Energy Tidbits

EIA's LNG Export Capacity Forecast Reminds There is an Opportunity for >15 bcf/d of Added US/CAN Natural Gas Supply

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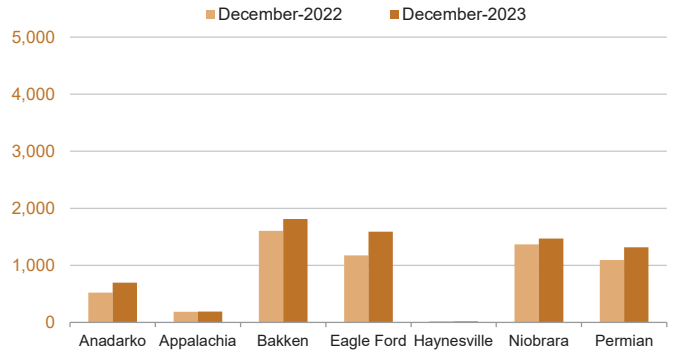
Year-over-year summary

Drilling Productivity Report

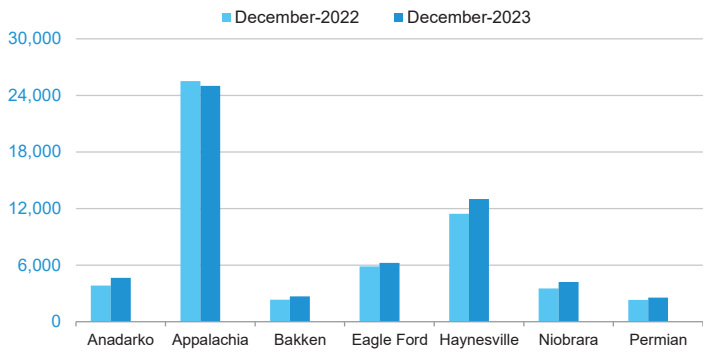
November 2023

drilling data through October
projected production through December

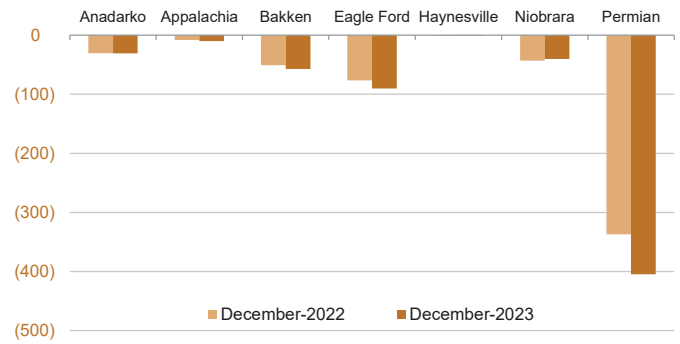
New-well oil production per rig
barrels/day



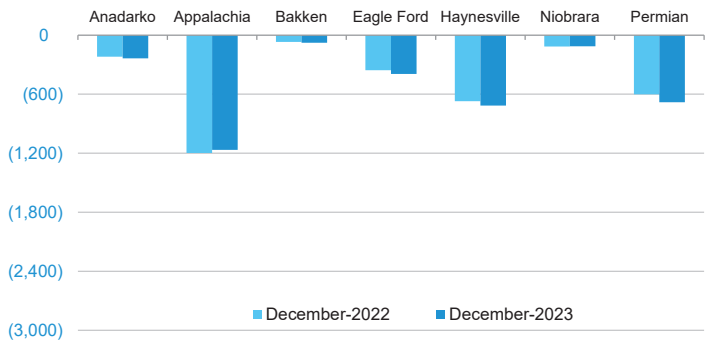
New-well gas production per rig
thousand cubic feet/day



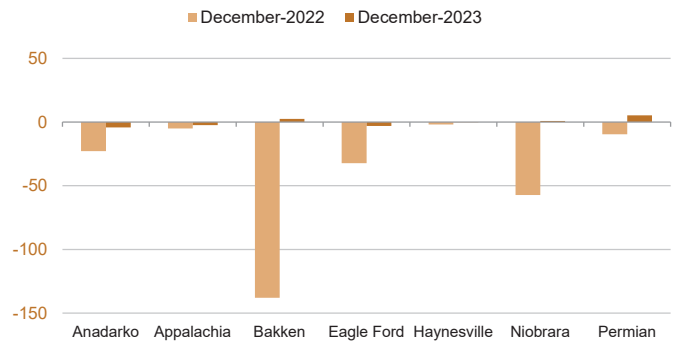
Legacy oil production change
thousand barrels/day



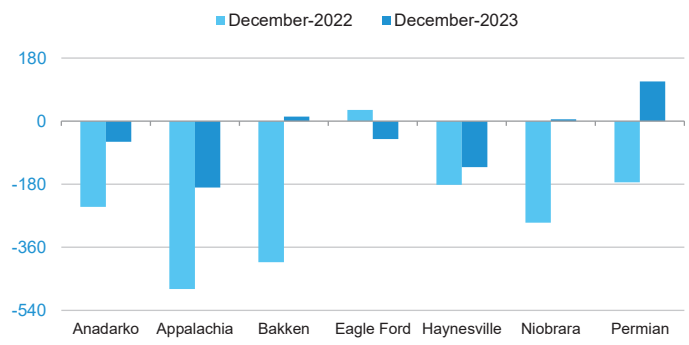
Legacy gas production change
million cubic feet/day



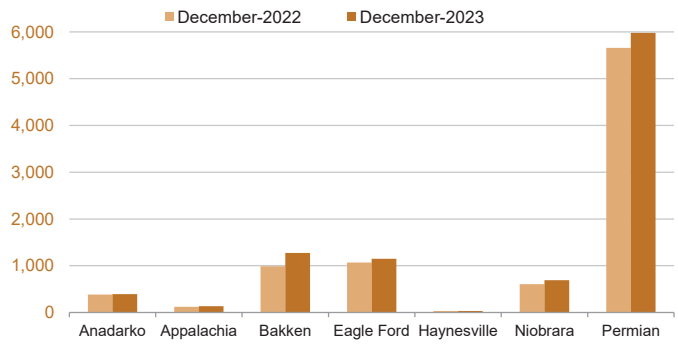
Indicated monthly change in oil production (Dec vs. Nov)
thousand barrels/day



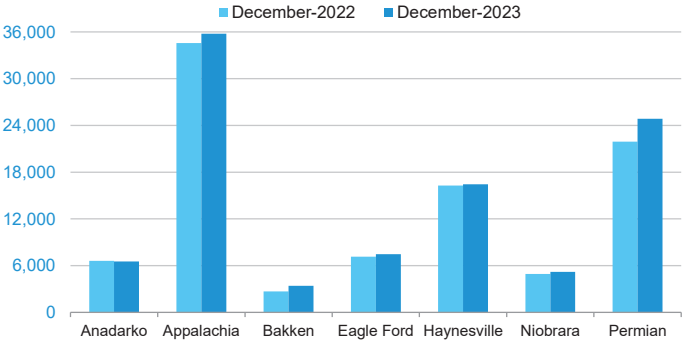
Indicated monthly change in gas production (Dec vs. Nov)
million cubic feet/day



Oil production
thousand barrels/day



Natural gas production
million cubic feet/day



Anadarko Region

Drilling Productivity Report

November 2023

drilling data through October
projected production through December

Oil +9
barrels/day
month over month

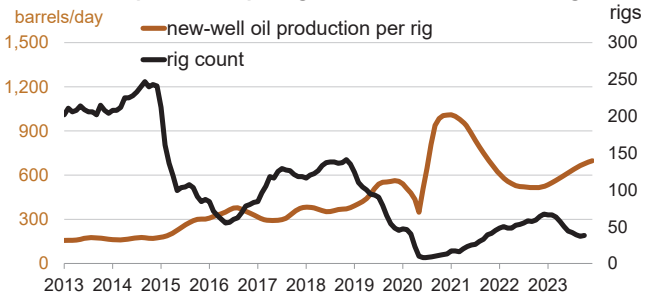
698 *December*
689 *November*
barrels/day

Monthly additions from one average rig

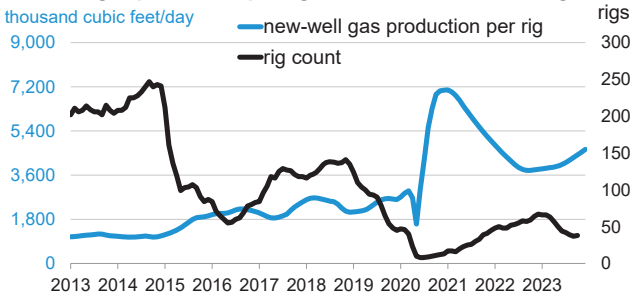
December **4,652**
November **4,539**
thousand cubic feet/day

Gas +113
thousand cubic feet/day
month over month

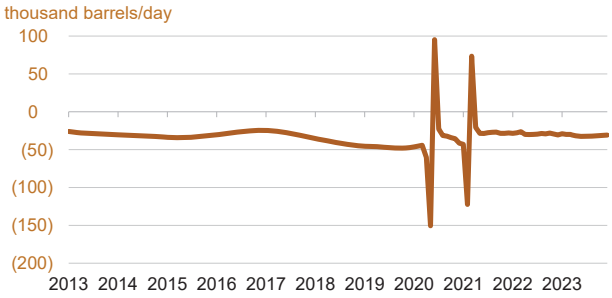
Anadarko Region
New-well oil production per rig



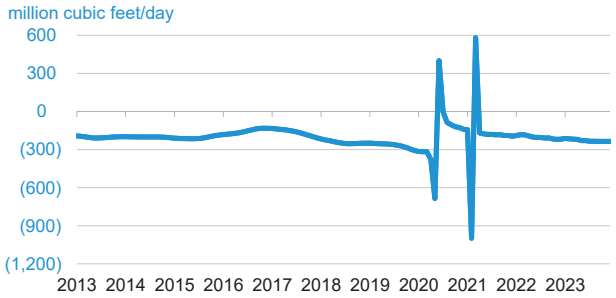
Anadarko Region
New-well gas production per rig



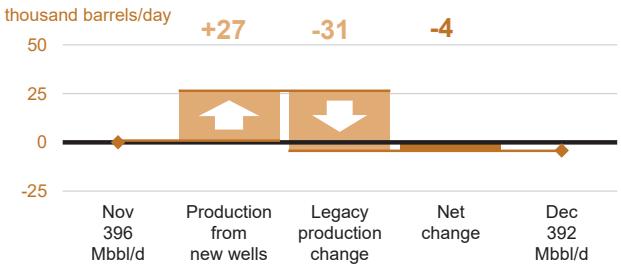
Anadarko Region
Legacy oil production change



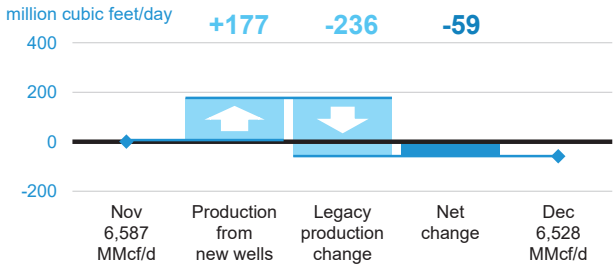
Anadarko Region
Legacy gas production change



Anadarko Region
Indicated change in oil production (Dec vs. Nov)



Anadarko Region
Indicated change in natural gas production (Dec vs. Nov)

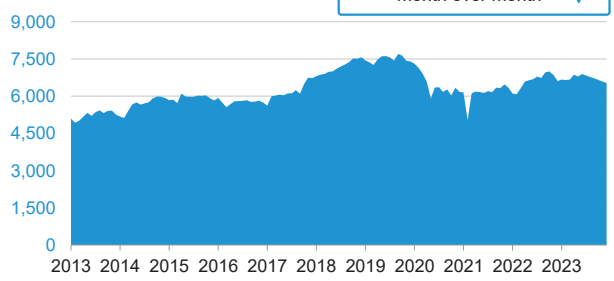


Anadarko Region
Oil production

Oil -4
thousand barrels/day
month over month

Anadarko Region
Natural gas production

Gas -59
million cubic feet/day
month over month



Appalachia Region
Drilling Productivity Report

November 2023

drilling data through October
projected production through December

Oil 0 barrels/day month over month

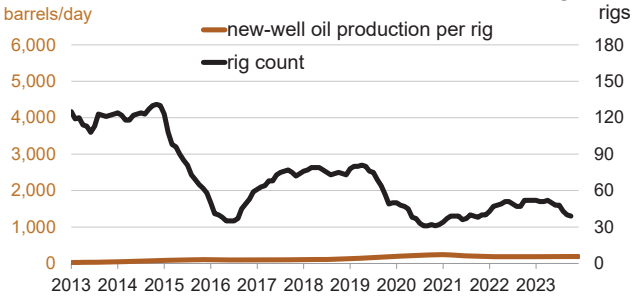
191 *December*
191 *November*
barrels/day

Monthly additions from one average rig

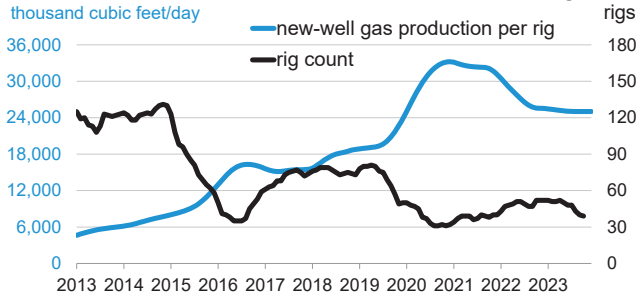
December **25,019**
November **25,014**
thousand cubic feet/day

Gas +5 thousand cubic feet/day month over month

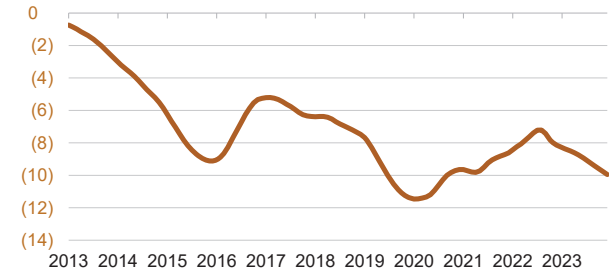
Appalachia Region
New-well oil production per rig



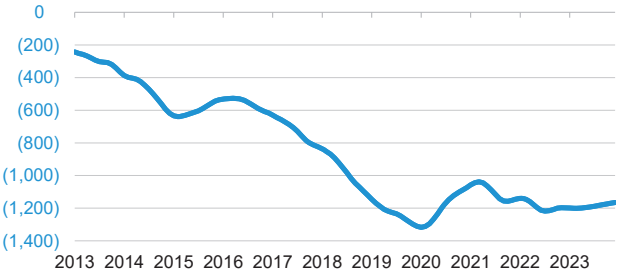
Appalachia Region
New-well gas production per rig



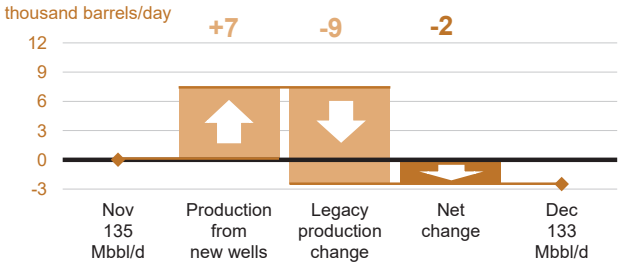
Appalachia Region
Legacy oil production change



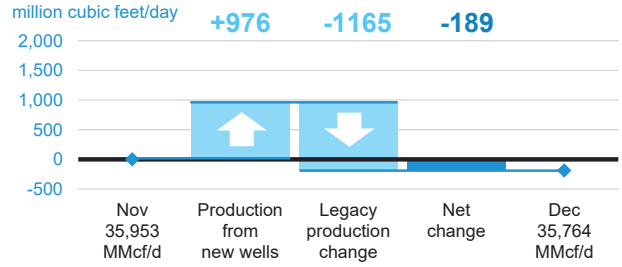
Appalachia Region
Legacy gas production change



Appalachia Region
Indicated change in oil production (Dec vs. Nov)

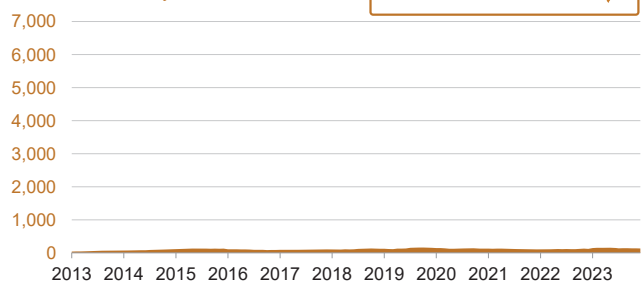


Appalachia Region
Indicated change in natural gas production (Dec vs. Nov)



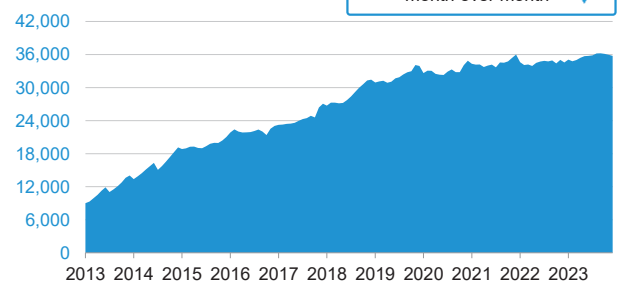
Appalachia Region
Oil production

Oil -2 thousand barrels/day month over month



Appalachia Region
Natural gas production

Gas -189 million cubic feet/day month over month



Bakken Region
Drilling Productivity Report

November 2023

drilling data through October
projected production through December

Oil +27
barrels/day
month over month

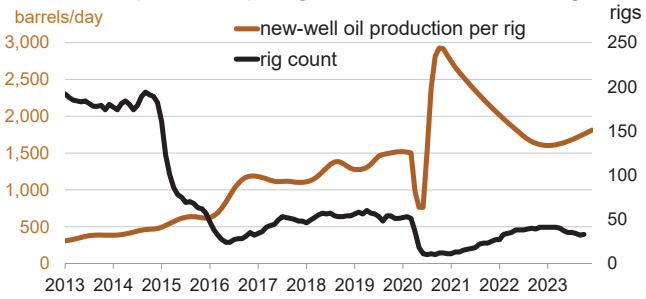
1,811 *December*
1,784 *November*
barrels/day

Monthly additions from one average rig

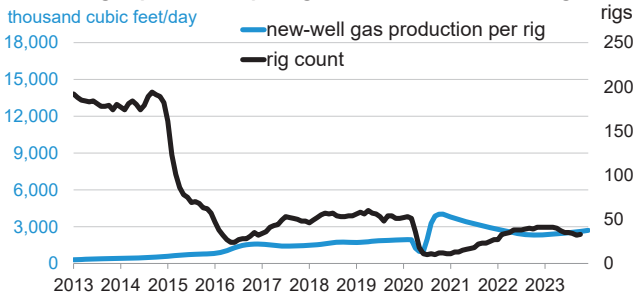
December **2,694**
November **2,654**
thousand cubic feet/day

Gas +40
thousand cubic feet/day
month over month

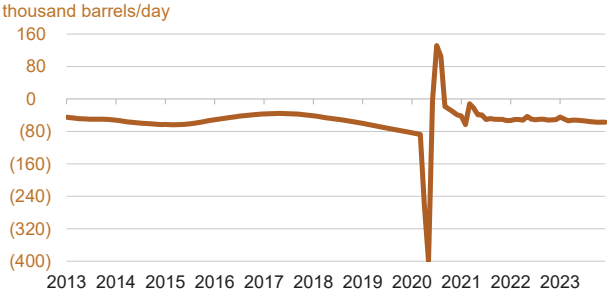
Bakken Region
New-well oil production per rig



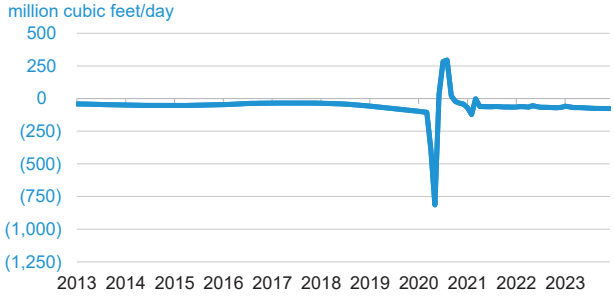
Bakken Region
New-well gas production per rig



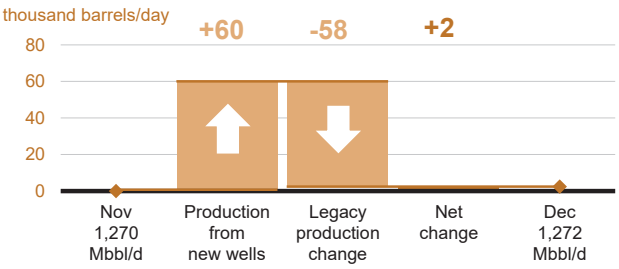
Bakken Region
Legacy oil production change



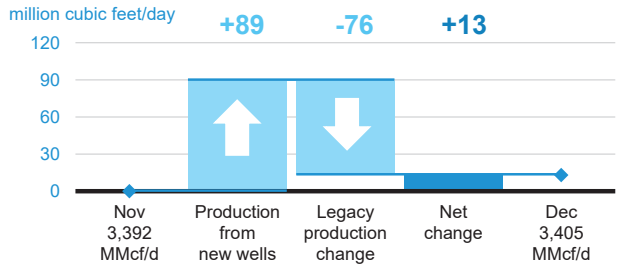
Bakken Region
Legacy gas production change



Bakken Region
Indicated change in oil production (Dec vs. Nov)

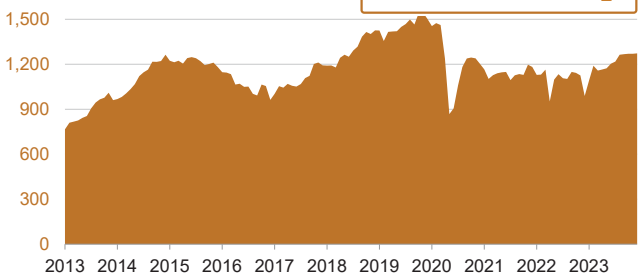


Bakken Region
Indicated change in natural gas production (Dec vs. Nov)



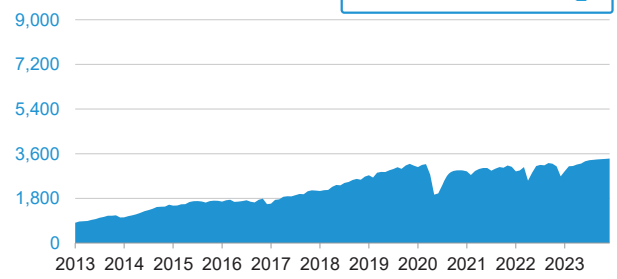
Bakken Region
Oil production

Oil +2
thousand barrels/day
month over month



Bakken Region
Natural gas production

Gas +13
million cubic feet/day
month over month



Eagle Ford Region
Drilling Productivity Report

November 2023

drilling data through October
projected production through December

Oil +61 barrels/day month over month

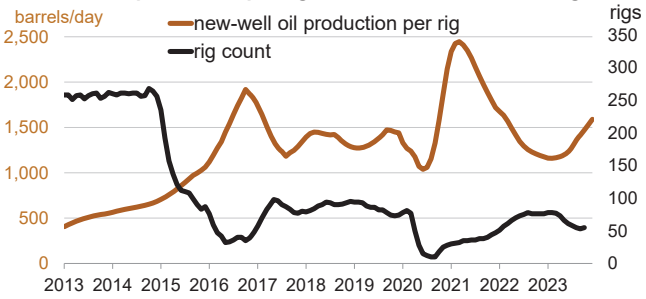
1,590 *December*
1,529 *November*
barrels/day

Monthly additions from one average rig

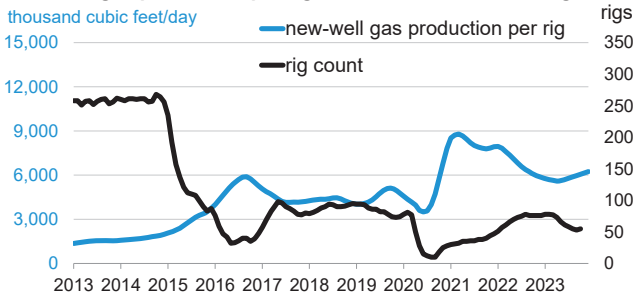
December **6,240**
November **6,148**
thousand cubic feet/day

Gas +92 thousand cubic feet/day month over month

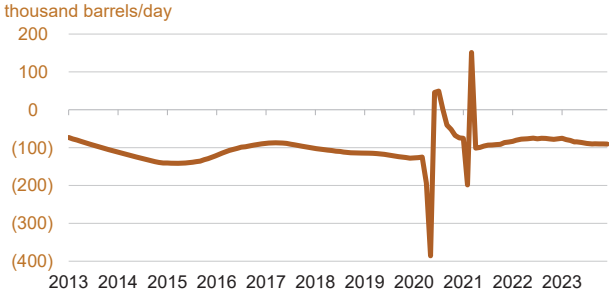
Eagle Ford Region
New-well oil production per rig



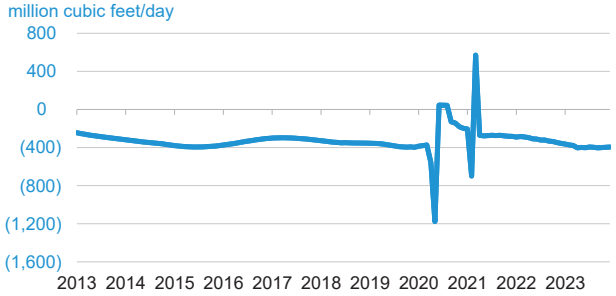
Eagle Ford Region
New-well gas production per rig



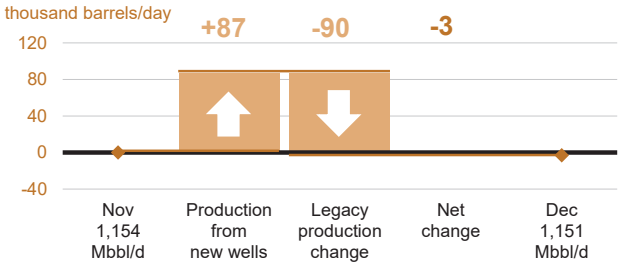
Eagle Ford Region
Legacy oil production change



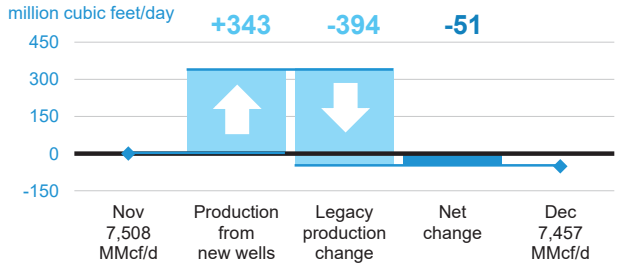
Eagle Ford Region
Legacy gas production change



Eagle Ford Region
Indicated change in oil production (Dec vs. Nov)

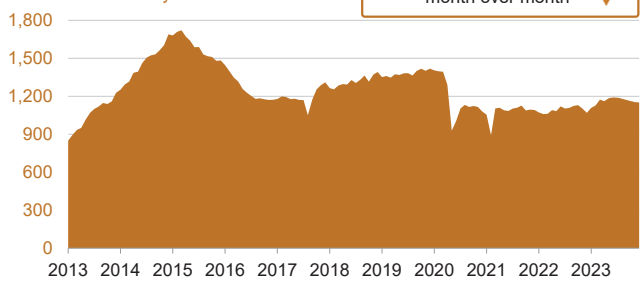


Eagle Ford Region
Indicated change in natural gas production (Dec vs. Nov)



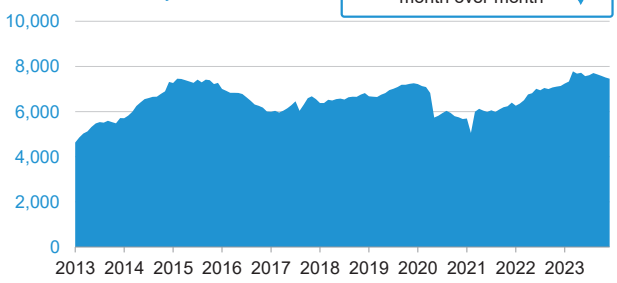
Eagle Ford Region
Oil production

Oil -3 thousand barrels/day month over month



Eagle Ford Region
Natural gas production

Gas -51 million cubic feet/day month over month



Haynesville Region

Drilling Productivity Report

November 2023

drilling data through October
projected production through December

Oil 0
barrels/day
month over month

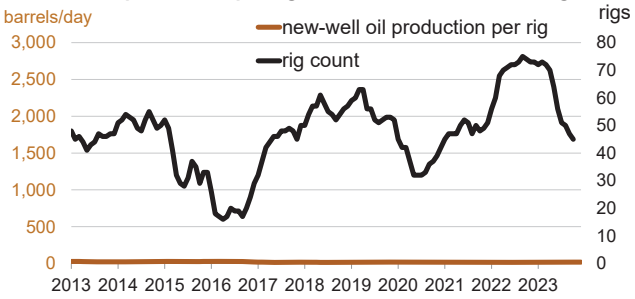
18 *December*
18 *November*
barrels/day

Monthly additions from one average rig

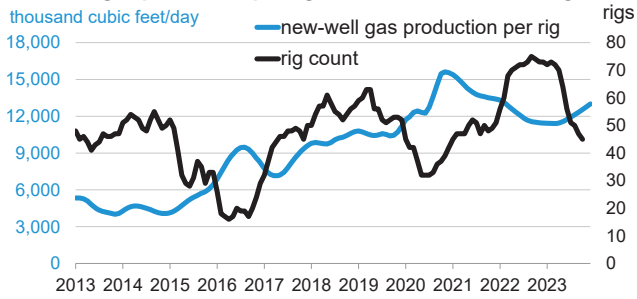
December **13,001**
November **12,772**
thousand cubic feet/day

Gas +229
thousand cubic feet/day
month over month

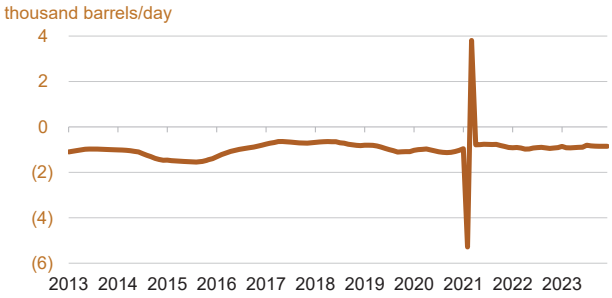
Haynesville Region
New-well oil production per rig



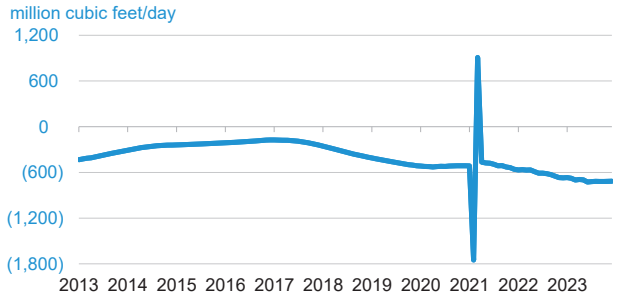
Haynesville Region
New-well gas production per rig



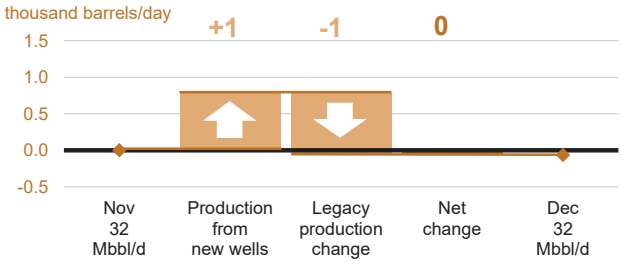
Haynesville Region
Legacy oil production change



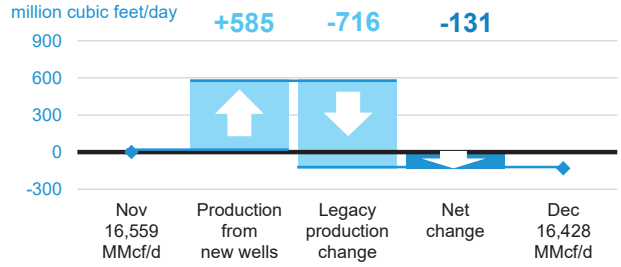
Haynesville Region
Legacy gas production change



Haynesville Region
Indicated change in oil production (Dec vs. Nov)

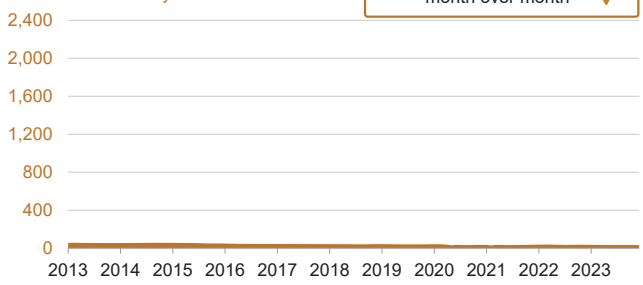


Haynesville Region
Indicated change in natural gas production (Dec vs. Nov)



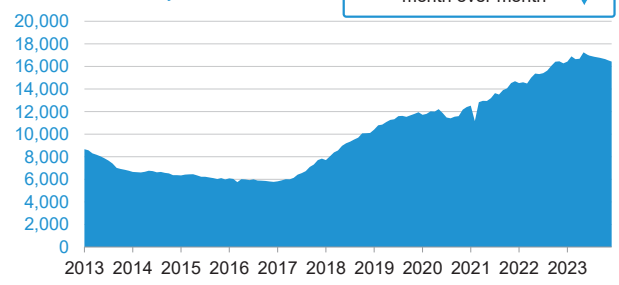
Haynesville Region
Oil production

Oil 0
thousand barrels/day
month over month



Haynesville Region
Natural gas production

Gas -131
million cubic feet/day
month over month



Niobrara Region
Drilling Productivity Report

November 2023

drilling data through October
projected production through December

Oil +9 barrels/day month over month

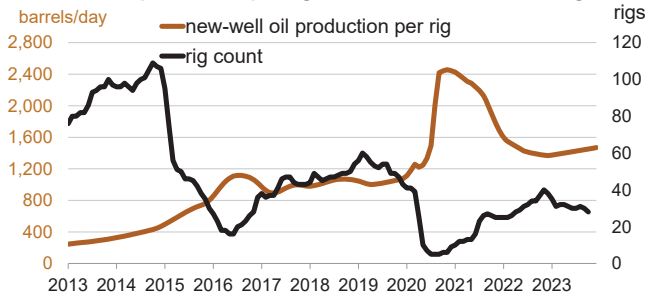
1,469 *December*
1,460 *November*
barrels/day

Monthly additions from one average rig

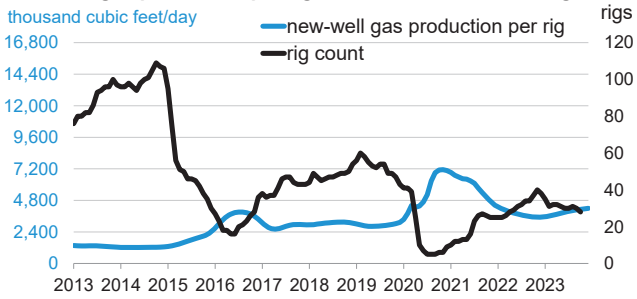
December **4,199**
November **4,158**
thousand cubic feet/day

Gas +41 thousand cubic feet/day month over month

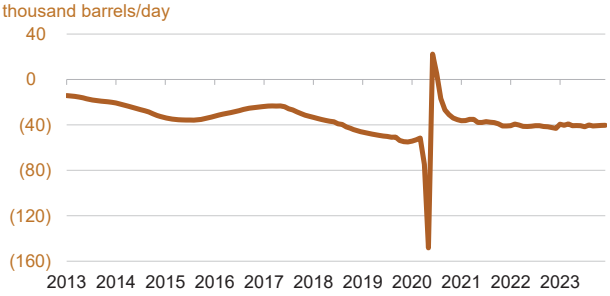
Niobrara Region
New-well oil production per rig



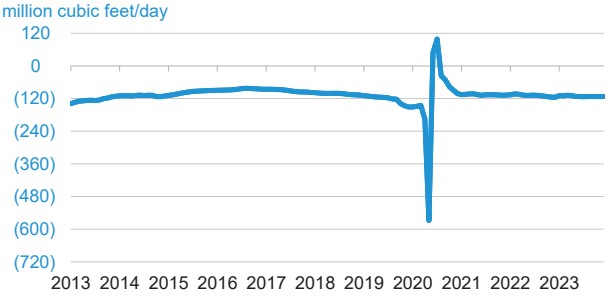
Niobrara Region
New-well gas production per rig



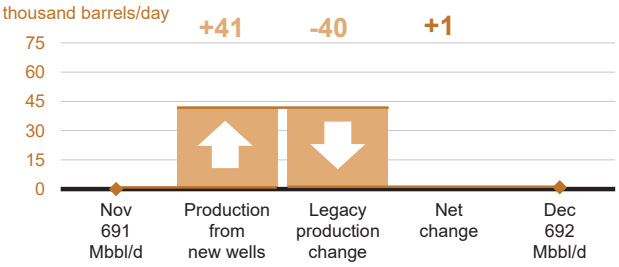
Niobrara Region
Legacy oil production change



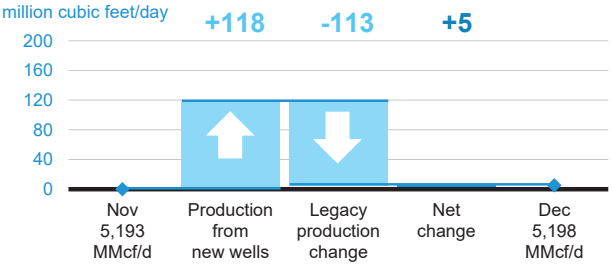
Niobrara Region
Legacy gas production change



Niobrara Region
Indicated change in oil production (Dec vs. Nov)

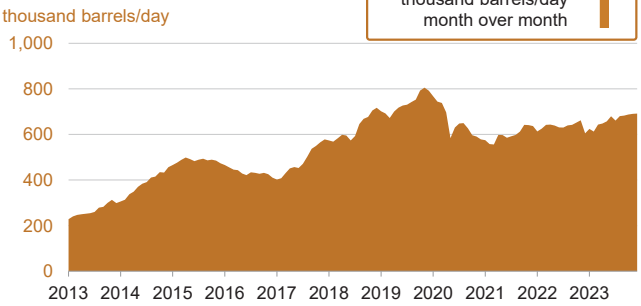


Niobrara Region
Indicated change in natural gas production (Dec vs. Nov)



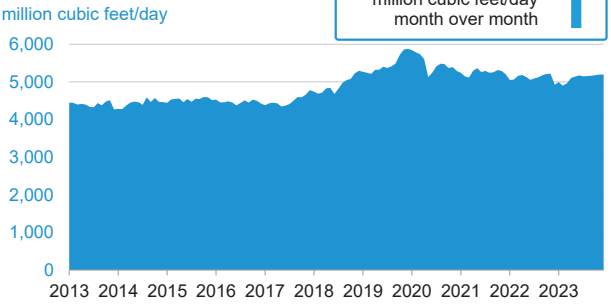
Niobrara Region
Oil production

Oil +1 thousand barrels/day month over month



Niobrara Region
Natural gas production

Gas +5 million cubic feet/day month over month



Permian Region
Drilling Productivity Report

November 2023

drilling data through October
projected production through December

Oil +30 barrels/day month over month

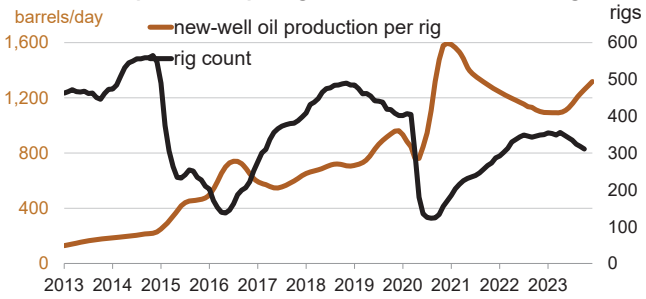
1,319 *December*
1,289 *November*
barrels/day

Monthly additions from one average rig

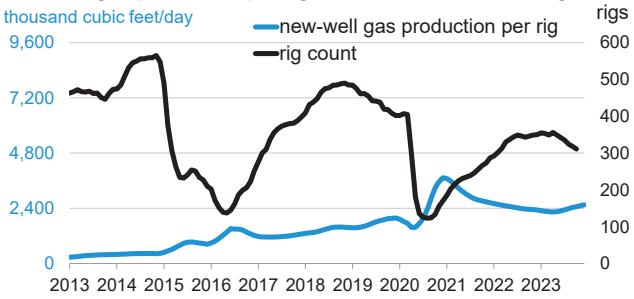
December **2,552**
November **2,512**
thousand cubic feet/day

Gas +40 thousand cubic feet/day month over month

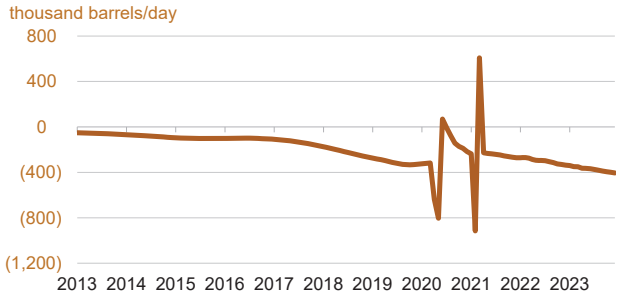
Permian Region
New-well oil production per rig



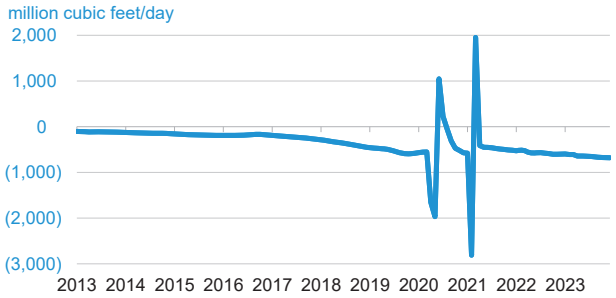
Permian Region
New-well gas production per rig



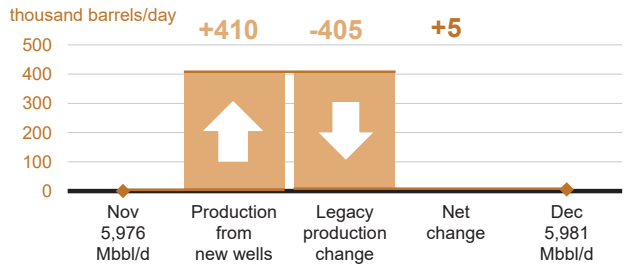
Permian Region
Legacy oil production change



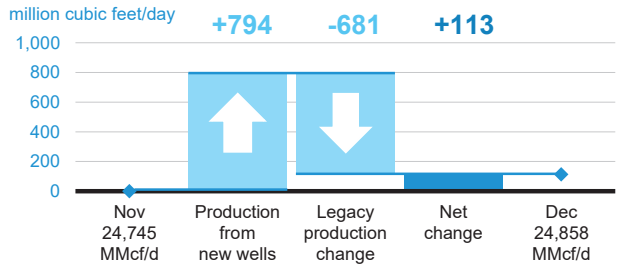
Permian Region
Legacy gas production change



Permian Region
Indicated change in oil production (Dec vs. Nov)

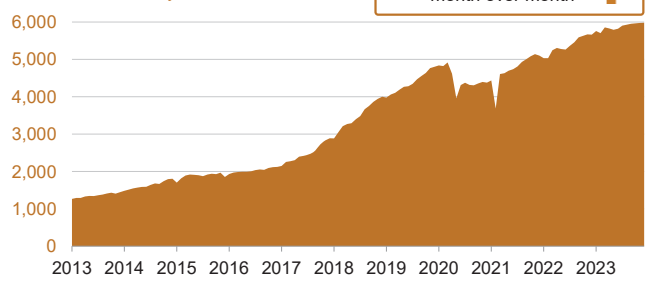


Permian Region
Indicated change in natural gas production (Dec vs. Nov)



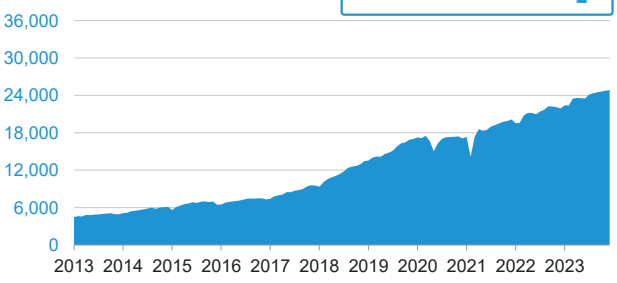
Permian Region
Oil production

Oil +5 thousand barrels/day month over month



Permian Region
Natural gas production

Gas +113 million cubic feet/day month over month



The Drilling Productivity Report uses recent data on the total number of drilling rigs in operation along with estimates of drilling productivity and estimated changes in production from existing oil and natural gas wells to provide estimated changes in oil[1] and natural gas[2] production for seven key regions. EIA's approach does not distinguish between oil-directed rigs and gas-directed rigs because once a well is completed it may produce both oil and gas; more than half of the wells do that.

Monthly additions from one average rig

Monthly additions from one average rig represent EIA's estimate of an average rig's[3] contribution to production of oil and natural gas from new wells.[4] The estimation of new-well production per rig uses several months of recent historical data on total production from new wells for each field divided by the region's monthly rig count, lagged by two months.[5] Current- and next-month values are listed on the top header. The month-over-month change is listed alongside, with +/- signs and color-coded arrows to highlight the growth or decline in oil (brown) or natural gas (blue).

New-well oil/gas production per rig

Charts present historical estimated monthly additions from one average rig coupled with the number of total drilling rigs as reported by Baker Hughes.

Legacy oil and natural gas production change

Charts present EIA's estimates of total oil and gas production changes from all the wells other than the new wells. The trend is dominated by the well depletion rates, but other circumstances can influence the direction of the change. For example, well freeze-offs or hurricanes can cause production to significantly decline in any given month, resulting in a production increase the next month when production simply returns to normal levels.

Projected change in monthly oil/gas production

Charts present the combined effects of new-well production and changes to legacy production. Total new-well production is offset by the anticipated change in legacy production to derive the net change in production. The estimated change in production does not reflect external circumstances that can affect the actual rates, such as infrastructure constraints, bad weather, or shut-ins based on environmental or economic issues.

Oil/gas production

Charts present all oil and natural gas production from both new and legacy wells since 2007. This production is based on all wells reported to the state oil and gas agencies. Where state data are not immediately available, EIA estimates the production based on estimated changes in new-well oil/gas production and the corresponding legacy change.

Footnotes:

1. Oil production represents both crude and condensate production from all formations in the region. Production is not limited to tight formations. The regions are defined by all selected counties, which include areas outside of tight oil formations.
2. Gas production represents gross (before processing) gas production from all formations in the region. Production is not limited to shale formations. The regions are defined by all selected counties, which include areas outside of shale formations.
3. The monthly average rig count used in this report is calculated from weekly data on total oil and gas rigs reported by Baker Hughes.
4. A new well is defined as one that began producing for the first time in the previous month. Each well belongs to the new-well category for only one month. Reworked and recompleted wells are excluded from the calculation.
5. Rig count data lag production data because EIA has observed that the best predictor of the number of new wells beginning production in a given month is the count of rigs in operation two months earlier.

The data used in the preparation of this report come from the following sources. EIA is solely responsible for the analysis, calculations, and conclusions.

Drilling Info (http://www.drillinginfo.com) Source of production, permit, and spud data for counties associated with this report. Source of real-time rig location to estimate new wells spudded and completed throughout the United States.

Baker Hughes (http://www.bakerhughes.com) Source of rig and well counts by county, state, and basin.

North Dakota Oil and Gas Division (https://www.dmr.nd.gov/oilgas) Source of well production, permit, and completion data in the counties associated with this report in North Dakota

Railroad Commission of Texas (http://www.rrc.state.tx.us) Source of well production, permit, and completion data in the counties associated with this report in Texas

Pennsylvania Department of Environmental Protection (https://www.paoilandgasreporting.state.pa.us/publicreports/Modules/Welcome/Welcome.aspx) Source of well production, permit, and completion data in the counties associated with this report in Pennsylvania

West Virginia Department of Environmental Protection (http://www.dep.wv.gov/oil-and-gas/Pages/default.aspx) Source of well production, permit, and completion data in the counties associated with this report in West Virginia

Colorado Oil and Gas Conservation Commission (http://cogcc.state.co.us) Source of well production, permit, and completion data in the counties associated with this report in Colorado

Wyoming Oil and Conservation Commission (http://wogcc.state.wy.us) Source of well production, permit, and completion data in the counties associated with this report in Wyoming

Louisiana Department of Natural Resources (http://dnr.louisiana.gov) Source of well production, permit, and completion data in the counties associated with this report in Louisiana

Ohio Department of Natural Resources (http://oilandgas.ohiodnr.gov) Source of well production, permit, and completion data in the counties associated with this report in Ohio

Oklahoma Corporation Commission (http://www.occeweb.com/og/oghome.htm) Source of well production, permit, and completion data in the counties associated with this report in Oklahoma

Summary

Overview of Activity for September 2023

- **Top five countries of destination, representing 42.2% of total U.S. LNG exports in September 2023**
  - Netherlands (39.7 Bcf), Japan (33.2 Bcf), France (28.7 Bcf), South Korea (24.1 Bcf), and Italy (22.1 Bcf)
- **350.1 Bcf of exports in September 2023**
  - 0.8% decrease from August 2023
  - 18.6% more than September 2022
- **107 cargos shipped in September 2023**
  - Sabine Pass (33), Cameron (28), Freeport (18), Corpus Christi (17), Elba (6), and Cove Point (5)
  - 114 cargos in August 2023
  - 98 cargos in September 2022

1a. Table of Exports of Domestically-Produced LNG Delivered by Region (Cumulative from February 2016 through September 2023)

Region	Number of Countries Receiving Per Region	Volume Exported (Bcf)	Percentage Receipts of Total Volume Exported (%)	Number of Cargos*
East Asia and Pacific	8	5,164.3	30.8%	1541
Europe and Central Asia	15	7,837.9	46.8%	2448
Latin America and the Caribbean**	14	2,372.2	14.2%	867
Middle East and North Africa	5	415.1	2.5%	121
South Asia	3	963.6	5.8%	285
Sub-Saharan Africa	0	0.0	0.0%	0
Total LNG Exports	**45**	**16,753.1**	**100.0%**	**5,262**

*Split cargos counted as both individual cargos and countries

**Number of cargos does not include the shipments by ISO container

1b. Shipments of Domestically-Produced LNG Delivered – by Country
(Cumulative from February 2016 through September 2023)

	Country of Destination	Region	Number of Cargos	Volume (Bcf of Natural Gas)	Percentage of Total U.S LNG Exports (%)
1.	South Korea*	East Asia and Pacific	553	1,911.3	11.4%
2.	Japan*	East Asia and Pacific	430	1,465.5	8.7%
3.	United Kingdom*	Europe and Central Asia	398	1,324.4	7.9%
4.	France*	Europe and Central Asia	401	1,304.7	7.8%
5.	Spain*	Europe and Central Asia	398	1,241.1	7.4%
6.	Netherlands*	Europe and Central Asia	351	1,188.9	7.1%
7.	China*	East Asia and Pacific	331	1,108.8	6.6%
8.	India*	South Asia	221	752.6	4.5%
9.	Turkiye*	Europe and Central Asia	210	671.2	4.0%
10.	Brazil*	Latin America and the Caribbean	229	635.9	3.8%
11.	Mexico*	Latin America and the Caribbean	167	555.1	3.3%
12.	Italy*	Europe and Central Asia	143	463.3	2.8%
13.	Chile*	Latin America and the Caribbean	143	450.5	2.7%
14.	Taiwan*	East Asia and Pacific	129	411.2	2.5%
15.	Poland*	Europe and Central Asia	110	365.4	2.2%
16.	Argentina*	Latin America and the Caribbean	142	342.2	2.0%
17.	Portugal*	Europe and Central Asia	101	321.3	1.9%
18.	Dominican Republic*	Latin America and the Caribbean	88	210.9	1.3%
19.	Greece*	Europe and Central Asia	91	206.6	1.2%
20.	Belgium*	Europe and Central Asia	61	193.2	1.2%
21.	Kuwait	Middle East and North Africa	55	191.5	1.1%
22.	Lithuania	Europe and Central Asia	61	189.2	1.1%
23.	Croatia	Europe and Central Asia	52	159.1	0.9%
24.	Germany	Europe and Central Asia	48	156.1	0.9%
25.	Pakistan*	South Asia	40	128.9	0.8%
26.	Jordan*	Middle East and North Africa	37	127.5	0.8%
27.	Singapore*	East Asia and Pacific	38	124.4	0.7%
28.	Thailand*	East Asia and Pacific	35	123.4	0.7%
29.	Bangladesh*	South Asia	24	82.1	0.5%
30.	Panama*	Latin America and the Caribbean	35	67.7	0.4%
31.	Jamaica*	Latin America and the Caribbean	36	63.6	0.4%
32.	United Arab Emirates	Middle East and North Africa	15	51.1	0.3%
33.	Colombia*	Latin America and the Caribbean	26	40.5	0.2%
34.	Finland	Europe and Central Asia	12	33.1	0.2%
35.	Israel*	Middle East and North Africa	9	28.0	0.2%
36.	Malta*	Europe and Central Asia	11	20.1	0.1%
37.	Egypt*	Middle East and North Africa	5	16.9	0.1%
38.	Indonesia*	East Asia and Pacific	24	16.0	0.1%
39.	Malaysia	East Asia and Pacific	1	3.7	0.0%
40.	El Salvador	Latin America and the Caribbean	1	0.0	0.0%
	Total Exports by Vessel		**5,262**	**16,747.3**	
	Jamaica	Latin America and the Caribbean	187	2.0	0.0%
41.	Bahamas	Latin America and the Caribbean	798	1.9	0.0%
42.	Barbados	Latin America and the Caribbean	305	1.3	0.0%
43.	Haiti	Latin America and the Caribbean	157	0.5	0.0%
44.	Antigua and Barbuda	Latin America and the Caribbean	69	0.1	0.0%
45.	Nicaragua	Latin America and the Caribbean	1	0.0	0.0%
	Germany	Europe and Central Asia	1	0.0	0.0%
	Total Exports by ISO		**1,518**	**5.8**	
	Total Exports by Vessel and ISO		**6,780**	**16,753.1**	

Note:

Volume and Number of Cargos are the cumulative totals of each individual Country of Destination by Region starting from February 2016.

Jamaica has received U.S. LNG exports by both vessel and ISO container. The volumes are totaled separately

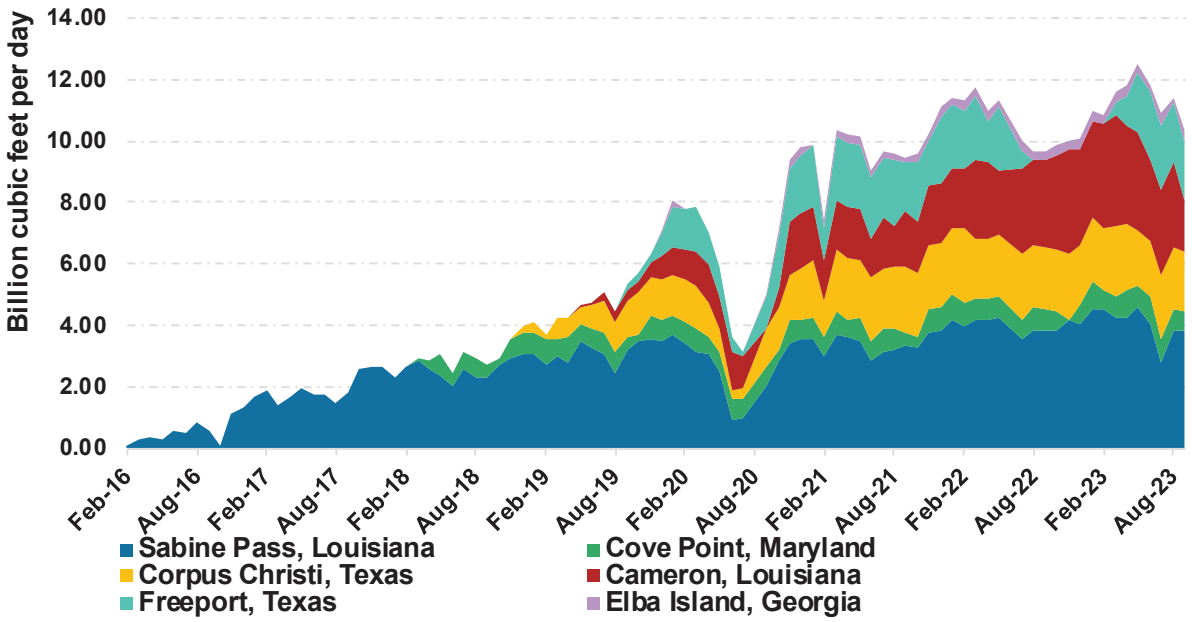
* Split cargos counted as both individual cargos and countries.

Vessel = LNG Exports by Vessel and ISO container = LNG Exports by Vessel in ISO Containers.

Does not include re-exports of previously-imported LNG. See table 2c for re-exports data.

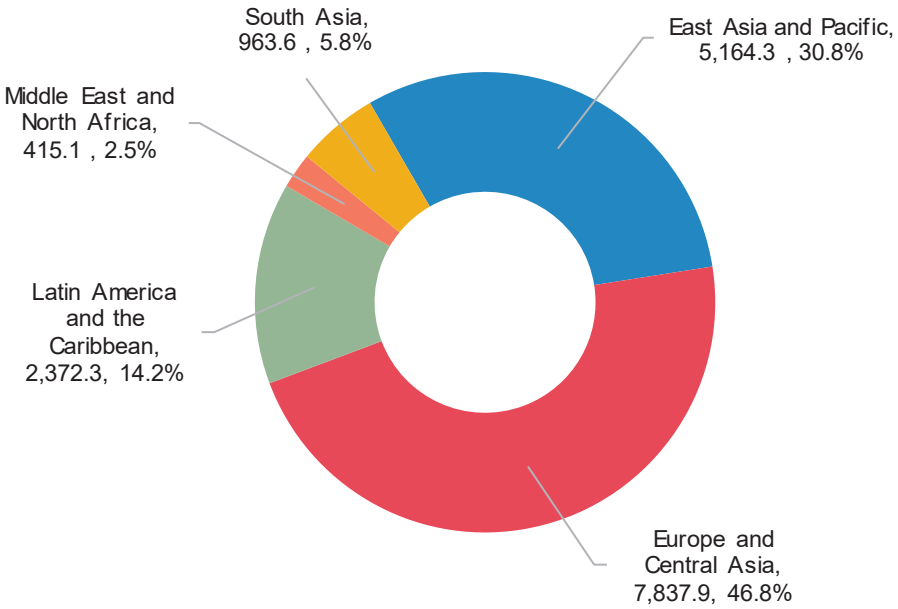
Totals may not equal sum of components because of independent rounding.

1c. Domestically-Produced LNG Exported by Point of Exit
(February 2016 through September 2023)



The Cameron, LA point of exit includes exports from Cameron LNG and Venture Global Calcasieu Pass.

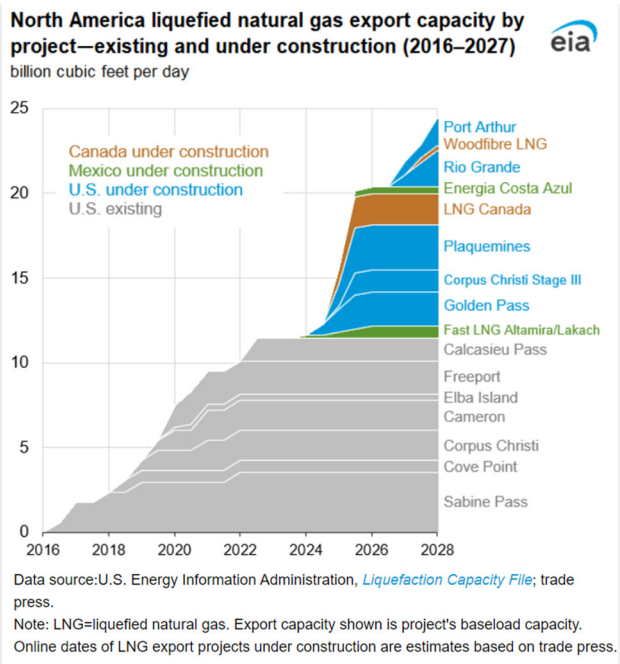
1d. Domestically-Produced LNG Exported by Region
(Cumulative from February 2016 through September 2023)
(Bcf, %)

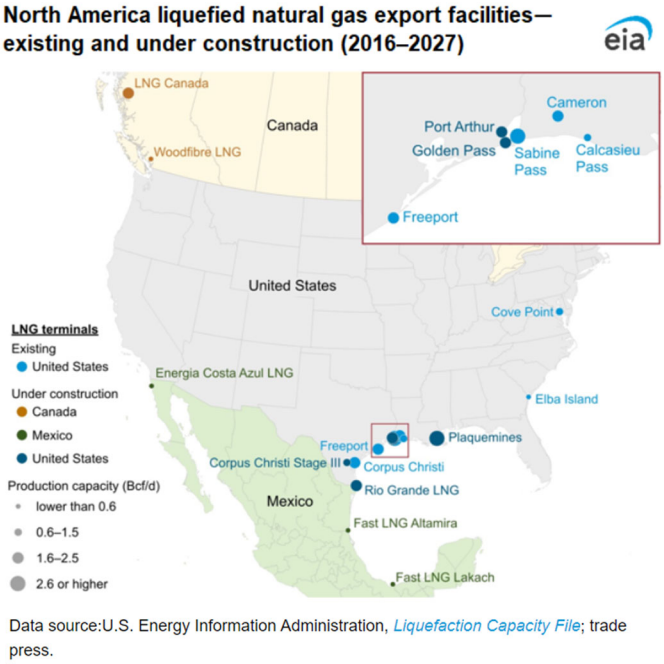


https://www.eia.gov/naturalgas/weekly/archivenew_ngwu/2023/10_26/

Natural Gas Weekly Update

for week ending October 25, 2023 | **Release date:** October 26, 2023 | **Next release:** November 2, 2023 | Previous weeks





LNG exports from North America are set to expand with new projects

Over the next five years, we expect North America's liquefied natural gas (LNG) export capacity to expand by 12.9 billion cubic feet per day (Bcf/d) as Mexico and Canada place into service their first LNG export terminals and the United States adds to its 11.4 Bcf/d of existing LNG capacity. By the end of 2027, we estimate LNG export capacity will grow by 1.1 Bcf/d in Mexico, 2.1 Bcf/d in Canada, and 9.7 Bcf/d in the United States from a total of ten new projects across the three countries.

Mexico. Three projects with a combined LNG export capacity of 1.1 Bcf/d are currently under construction—Fast LNG Altamira offshore and onshore, Fast LNG Lakach on the east coast, and Energia Costa Azul on the west coast.

- Fast LNG Altamira consists of three units, each with a capacity to liquefy up to 0.18 Bcf/d. The first unit will be located offshore and the other two units will be installed onshore at the Altamira LNG regasification terminal. These units will be supplied by natural gas from the United States delivered via the Sur de Texas-Tuxpan pipeline. The first LNG exports from the offshore unit are expected in December 2023, and LNG exports from the onshore units are expected in 2025.
- The Fast LNG Lakach unit (capacity 0.18 Bcf/d) will be installed offshore of Veracruz, Mexico, at the nearby Lakach natural gas field. First LNG exports are expected in 2026.
- The Energia Costa Azul LNG export terminal is located at the site of the existing LNG regasification terminal in Baja California, western Mexico. The LNG export capacity will be 0.4 Bcf/d for Phase 1 (under construction) and 1.6 Bcf/d for Phase 2 (proposed). The export terminal will be supplied with natural gas from the Permian Basin in the United States.

Developers have proposed other LNG export projects for Mexico's west coast, including Saguaro Energia LNG, Salina Cruz FLNG, and Vista Pacifico LNG, which have a combined capacity over 2.7 Bcf/d. These projects will use relatively low-cost natural gas imported from the United States for LNG exports to Asian markets. However, none of these proposed projects has reached a final investment decision yet.

Canada. Two LNG export projects with a combined capacity of 2.1 Bcf/d are under construction in British Columbia on Canada's west coast. LNG Canada (with an export capacity of 1.8 Bcf/d) is scheduled to begin service in 2025, and Woodfibre LNG (0.3 Bcf/d) is scheduled to begin service in 2027. Both export terminals will be supplied with natural gas from western Canada. In addition, the Canada Energy Regulator (CER) has authorized an additional 18 LNG export projects with a combined capacity of 29 Bcf/d.

United States. Five LNG export projects are currently under construction with a combined 9.7 Bcf/d of LNG export capacity—Golden Pass, Plaquemines, Corpus Christi Stage III, Rio Grande, and Port Arthur. LNG exports from Golden Pass LNG and Plaquemines LNG are expected to start in 2024.

https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/lng/111623-lng-vessels-may-have-to-opt-for-auctions-to-transit-panama-canal-in-december

- **LNG | SHIPPING | OIL & GAS**
- 16 Nov 2023 | 21:26 UTC

LNG vessels may have to opt for auctions to transit Panama Canal in December

-
- Author**Angeles Rodriguez Barbara Fernandez-pita**
- Editor**Benjamin Morse**
- Commodity**LNG**, **Shipping**, **Oil & Gas**
-

HIGHLIGHTS

Container ships to have priority over LNG vessels

Asia-bound spot cargoes likely to seek alternate routes

LNG vessels will likely have no choice but to participate in auctions to expedite their transit through the Panama Canal starting in December, given a change in the rules governing the booking slots available to them.

"Starting from December 1, only one slot will be available in period 1A and one slot in period 2. If container vessels secure these slots through the application of priority rules, LNG vessels will have no choice but to opt for auctions," a Panama Canal Authority spokesperson said via email Nov. 15

The current rules applicable to vessels transiting the Neopanamax locks, effective from Nov. 1, only allow LNG vessels to use the slots allocated to period 1A and period 2, corresponding to bookings made between 15-30 days before the desired transit date and bookings made 8-14 days in advance, respectively. Full container vessels, however, have first priority to book slots under these two periods, the spokesperson said.

While the total number of slots allocated to Neopanamax vessels is set to further reduce in January and February, the number of slots under periods 1A and 2 will remain at two, at least until further notice, based on the latest advisory on the matter the authority issued Oct. 30.

The Canal has experienced its most severe drought in years, leading the authority to implement restrictive water-saving measures over the past few months. Due to congestion at the waterway, vessels have been bidding significant amounts in auctions to skip the canal's queue. An LPG vessel recently paid nearly $4 million in an auction conducted earlier this month, the authority previously confirmed.

The anticipated inability for LNG vessels to reserve slots for transiting the canal starting in December will likely lead to spot cargoes bound for Asia to seek alternatives routes, trading sources said.

"A lot of spot cargoes have started to look for alternative routes," an Atlantic-based trader said. "I think the slight uptick we see [in Asian LNG prices] is because of that."

South Korean buyers of US LNG **have started bypassing the Panama Canal,** with at least two carriers heading to the Suez Canal, S&P Global Commodity Insights shipping data shows.

Japanese lifters of US LNG **are also considering alternative options** for shipping their winter cargoes to deal with the situation, S&P Global previously reported. The options include cargo swaps or routes via the Suez Canal or the Cape of Good Hope.

For Immediate Release
November 14, 2023
Lynn Helms, Ph.D., Director ND Department of Mineral Resources

NORTH Dakota Be Legendary.™ | Mineral Resources

North Dakota Department of Mineral Resources November Director's Cut and September 2023 Production Numbers

Oil Production Numbers

August	37,932,112 barrels	= 1,223,617 barrels/day (final) **RF+11%**
New Mexico	**54,501,947 barrels**	= **1,758,127** **+1%**
September	38,345,706 barrels	= 1,278,190 barrels/day **+4.5%** **RF +16%**
	1,519,037	all-time high Nov 2019
	1,247,270 barrels/day	= 98% from Bakken and Three Forks
	30,920 barrels/day	= 2% from Legacy Pools

Revenue Forecast **1,100,000 barrels/day**

Crude Price ($barrel)	ND Light Sweet	WTI	ND Market	
August	77.15	81.32	76.66	**RF+10%**
September	83.07	89.43	76.66	**RF+21%**
Today	72.55	78.26	75.41 est	**RF+8%**
All-time high (6/2008)	125.62	134.02	126.75	
Revenue Forecast			**70.00**	

Gas Production and Capture

August	102,700,479 MCF	=	3,312,919 MCF/Day	
95% Capture	97,906,324 MCF	=	3,158,269 MCF/Day	
September	103,208,514 MCF	=	3,440,284 MCF/Day	**+4%**
95% Capture	97,626,305 MCF	=	3,257,813 MCF/Day	

3,440,284 MCF/day **NEW** all-time high production September 2023
3,257,813 MCF/day all-time high capture Sep 2023

Wells Permitted

August	87	
September	59	
October	77	All-time high 370 in 10/2012

Rig Count

August	37	
September	37	
October	33	
Today	35	All-time high 218 on 5/29/2012
Federal Surface	1	
New Mexico	105	

Waiting on Completions

August	376
September	367

Inactive

August	1,624
September	1,547

Completed

August	91
September	129 (Preliminary)
October	96 (Preliminary)

Producing

August	18,396	
September	18,538 (Preliminary)	**NEW** All-time high 18,538 September/2023
	16,337 wells	88% are now unconventional Bakken/Three Forks Wells
	2,201 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	15	0
June	12	1
July	14	5
August	15	13
September	0	12
October	0	5
Total	70	36

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

Fort Berthold Reservation Activity

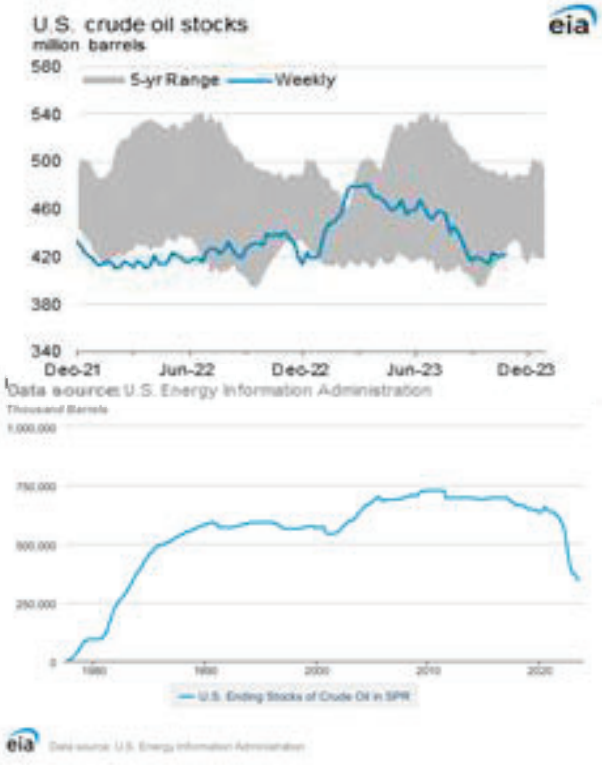
	Total	Fee Land	Trust Land
Oil Production (barrels/day)	142,984	57,776	85,208
Drilling Rigs	2	0	2
Active Wells	2,659	650	2,009
Waiting on Completion	20		
Approved Drilling Permits	164	37	127
Potential Future Wells	3,893	1,114	2,779

Comments:

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

There are 16 frac crews currently active.

Saudi Arabia and Russia announced continued oil production cuts amounting to 4.7 million bpd until the end 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 with comment deadline extended to 12/13/23.**

Drilling - activity is expected to slowly increase with operators expected to maintain a permit inventory of approximately 12 months.

MONTHLY UPDATE

NOVEMBER 2023 PRODUCTION & TRANSPORTATION

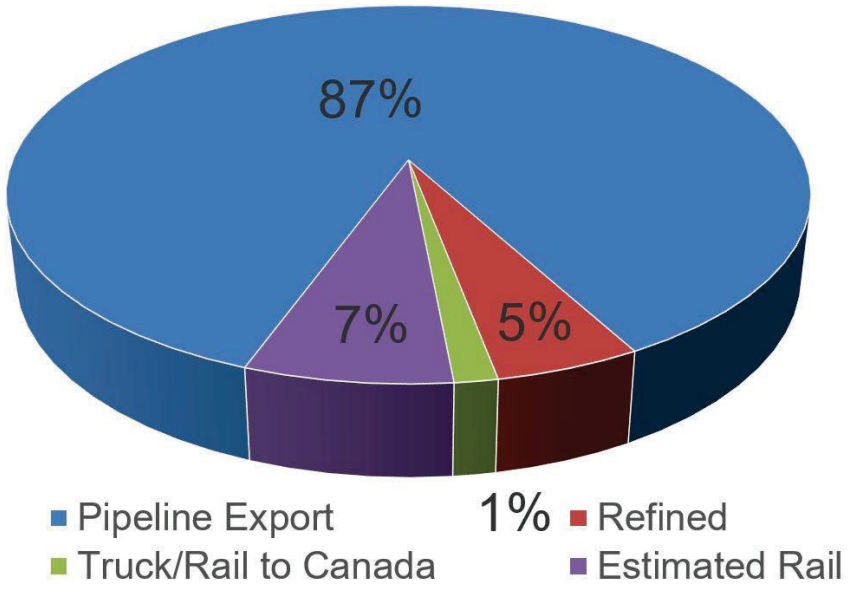
North Dakota Oil Production

Month	Monthly Total, BBL	Average, BOPD
Aug. 2023 - Final	37,932,112	1,223,617
Sep. 2023 - Prelim.	38,345,706	1,278,190

North Dakota Natural Gas Production

Month	Monthly Total, MCF	Average, MCFD
Aug. 2023 - Final	102,700,479	3,312,919
Sep. 2023 - Prelim.	103,208,514	3,440,284

Estimated Williston Basin Oil Transportation, Sep. 2023



CURRENT DRILLING ACTIVITY:

NORTH DAKOTA[1]

35 Rigs

EASTERN MONTANA[2]

3 Rigs

SOUTH DAKOTA[2]

0 Rigs

SOURCE (NOV 14, 2023):

1. ND Oil & Gas Division
2. Baker Hughes

PRICES:

Crude (WTI): $82.46

Crude (Brent): $85.63

NYMEX Gas: $3.10

SOURCE: BLOOMBERG (NOV 14, 2023 2:15PM EST)

GAS STATS*

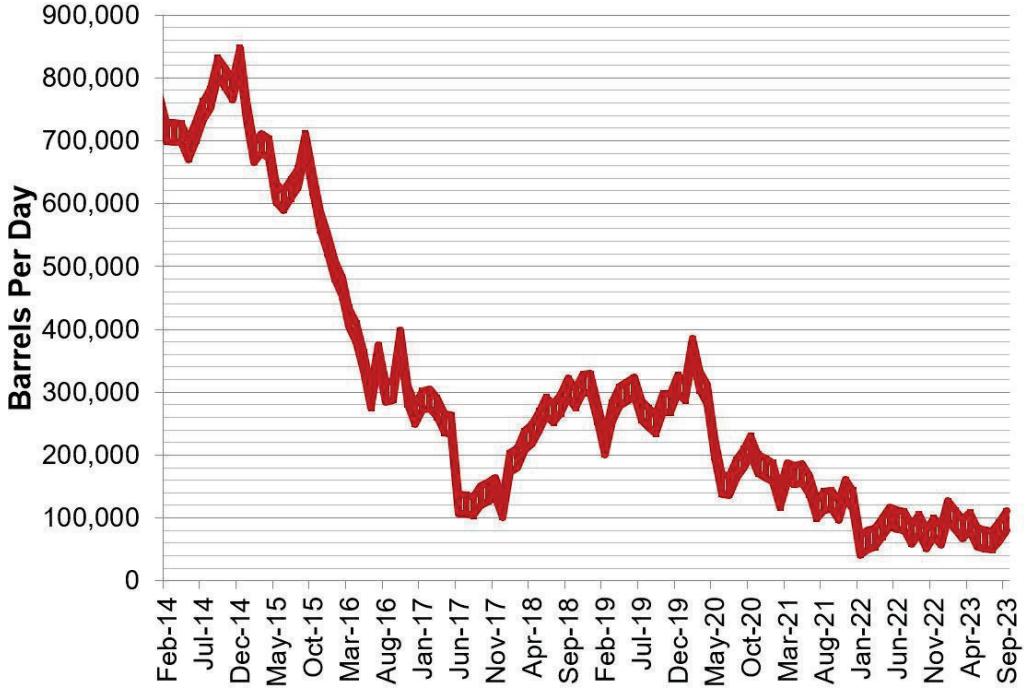
95% CAPTURED & SOLD

4% FLARED DUE TO CHALLENGES OR CONSTRAINTS ON EXISTING GATHERING SYSTEMS

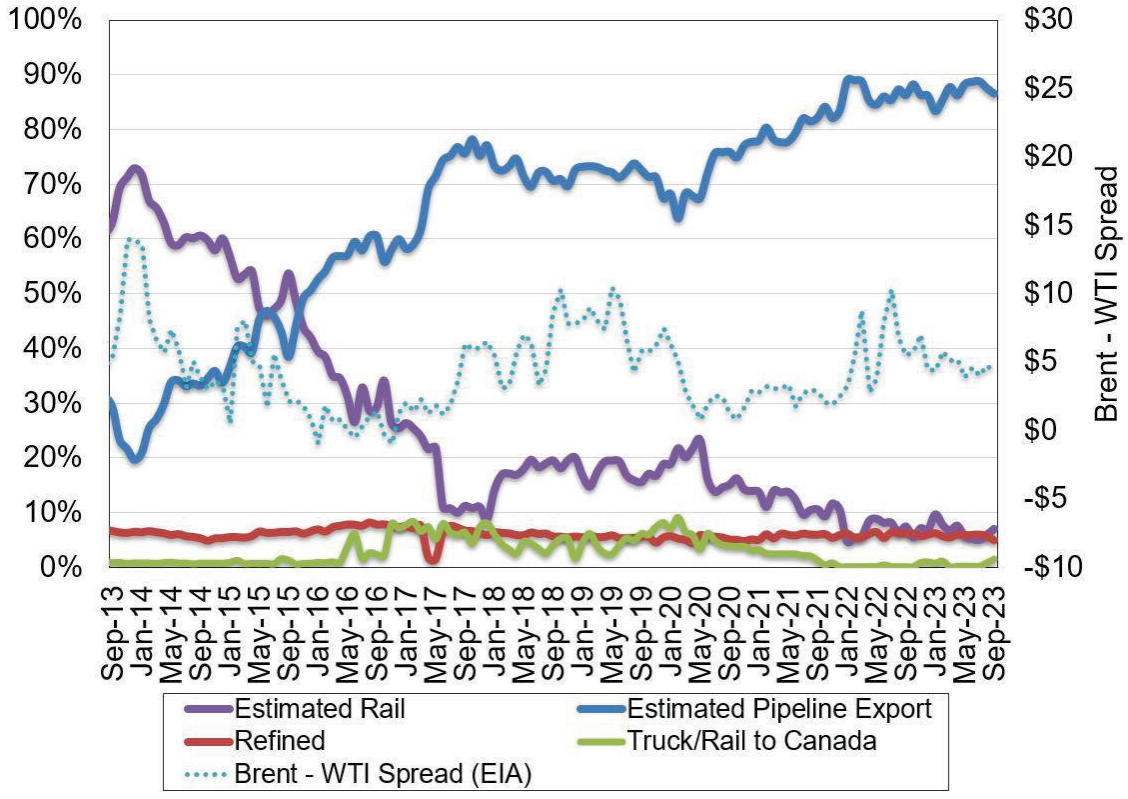
1% FLARED FROM WELL WITH ZERO SALES

SEP 2023 NON-CONF DATA

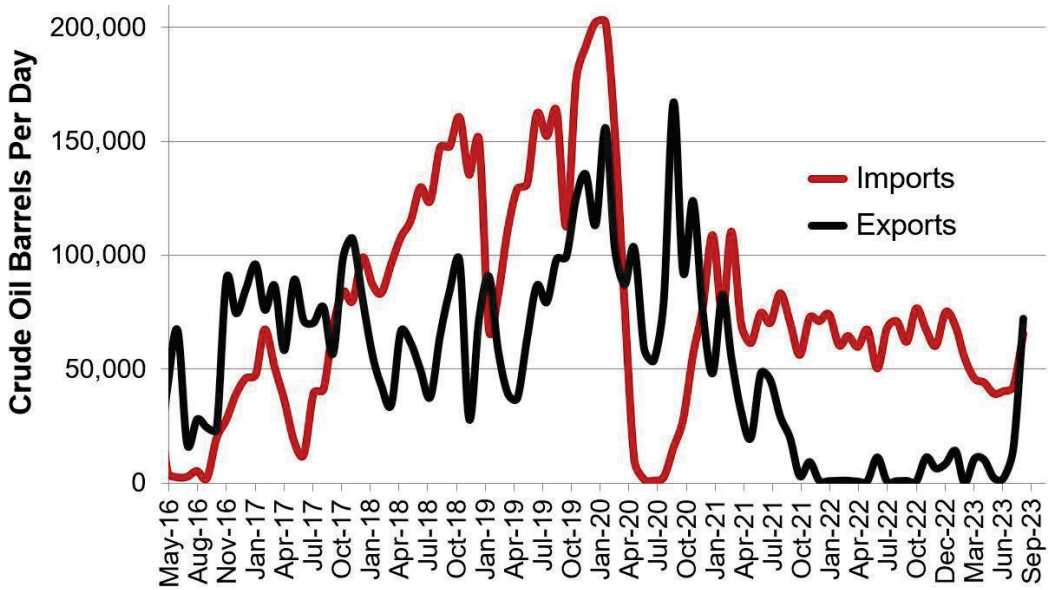
Estimated North Dakota Rail Export Volumes



Estimated Williston Basin Oil Transportation

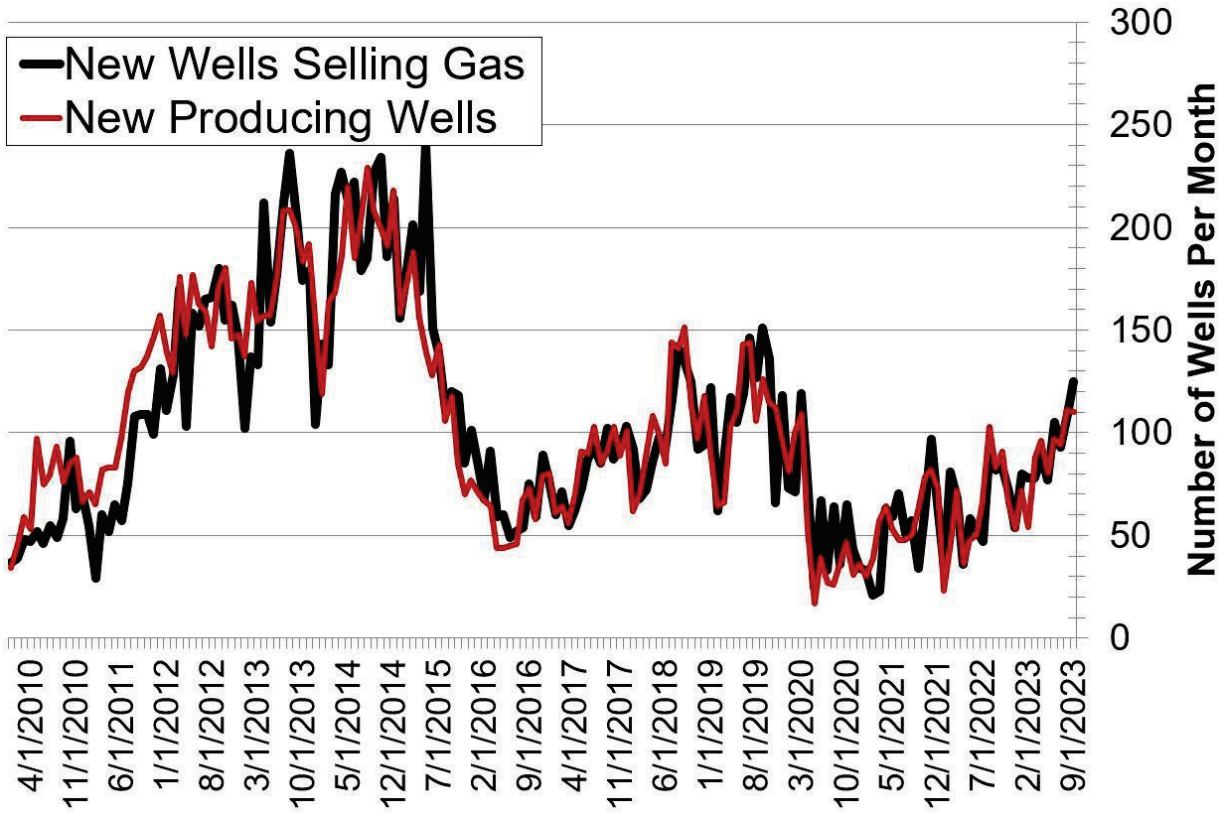


Williston Basin Truck/Rail Imports and Exports with Canada



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

2022

MONTH	ND	EASTERN MT*	SD	TOTAL
January	1,091,931	51,895	2,709	1,146,535
February	1,095,503	51,175	2,742	1,149,420
March	1,129,936	54,768	2,709	1,187,413
April	908,697	54,121	2,338	965,156
May	1,062,228	53,276	2,648	1,118,152
June	1,099,366	63,256	2,764	1,165,386
July	1,073,624	60,614	2,774	1,137,012
August	1,075,801	60,587	2,756	1,139,144
September	1,126,138	58,103	2,679	1,186,920
October	1,122,122	54,284	2,621	1,179,027
November	1,098,415	57,734	2,682	1,158,831
December	957,864	56,738	2,199	1,016,801

2023

MONTH	ND	EASTERN MT*	SD	TOTAL
January	1,062,880	62,094	2,610	1,127,584
February	1,159,036	63,536	2,475	1,225,047
March	1,124,897	64,580	2,652	1,192,129
April	1,135,840	61,897	2,557	1,200,294
May	1,135,761	60,760	2,560	1,199,081
June	1,168,269	58,889	2,274	1,229,432
July	1,181,513		2,310	
August	1,223,617			
September	1,278,190			
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.reuters.com/business/energy/chevron-shipping-fuels-venezuelas-pdvsa-expansion-oil-swap-2023-11-16/?taid=6556aab24fbedc00019384f2&utm_campaign=trueAnthem:+Trending+Content&utm_medium=trueAnthem&utm_source=twitter

Chevron shipping fuels to Venezuela's PDVSA in expansion of oil swap

By Marianna Parraga, Laura Sanicola and Arathy Somasekhar
November 16, 20233:38 PM MSTUpdated 3 hours ago

HOUSTON, Nov 16 (Reuters) - U.S. oil firm Chevron Corp (CVX.N) has begun supplying fuel to Venezuela's state-run oil company PDVSA under Washington's approval of expanded deals with the South American country, three people familiar with the matter said on Thursday.

Chevron and PDVSA previously had stuck to a 2022 agreement to expand some operations that included a swap of Venezuelan crude for Chevron-provided diluents to their joint ventures and for repayment of debts owned by Venezuela. Last month, Washington broadly eased sanctions on the country's oil sector, paving the way for wider sets of exchanges.

Under terms that imply an expansion of the previous swap deal, Chevron has begun supplying PDVSA with fuel including naphtha and gasoline blend stock, one of the people said.

The first vessel under the arrangement arrived in Venezuela's Jose port this week carrying 450,000 barrels of heavy naphtha for PDVSA, according to tanker tracking data and a document see by Reuters.

A second tanker was being chartered this week to transport some 240,000 barrels of gasoline blend stock for November delivery, two of the sources added.

PDVSA did not reply to a request for comment. Chevron declined to comment on commercial matters and said the firm is committed to conducting business in compliance with all laws and regulations where it operates.

Earlier this month, Chevron began inspecting PDVSA's facilities at the El Palito port, close to the country's capital and a traditional hub for motor fuel imports, in preparation for the deliveries, according to one of the sources.

It was not immediately clear if the fuel shipments will be compensated with Venezuelan crude or under a different payment mechanism. The October license clears the way to make and receive payments from Venezuela, and to procure goods and services for oil and gas projects.

Reporting by Marianna Parraga and Arathy Somasekhar in Houston, and Laura Sanicola in Washington. Additional repotring by Sabrina Valle; Editing by David Gregorio

https://www.argusmedia.com/en/news/2507954-venezuela-could-displace-canadian-crude-reexports

Venezuela could displace Canadian crude re-exports

Published date: 09 November 2023

Two key buyers of Canadian heavy crude exports from the US Gulf coast are poised to increase receipts of Venezuelan crude following a temporary lifting of sanctions, which could displace Canadian supplies.

PetroChina's 400,000 b/d Jieyang refinery in south China's Guangdong province accounted for 23.1pc of Cold Lake, Access Western Blend, and Christina Dilbit exports from the US Gulf coast in January-August this year, according to analytics firm Vortexa. Repsol's 220,000 b/d Cartagena refinery in Spain accounted for 17.5pc.

Both refineries have been in discussions to increase loadings of similar-quality heavy Venezuelan crude after the US temporarily lifted some sanctions targeting the oil and gas industry for six months ending on 18 April.

PetroChina is likely to buy around 260,000-300,000 b/d of crude from Venezuela's state-owned PdV, according to traders, which could displace nearly all of the 319,000 b/d of Canadian heavy crude purchases that the Jieyang refinery averaged in the first eight months of this year.

In the past, Petrochina preferred to run Venezuelan Merey at Jieyang, but turned to Canadian heavies following US sanctions on Venezuela starting in 2019.

In Spain, Repsol is also working with PdV to increase oil and gas output at its joint ventures in Venezuela.

The easing of US sanctions is expected to "increase the availability of heavy crude for our refineries," Repsol's chief executive Josu Jon Imaz said on 26 October, though it remains unclear how much such supplies could increase. The Cartagena refinery averaged 241,000 b/d in heavy Canadian crude imports between January and August.

Repsol resumed heavy Venezuelan imports last year under an oil-for-debt deal between Respol and state-owned PdV. This year, most of Repsol's 22,000 b/d of Venezuelan imports to Spain have gone to the Cartagena refinery.

Cold Lake Houston is averaging an $8.30/bl discount to the Nymex benchmark for December trade since the 26 October start of trading, compared with an average discount of about $5.80/bl in November trade.

Sanctions relief could be short lived

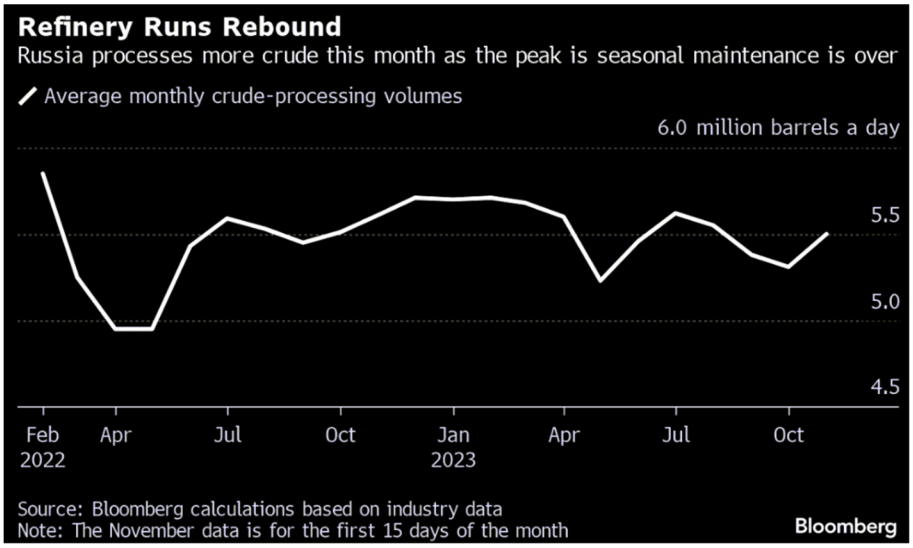
Sanctions were lifted for a period of six months starting on 18 October, but they could be reimposed if Venezuela does not move toward commitments to free elections and release more political prisoners by the end of the month, a US official said earlier this week.

"We have taken a pretty big step to signal our commitment, but after 30 November, if those expectations are not fulfilled, we will have to take steps to dismantle that sanctions' relief," White House senior western hemisphere adviser Juan Gonzales said on 7 November. This could include completely reinstating sanctions or other options under discussion.

By Scott Phillips

Canadian heavy crude importers Jan-Aug (via US Gulf)		
Refinery	Volume (b/d)	% of total
PetroChina Jieyang	318,526	23.1
Sinopec Zhenhai	244,851	17.8
Repsol Cartagena	241,377	17.5
Jamnagar Reliance	181,441	13.2
Sinopec Dongxing	91,372	6.6
Vortexa		

Russia's Crude-Processing at 12-Week High With Most Works Over
2023-11-17 15:17:35.755 GMT
By Bloomberg News
(Bloomberg) -- Russia's oil-processing rates in the week to Nov. 15 have jumped to the highest in 12 weeks as the nation's refiners have returned most of their capacity online after seasonal maintenance.
The country processed nearly 5.55 million barrels a day between Nov. 9-15, according to a person with knowledge of the matter. These are the highest daily processing rates since late August, and the volumes are almost 84,000 barrels a day more than the average for the first days of November, Bloomberg calculations based on historic data show.



Completion of seasonal maintenance this month may bring Russia's oil-processing rates in December back to 5.8 million barrels per day, the level last seen in early April, according to estimates of market intelligence firm Kpler.
Analysts and traders are following Russia's refinery runs closely as the data — together with seaborne crude exports — helps assess the nation's oil production after official information on output has been classified.
Russia's seaborne crude shipments in the week to Nov. 12 slightly dropped compared to the week before, standing at about 3.2 million barrels a day, according to tanker-tracking data monitored by Bloomberg.
Russia and its allies in the Organization of Petroleum Exporting Countries are set to meet in Vienna, Austria, next weekend to discuss their production policies for the next year.

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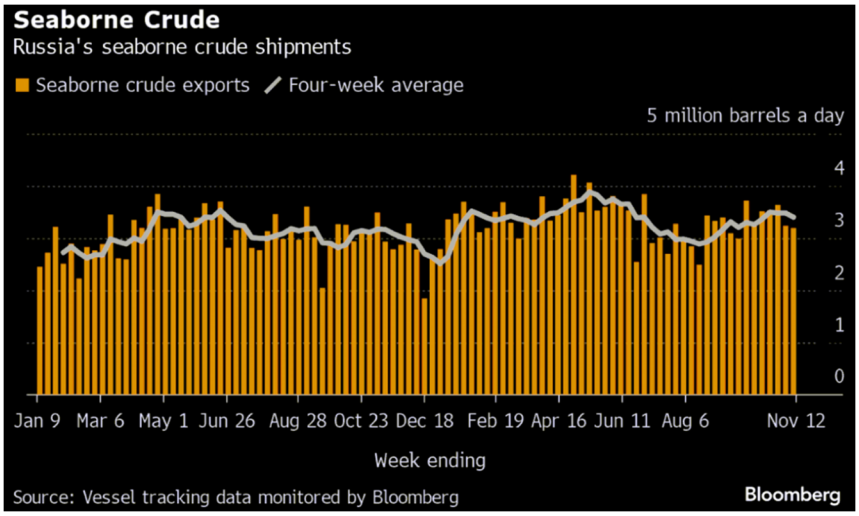
To view this story in Bloomberg click here: https://blinks.bloomberg.com/news/stories/S49T0XT0AFB4

Russia’s Seaborne Crude Flows Edge Lower Before OPEC+ Meeting
2023-11-14 12:10:29.57 GMT

By Julian Lee
(Bloomberg) -- Russia’s seaborne crude shipments eased slightly ahead of a meeting of OPEC+ oil minsters later this month, bringing flows back below the level pledged by Moscow. The move comes after exports surged in October.
About 3.2 million barrels a day of crude was shipped from Russian ports in the week to Nov. 12, tanker-tracking data monitored by Bloomberg show. That was down by 40,000 barrels a day from the period to Nov. 5, but still 700,000 barrels a day above the levels seen in August.
Moscow said in early August that it would prolong export restrictions at a reduced rate of 300,000 barrels a day below their May-June average level until the end of the year, a policy confirmed earlier this month. That would imply seaborne shipments of 3.28 million barrels a day if the burden falls entirely on crude. But the reduction is spread across both crude and refined products, Deputy Prime Minister Alexander Novak told Interfax last month after the government imposed a fuel export ban.

The OPEC+ group of oil producers, jointly led by Russia and Saudi Arabia, meet in Vienna on Nov. 26 when they will consider how to respond to a weakening oil market outlook. Analysts from the smaller OPEC group argue that negative sentiment is “overblown.”



The less volatile four-week average flow fell to 3.4 million barrels a day, down by about 80,000 barrels a day from the period to Nov. 5. That was the lowest in four weeks, but still more than 500,000 barrels a day above shipments in the period to Aug. 20, when Moscow’s crude export cuts were at their deepest.
Russia’s elevated crude exports, combined with rising demand from domestic refineries, has drained oil inventories to

their lowest since February. The country's refinery operations are rebounding as the industry is completing seasonal maintenance, with more primary and secondary capacity scheduled to return this week.

Meanwhile, the US Treasury Department has sent notices to ship management companies about more than 100 vessels it suspects may have violated the price cap on Russian oil imposed after the invasion of Ukraine.

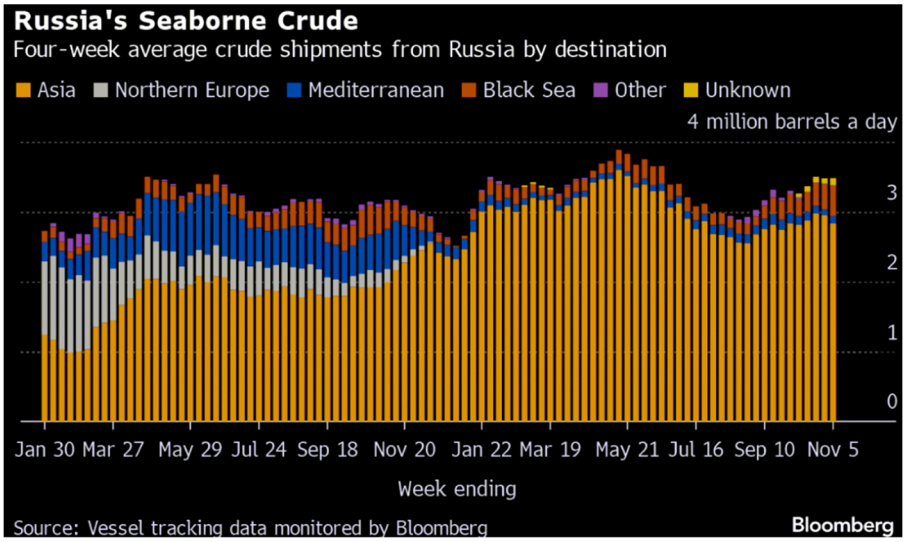
With all of last week's shipments attracting the higher export duty rate for November, the Kremlin's weekly revenues from oil export duties rose, despite the small drop in flows. Meanwhile, the four-week average edged lower, falling for the first time in 16 weeks.

Moscow's overall oil and gas revenue soared in October to the highest since April 2022 due to high oil prices and a pause in government subsidies to refiners. Levies on crude and petroleum products — which accounted for almost 91% of total hydrocarbon revenues last month — more than doubled. Oil revenue includes mineral extraction tax on gas condensate and export duty on petroleum products, as well as subsidies payments for refiners for domestic supplies of fuel, tax reimbursements and payments for refinery modernization.

From January, Russia's oil producers are set to pay a higher output tax to fund increased downstream subsidies, which were reinstated in October after being halved the previous month.

Flows by Destination

Russia's seaborne crude flows in the four weeks to Nov. 12, slipped to 3.4 million barrels a day. That was down from 3.48 million barrels a day in the period to Nov. 5. Shipments remain about 180,000 barrels a day below the average seen during the surge in volumes between April and June.



All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through Novorossiysk and the Baltic

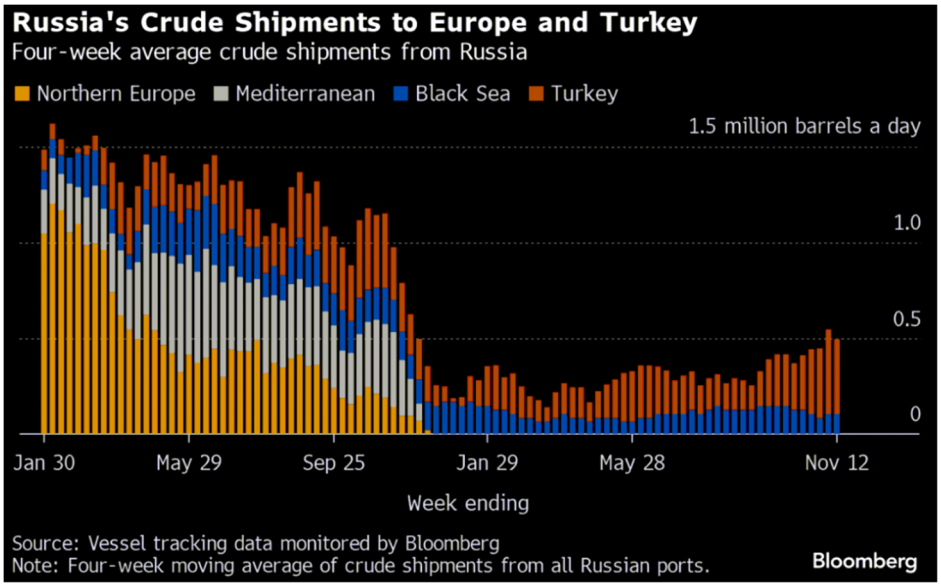
port of Ust-Luga and are not subject to European Union sanctions or a price cap.
The Kazakh barrels are blended with crude of Russian origin to create a uniform export grade. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

*** Asia**

Observed shipments to Russia's Asian customers, including those showing no final destination, edged lower to 2.91 million barrels a day in the four weeks to Nov. 12, down from 2.93 million barrels a day in the period to Nov. 5. That's well below a peak of about 3.6 million barrels a day seen in May.
About 1.21 million barrels a day of crude was shipped to China in the four weeks to Nov. 12, but that figure may rise once the destinations become apparent for more than 21 million barrels of crude on tankers that have yet to signal their final port of call. Shipments to China are similar to the volume on ships heading to India, but China's seaborne imports are supplemented by about 800,000 barrels a day of crude delivered directly from Russia by pipeline.
Flows on ships signaling destinations in India are falling, averaging 970,000 barrels a day in the four weeks to Nov. 12. However, the equivalent of about 630,000 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.
The "Other Unknown" volumes, running at about 100,000 barrels a day in the four weeks to Nov. 12, 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 collapsed since Moscow's troops invaded Ukraine in February 2022. A market that consumed about 1.5 million barrels a day of short-haul seaborne crude, coming from export terminals in the Baltic, Black Sea and Arctic has been lost almost completely, to be replaced by long-haul destinations in Asia that are much more costly and time-consuming to serve. These figures do not include shipments to Turkey.



No Russian crude was shipped to northern European countries, or those in the Mediterranean in the four weeks to Nov. 12.

Flows to Bulgaria, now Russia's only European market for crude, were unchanged at about 104,000 barrels a day in the most recent four-week period.

Exports to Turkey edged lower to about 390,000 barrels a

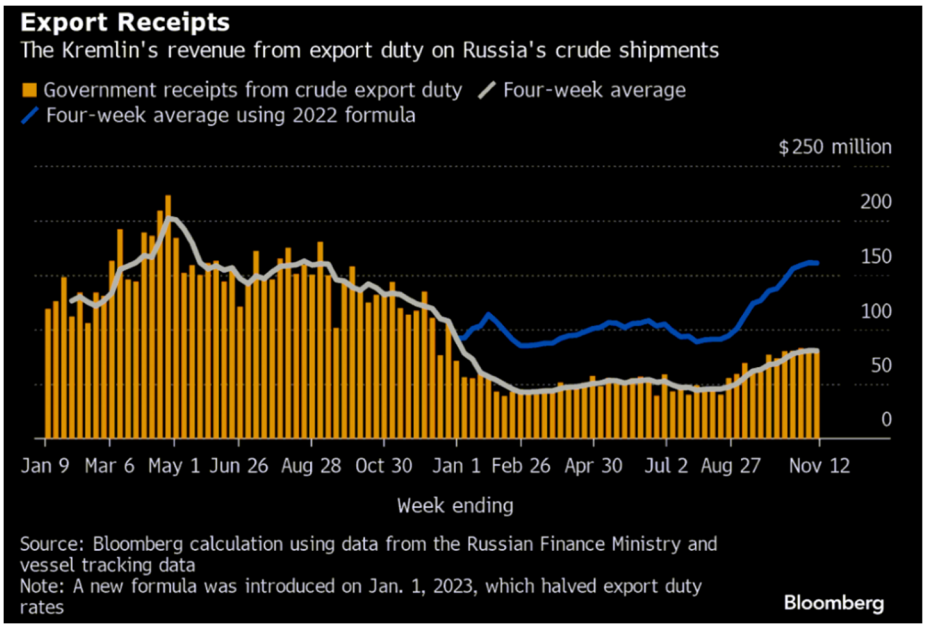
day in the four weeks to Nov. 12, but remain more than twice as high as they were in July and August. The recent increase comes after Lukoil resumed deliveries to the Azerbaijani-owned Star refinery at Aliaga. Supplies to the plant are expected at about 100,000 barrels a day, equivalent to half of the refinery's capacity.

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 Revenue

Inflows to the Kremlin's war chest from its crude-export duty increased to $79.6 million in the seven days to Nov. 12, while four-week average income edged lower to $80.4 million. The higher November duty rate helped to boost the Kremlin's oil revenue in the week to Nov. 12, despite the small drop in exports.

The export duty rate for December is likely to be lower than this month's, with oil's retreat sending the value of Russia's flagship Urals crude grade back into the $60 range.



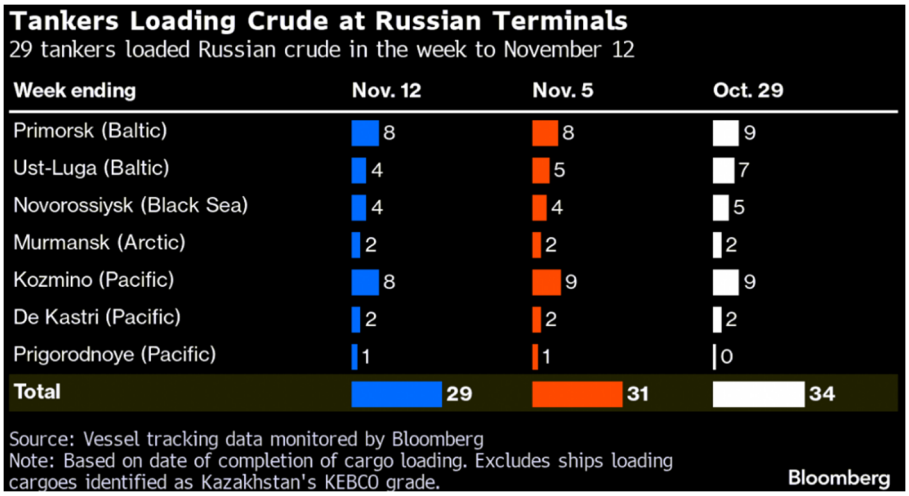
The duty rate for November has been set at $3.57 a barrel, based on an average Urals price of $83.35 during the calculation period between Sept. 15 and Oct. 14. That was about $7.70 a barrel below Brent over the same period. November's duty rate sets another new high for the year.

Origin-to-Location Flows

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

A total of 29 tankers loaded 22.4 million barrels of Russian crude in the week to Nov. 12, vessel-tracking data and port agent reports show. That's down by about 300,000 barrels from the previous week.

There was one fewer shipment from Ust-Luga and from Kozmino compared with the previous week, while the number of vessels leaving all of Russia's other oil terminals was unchanged. Destinations are based on where vessels signal they are heading at the time of writing, and some will almost certainly change as voyages progress. All figures exclude cargoes identified as Kazakhstan's KEBCO grade.



In addition, one cargo of KEBCO was loaded at Novorossiysk and one from Ust-Luga during the week.NOTES
Note: This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the export duty revenues earned from them by the Russian government. Weeks run from Monday to Sunday. The next update will be onTuesday, Nov. 21.
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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Julian Lee in London at jlee1627@bloomberg.net

To view this story in Bloomberg click here:
https://blinks.bloomberg.com/news/stories/S444HHDWX2PS

Oil Market Highlights

Crude Oil Price Movements

In October, the OPEC Reference Basket (ORB) fell by $2.82, or 3.0%, m-o-m, to an average of $91.78/b. The ICE Brent front-month contract fell by $3.89, or 4.2%, m-o-m, to $88.70/b, and the NYMEX WTI front-month contract fell by $3.96, or 4.4%, m-o-m, to average $85.47/b. The DME Oman front-month contract fell by $4.06, or 4.3%, m-o-m, to settle at $89.31/b. The front-month ICE Brent/NYMEX WTI spread widened in October by 7¢ to average $3.23/b. The market structure strengthened further as the front end of futures forward curves for ICE Brent, NYMEX WTI and DME Oman steepened on concerns over geopolitical tensions in the Middle East. Hedge funds and other money managers heavily cut bullish positions, fuelling price volatility and contributing to the drop in futures prices.

World Economy

The forecast for world economic growth remains unchanged at 2.8% for 2023 and 2.6% for 2024. US economic growth is revised up to 2.3% for 2023 and 0.9% for 2024. Eurozone economic growth is revised down for both 2023 and 2024 to stand at 0.2% and 0.5%, respectively. Japan's economic growth forecast for 2023 is revised up to 1.9%, while growth in 2024 remains at 1.0%. The forecast for China remains unchanged at 5.2% for 2023 and 4.8% for 2024. India's growth forecast remains unchanged at 6.2% for 2023 and 5.9% for 2024. Brazil's forecast also remains unchanged at 2.5% in 2023 and 1.2% in 2024. Russia's economic growth forecast is revised up to 1.9% for 2023 and 1.2% for 2024.

World Oil Demand

The world oil demand growth forecast for 2023 is revised up marginally from the previous month's assessment to 2.5 mb/d. Revisions to data for the OECD countries throughout the first three quarters largely offset each other. In the non-OECD, the upward revisions to China's oil demand in both 3Q23 and 4Q23 outpaced the downward revisions in the non-OECD region in 3Q23. In 2023, OECD oil demand is expected to rise by around 0.1 mb/d, while non-OECD oil demand is expected to increase by 2.4 mb/d. For 2024, world oil demand is expected to grow by a healthy 2.2 mb/d, unchanged from the previous month's assessment. The OECD is expected to expand by about 0.3 mb/d in 2024, with OECD Americas contributing the largest increase. The non-OECD is set to drive next year's growth, increasing by about 2.0 mb/d, with China, the Middle East, Other Asia and India contributing the most.

World Oil Supply

Non-OPEC liquids supply growth forecast is revised up to 1.8 mb/d in 2023. Main drivers of liquids supply growth for 2023 include the US, Brazil, Kazakhstan, Norway, Guyana, Mexico and China. For 2024, non-OPEC liquids production is expected to grow by 1.4 mb/d, broadly unchanged from the previous month's assessment. Main drivers for liquids supply growth next year are set to be the US, Canada, Guyana, Brazil, Norway and Kazakhstan. OPEC NGLs and non-conventional liquids are forecast to grow by around 50 tb/d in 2023 to average 5.4 mb/d and by another 65 tb/d to average 5.5 mb/d in 2024. OPEC-13 crude oil production in October increased by 80 tb/d m-o-m to average 27.90 mb/d, according to available secondary sources.

Product Markets and Refining Operations

In October, refinery margins remained strong but declined slightly, continuing the downward trend registered in the previous month. In the Atlantic Basin, the vast majority of the observed downturn is attributed to gasoline, as markets for the product weakened following the end of the summer season, amid reports of significant gasoline stock builds. In Singapore, the relatively weaker performance was also led by gasoline, although the weakness was more evenly distributed across the barrel, with naphtha seeing the smallest decline. Global refinery intake continued to decrease m-o-m in October, showing a 1.4 mb/d decline to an average of 80.1 mb/d. Y-o-y, however, intakes were 2.2 mb/d higher. In the coming months, refinery intakes are expected to start to recover as offline capacities begin to subside with the conclusion of a heavy autumn maintenance season.

Tanker Market

Dirty spot freight rates began to recover in October as refiners started preparing for winter demand following maintenance. Gains were strongest in the smaller class vessels. Suezmax spot freight rates surged to a five-month high during the month, with rates on the US Gulf Coast to Europe route increasing by 98%, m-o-m. Aframax spot freight rates also saw a significant increase, with rates around the Mediterranean up by around 74%, m-o-m. In contrast, VLCC spot freight rates saw a more moderate increase, with rates on the Middle East-to-East route up 26%, m-o-m, amid a return of long-haul demand from Asia. Meanwhile, clean rates saw mixed movement. East of Suez rates were broadly flat m-o-m, supported by an increase on the Middle East-to-East route, while West of Suez rates fell 19%, m-o-m, as margins weakened in the Atlantic basin amid high inventories of key products.

Crude and Refined Products Trade

Preliminary data shows US crude imports falling by around 10%, m-o-m, in October to stand at the lowest since December 2022. US crude exports increased to 4.6 mb/d, the highest since March 2023. China's crude imports fell back to 11.2 mb/d in September, after surging to the second-highest level on record the month before. China's product exports slipped 5% in September after reaching a six-month high, as product export quotas are constrained. India's crude imports fell further to an average of 4.3 mb/d in September, the lowest in a year, although are expected to recover with the start of 4Q23. India's product imports rose to a ten-month high ahead of the festive season, while exports fell from a five-month high the month before, on an expected return of domestic demand. Japan's crude imports rose further to an average of 2.6 mb/d in September. Product exports jumped 39%, m-o-m, to a seven-month high of 596 tb/d, with gains seen across all major products, except kerosene. Preliminary estimates show OECD Europe crude imports remaining relatively stable at the start of 3Q23, while product imports are expected to trend lower.

Commercial Stock Movements

Preliminary September 2023 data sees total OECD commercial oil stocks down by 15.6 mb, m-o-m. At 2,783 mb, they were 184 mb below the 2015–2019 average. Within the components, crude and products stocks fell by 9.3 mb and 6.3 mb, respectively, m-o-m. OECD commercial crude stocks stood at 1,336 mb in September, which is 99 mb lower than the 2015–2019 average. Total product stocks fell by 6.3 mb to stand at 1,447 mb in September, which is 84 mb below the 2015–2019 average. In terms of days of forward cover, OECD commercial stocks fell by 0.3 days, m-o-m, in September to stand at 60.6 days, which is 1.9 days below the 2015–2019 average.

Balance of Supply and Demand

Demand for OPEC crude in 2023 remained unchanged from the previous month's assessment to stand at 29.1 mb/d, which is 0.6 mb/d higher than in 2022. Demand for OPEC crude in 2024 is also remained unchanged from the previous month's assessment to stand at 29.9 mb/d, 0.8 mb/d higher than the estimated level in 2023.

Feature Article

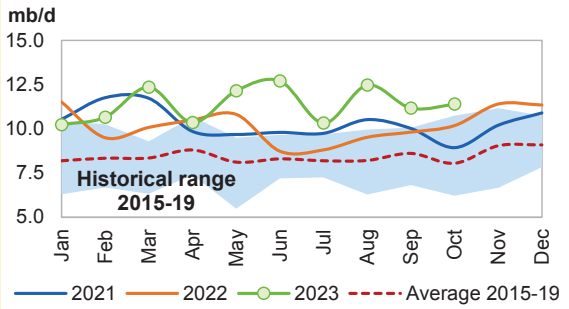
Global oil market fundamentals remain strong despite exaggerated negative sentiments

Recent data confirms robust major global growth trends and healthy oil market fundamentals. On the global economic growth front, and as the US economy continues the very strong growth it experienced in 3Q23, the IMF has recently upgraded Chinese economic growth projection for 2023 to 5.4%. However, potential downside risk to current robust global economic growth forecasts, although minor, may include sustained restrictive monetary policies to fight inflation, and geopolitical developments.

With this, and despite the overblown negative sentiment in the market regarding China's oil demand performance, and global oil market in general, the latest data shows Chinese crude imports increasing to 11.4 mb/d in October, and remaining on track to reach a new annual record high for this year, at around the same level.

In fact, the Chinese crude imports remained very healthy, at a record level that is well above the five-years average range, rising by around 240 tb/d, month-on-month, with year-on-year crude imports at 1.2 mb/d higher. Similarly, India's crude imports are also expected to pick up in 4Q23, reaching a record high this year (***Graph 1***).

Graph 1: Chinese crude oil imports

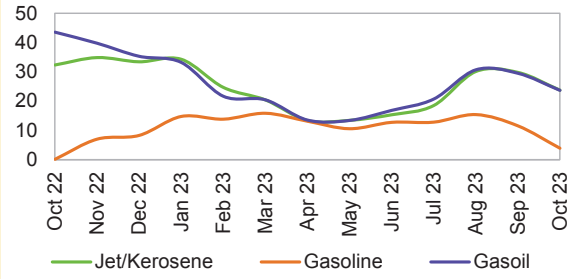


Sources: China OGP and Argus China Petroleum.

As the global oil demand continues to demonstrate strength and resilience, with better-than-expected growth in 4Q23, mainly in non-OECD countries, the Secretariat's latest forecast for global oil demand growth for 2023 is revised up to reach at 2.5 mb/d.

Evidently, Asian refining margins remain strong compared to historical levels. Jet/kerosene crack averaged $23.77/b against Dubai in Singapore. Expectations of an increase in international air travel activity during the holidays and possibly stronger export requirements to OECD Europe and Americas will most likely support jet/kerosene markets towards the year-end. The gasoil crack spread averaged $23.67/b against Dubai in Singapore in October (***Graph 2***). Even the gasoline crack spread averaged $3.90/b against Dubai in October, and improved to around $5/b at the beginning of November.

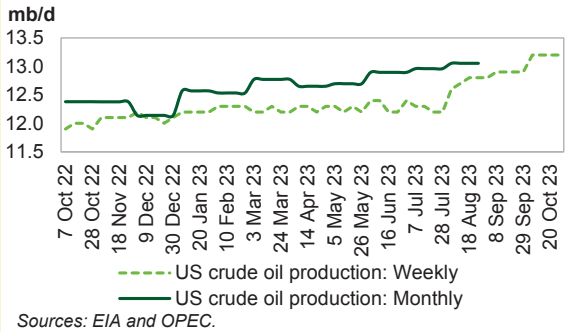
Graph 2: Singapore crack spreads vs. Dubai



Sources: Argus and OPEC.

The supply picture also remains strong with non-OPEC supply revised up slightly to reach 1.8 mb/d for 2023, the US being the main growth contributor. Clearly, the US liquids supply growth has been stronger than what is suggested by weekly data. In fact, the weekly data which has been underestimating US crude production since January, as this were followed by significant monthly data upward catch-up trend, especially since August. The more reliable monthly data indicates a very gradual increase in US crude production (***Graph 3***).

Graph 3: US crude oil production



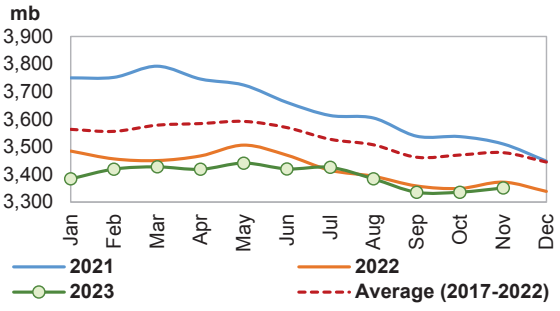
Sources: EIA and OPEC.

The robust physical crude market is further reflected in the strong crude differentials seen in almost all regions in October and continued in early November. At the same time, and based on the available secondary sources to date, the overall OPEC-11 crude production in October remained well-below the agreed level related to production adjustments under the Declaration of Cooperation (DoC). For example, Nigeria has seen some production increase, but remained well below its required production level. It is also important to add that the recent increase in OPEC crude exports reflects seasonal trends.

Shipments from OPEC producers in Middle East tend to decline in the summer, amid higher demand for cooling and then rise again in September and October, as these volumes return to the market. For example, Saudi crude exports increase is quite normal as local demand drops in line with expected seasonality trend. Among non-OPEC participants in the (DoC), and despite the increase in its seaborne crude exports, Russia's product exports have decreasing over the last few months.

With this supply/demand dynamics, global crude stocks have declined in 3Q23, reflecting high global crude runs, as well as the voluntary adjustments by DoC countries. Clearly, the recently overplayed observation of the increase in global inventories is simply due to the typical seasonal trends, particularly the heavy refinery maintenance. Overall, the global crude inventories remain below the 2017–2022 average (***Graph 4***).

Graph 4: Global crude inventories

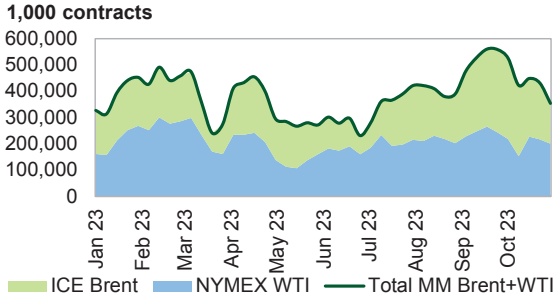


Source: Kpler.

Despite the above healthy and supportive market fundamentals, oil prices have trended lower in recent weeks, mainly driven by financial market speculators, as they have sharply reduced their net long positions over the month of October, compared to the late September, particularly in the NYMEX WTI futures and options contracts.

In fact, data shows that hedge funds and other money managers have heavily cut their bullish positions over the month of October, selling an equivalent of 161 mb and 43 mb of NYMEX-WTI and ICE-Brent futures and options contracts, respectively. In total, they have sold an equivalent of more than 200 mb of oil since late September, or about 37% of total bullish positions. This has fuelled market volatility and accelerated the price decline (***Graph 5***). The selloffs were also observed in speculative positions in petroleum products in October, specifically for ICE gasoil in Europe. ICE gasoil net long positions fell by an equivalent of around 28 mb since late September.

Graph 5: Speculative net long positions (Brent and WTI)



Sources: CFTC, CME, ICE and OPEC.

Indeed, the above strength in market fundamentals would not have been possible without the precautious, proactive, and pre-emptive approach adopted by OPEC and non-OPEC Participating Countries in the Declaration of Cooperation (DoC). Going forward, countries participating in DoC will continue their commitment to achieve and sustain a stable oil market and provide long-term guidance for the market, in line with their decisions most recently reaffirmed during the 35th OPEC and non-OPEC Ministerial Meeting, which extended the agreement until the end of 2024. Clearly, the voluntary production adjustments by many DoC countries as of November until end-2024, along with extended Saudi Arabian voluntary crude production adjustment of 1.0 mb/d until the end of 2023 and the Russian extended voluntary adjustment of 300 tb/d in crude oil exports over the same period, will contribute significantly to achieve and sustain global oil market stability.

World Oil Demand

For 2023, world oil demand growth is revised upward marginally from the previous assessment to 2.5 mb/d, to average 102.1 mb/d. Slight downward revisions to OECD data over the first three quarters of the year were more than offset by upward revisions to the non-OECD region. In the OECD region, oil demand in 2023 is expected to rise by 82 tb/d to average 45.8 mb/d. Demand in OECD Americas is expected to witness the largest regional rise, led by the US, on the back of growing jet fuel demand and increasing gasoline requirements. Light distillates are also projected to support demand growth this year. In the non-OECD region, total oil demand is expected to rise by close to 2.4 mb/d, to average 56.3 mb/d in 2023. A steady increase in transportation and industrial fuel demand, supported by a recovery in China's activity as well as other non-OECD regions, is projected to boost demand in the region in 2023.

In 2024, solid global economic growth, amid continued improvements in China, is expected to support oil consumption. World oil demand is expected to rise by more than 2.2 mb/d y-o-y, with total world oil demand projected to average 104.3 mb/d. In the OECD, oil demand is expected to increase by 0.26 mb/d to average 46.1 mb/d. US oil demand is forecast to approach pre-pandemic levels at 20.4 mb/d, mainly due to growth in jet fuel and further improvements in gasoline and light distillate demand. OECD Europe and the OECD Asia Pacific are expected to remain below pre-pandemic levels at 13.5 mb/d and 7.4 mb/d, respectively. This is due to expectations for slower economic activity in the two regions and ongoing weak industrial activity, particularly in OECD Europe. In the non-OECD, oil demand in 2024 is forecast to increase by almost 2.0 mb/d y-o-y to average 58.3 mb/d. China and the Middle East are expected to see the largest growth in the non-OECD, followed by Other Asia and India. In terms of products, transportation fuels, jet kerosene, gasoline and diesel are assumed to lead non-OECD oil demand growth in 2024.

Table 4 - 1: World oil demand in 2023*, mb/d

							Change 2023/22	
World oil demand	**2022**	**1Q23**	**2Q23**	**3Q23**	**4Q23**	**2023**	**Growth**	**%**
Americas	24.87	24.52	25.21	25.35	24.94	25.01	0.14	0.56
of which US	*20.16*	*19.92*	*20.50*	*20.47*	*20.05*	*20.24*	*0.08*	*0.37*
Europe	13.51	13.11	13.54	13.79	13.37	13.45	-0.05	-0.40
Asia Pacific	7.38	7.81	6.96	7.10	7.65	7.38	0.00	-0.02
Total OECD	**45.75**	**45.43**	**45.71**	**46.23**	**45.96**	**45.84**	**0.08**	**0.18**
China	14.95	15.73	16.06	16.27	16.29	16.09	1.14	7.61
India	5.14	5.40	5.40	5.17	5.50	5.37	0.23	4.48
Other Asia	9.06	9.34	9.48	9.03	9.18	9.26	0.19	2.13
Latin America	6.44	6.60	6.70	6.73	6.68	6.68	0.24	3.75
Middle East	8.30	8.63	8.32	8.86	8.73	8.64	0.34	4.09
Africa	4.40	4.59	4.24	4.30	4.88	4.50	0.10	2.32
Russia	3.70	3.83	3.59	3.74	4.01	3.79	0.09	2.40
Other Eurasia	1.15	1.24	1.21	1.02	1.23	1.17	0.02	2.03
Other Europe	0.77	0.79	0.77	0.75	0.83	0.79	0.02	2.29
Total Non-OECD	**53.90**	**56.15**	**55.76**	**55.88**	**57.32**	**56.28**	**2.37**	**4.40**
Total World	**99.66**	**101.58**	**101.47**	**102.11**	**103.28**	**102.11**	**2.46**	**2.47**
Previous Estimate	99.63	101.59	101.35	102.17	103.13	102.06	2.44	2.45
Revision	0.03	-0.01	0.13	-0.06	0.15	0.05	0.02	0.02

*Note: * 2023 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

Table 4 - 2: World oil demand in 2024*, mb/d

World oil demand	2023	1Q24	2Q24	3Q24	4Q24	2024	Change 2024/23 Growth	Change 2024/23 %
Americas	25.01	24.70	25.38	25.55	25.10	25.19	0.18	0.72
of which US	*20.24*	*20.06*	*20.64*	*20.62*	*20.19*	*20.38*	*0.14*	*0.70*
Europe	13.45	13.16	13.60	13.86	13.41	13.51	0.06	0.41
Asia Pacific	7.38	7.84	6.98	7.13	7.65	7.40	0.02	0.29
Total OECD	**45.84**	**45.70**	**45.96**	**46.54**	**46.16**	**46.09**	**0.26**	**0.56**
China	16.09	16.30	16.52	16.89	16.96	16.67	0.58	3.61
India	5.37	5.63	5.64	5.40	5.69	5.59	0.22	4.10
Other Asia	9.26	9.60	9.73	9.39	9.54	9.57	0.31	3.35
Latin America	6.68	6.79	6.88	6.95	6.84	6.87	0.19	2.84
Middle East	8.64	8.91	8.76	9.41	8.98	9.02	0.38	4.40
Africa	4.50	4.70	4.42	4.48	5.01	4.65	0.15	3.33
Russia	3.79	3.89	3.70	3.89	4.08	3.89	0.10	2.65
Other Eurasia	1.17	1.27	1.24	1.08	1.28	1.22	0.04	3.77
Other Europe	0.79	0.81	0.78	0.77	0.84	0.80	0.01	1.75
Total Non-OECD	**56.28**	**57.90**	**57.68**	**58.25**	**59.22**	**58.27**	**1.99**	**3.53**
Total World	**102.11**	**103.60**	**103.64**	**104.79**	**105.38**	**104.36**	**2.25**	**2.20**
Previous Estimate	102.06	103.62	103.51	104.85	105.23	104.31	2.25	2.20
Revision	0.05	-0.01	0.13	-0.06	0.15	0.05	0.00	0.00

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

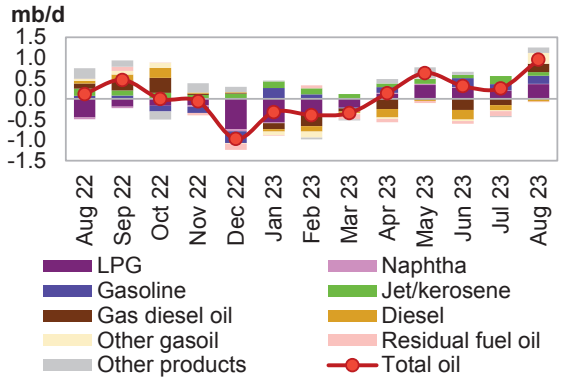
OECD

OECD Americas

Update on the latest developments

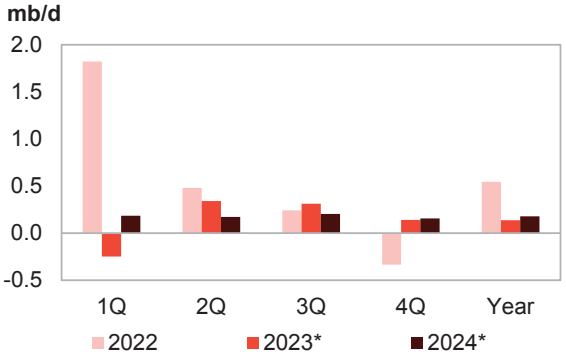
Oil demand in OECD Americas in August surged by around 1 mb/d, y-o-y. The increase in demand is almost entirely from the US and Canada.

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: * 2023 and 2024 = Forecast.*
Source: OPEC.

Oil demand in the **US** soared by 616 tb/d, y-o-y, in August, up from 198 tb/d, y-o-y, growth seen in the previous month. This increase was supported mainly by transportation fuels combined with petrochemical feedstock.

Core inflation in the US slowed down to 4.3% y-o-y in August, after 4.7% in July. The services PMI continued in expansionary territory for the 14th month to stand at 54.5 points in August, slightly higher than the 52.7 points recorded in July. However, the manufacturing PMI stood at 47.6 points in August, slightly above the level of 46.4 in July, but remaining below the growth-indicating level of 50 points for the eleventh-consecutive month.

Data from the Federal Highway Administration shows that miles travelled on all roads increased by 2.4% (+6.8 billion vehicle miles) for August 2023, as compared with August 2022. In terms of air travel, according to a report from the International Air Travel Association (IATA), American airlines outperformed pre-pandemic

levels for the fifth consecutive month, achieving 0.6% growth over August 2019. Regarding airline capacity, available seat-kilometres (ASKs) climbed by 9.6% y-o-y, while revenue passenger-kilometres (RPKs) increased by 11.2% y-o-y.

Diesel led August oil demand growth by 194 tb/d, y-o-y, growth, up from 74 tb/d, y-o-y, decline seen in the previous month. Supported by steady summer driving activity, gasoline demand grew by 184 tb/d, y-o-y. Buoyed by healthy petrochemical feedstock requirement, LPG saw 188 tb/d, y-o-y, growth, up from 38 tb/d, y-o-y, growth seen in the previous month. On the back of sustained air travel activity, jet/kerosene saw 58 tb/d, y-o-y, growth. Finally, naphtha saw slight 14 tb/d, y-o-y, growth, albeit up from a decline seen previous month.

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

By product	Aug 22	Aug 23	Change Growth	Aug 23/Aug 22 %
LPG	3.00	3.18	0.19	6.3
Naphtha	0.12	0.13	0.01	11.8
Gasoline	9.12	9.30	0.18	2.0
Jet/kerosene	1.65	1.71	0.06	3.5
Diesel	3.94	4.13	0.19	4.9
Fuel oil	0.38	0.33	-0.05	-13.3
Other products	2.36	2.38	0.03	1.2
Total	**20.56**	**21.17**	**0.62**	**3.0**

Note: Totals may not add up due to independent rounding. Sources: EIA and OPEC.

Near-term expectations

In the near term, US GDP is projected to remain healthy and the economy is projected to experience ongoing support from private household consumption. The forward-looking indicator, services PMI has been on a positive trajectory for a long period. These factors suggest that oil demand is expected to remain relatively healthy. In 4Q23, oil demand is expected to grow by 51 tb/d y-o-y. The beginning of winter will aid demand for heating fuels. In addition, continued steady growth in air travel demand will support jet/kerosene demand.

In 1Q24, US GDP growth is forecast to continue and expected to support oil demand. Specifically, further improvements in air travel are expected to support jet/kerosene demand. Heating fuels are also expected to see an uptick due to seasonal winter demand. However, industrial output has been on a prolonged downward trend, and road transportation is expected to soften during the winter season, thus dampening diesel and gasoline demand. Nevertheless, oil demand is projected to increase by about 140 tb/d, y-o-y, mostly supported by demand for jet/kerosene and LPG.

OECD Europe

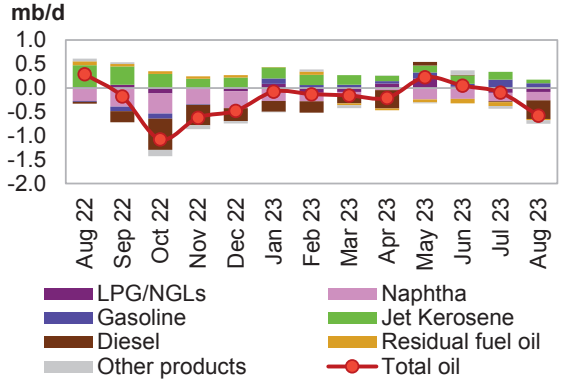
Update on the latest developments

Oil demand in OECD Europe in August declined further by 571 tb/d, y-o-y, compared to a 97 tb/d, y-o-y, decline in July. Oil product demand in OECD Europe has remained subdued for over a year, largely due to weaknesses in the European manufacturing and petrochemical sectors. Germany and other countries in the region, such as Italy, Spain, and the UK, have all experienced similar weaknesses in their manufacturing sector in recent months. In addition, persistently high core inflation compounded the problem. Eurozone annual inflation stood at 5.2%, y-o-y, in August, far above the inflation target of 2% set by the ECB.

The Eurozone's services and manufacturing PMIs were in contractionary territory in August. The services PMI stood at 47.9 in August, while the manufacturing PMI was at 43.5. An IATA Air Passenger Market Analysis reported that international RPKs performed by European carriers were 9.8% lower in August compared to pre-COVID levels, while the load factor remained 2.3 percentage points (pp) below pre-pandemic levels.

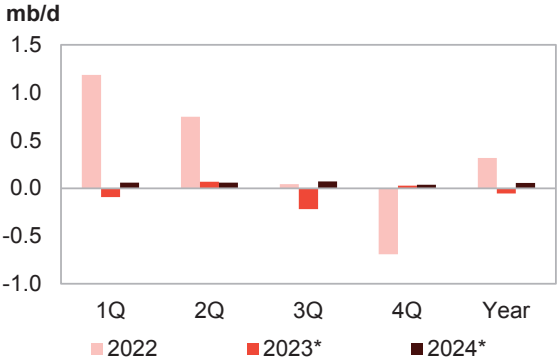
Subdued by weak manufacturing activity in the region, diesel demand recorded the largest contraction among the product categories, down by 388 tb/d, y-o-y, compared with a decline of 18 tb/d, y-o-y, in July. European ethylene and derivatives have also been under pressure due to low margins weighing on demand for petrochemical feedstock. Accordingly, demand for naphtha and LPG declined. Naphtha softened by 179 tb/d, y-o-y, and LPG declined by 83 tb/d, y-o-y. Residual fuel oil saw a y-o-y decline of 22 tb/d.

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: * 2023 and 2024 = Forecast.*
Source: OPEC.

On the positive side, healthy driving activity and continued improvements in airline travel supported transportation fuels demand. Gasoline saw growth of 101 tb/d, y-o-y, slightly below the 177 tb/d, y-o-y growth in the previous month. Jet/kerosene grew by 71 tb/d, y-o-y, down from the increase of 160 tb/d, y-o-y, recorded in July.

Near-term expectations

In the near term, economic activity in the region is projected to continue its negative trend, with weak manufacturing and petrochemical activity anticipated to continue into 4Q23. The PMI for services, the largest sector in the Eurozone, remained below the growth-indicating level of 50 at 47.8 in October. The manufacturing PMI also remained deep in contractionary territory, standing at 43.1 in October. Nevertheless, oil demand is anticipated to see a very slight uptick of 26 tb/d in 4Q23, compared to the 218 tb/d y-o-y decline recorded in 3Q23. Demand will mainly come from jet fuel, fuel oil and gasoline, while diesel and petrochemical feedstock are expected to remain weak.

Looking ahead to 2024, the region's economy is expected to show a gradual recovery. Activity in the manufacturing sector is expected to see some recovery. Furthermore, El Niño is expected to lead to a colder second half of winter in Northern Europe, supporting demand for heating oil in latter months. Accordingly, oil demand is projected to see 57 tb/d, y-o-y, growth in 1Q24, mainly supported by regional jet/kerosene and gasoline consumption on the back of air and road travel and heating oil demand. However, ongoing weak manufacturing and petrochemical activity are anticipated to weigh on industrial fuels and petrochemical feedstock. For the year, the region is expected to see 55 tb/d, y-o-y, growth in 2024.

OECD Asia Pacific

Update on the latest developments

Oil demand in the OECD Asia Pacific in August fell by 284 tb/d, y-o-y, compared with being flat y-o-y in July. Ongoing soft naphtha demand coupled with a decline in diesel more than offset the moderate gains in LPG and jet/kerosene demand. Within the regions, declines were recorded in Japan and South Korea.

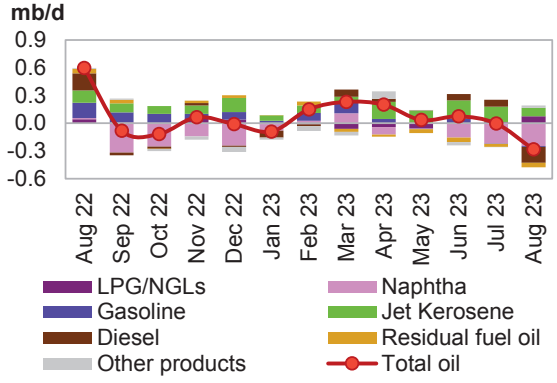
The Japanese industrial sector continued weakening in August, with industrial output declining further by 3.4%, y-o-y, after a decline of 2.5%, y-o-y, in July. Inflation remains historically high, though relatively unchanged at 3.2%, y-o-y, in August compared to the previous month. The manufacturing PMI also fell to 49.6 points in August. But the services PMI remains in expansionary territory at 54.3 points in August.

The Australian PMI entered contractionary territory with 49 points in August. But the services PMI was at 54.3 points. According to the latest data from the Australian Bureau of Statistics (ABS), the monthly Consumer Price Index (CPI) indicator rose 5.2%, y-o-y, in August, from 4.9%, y-o-y, in July.

South Korean manufacturing PMI stood at 48.9 points in August, remaining in contractionary territory for fourteen consecutive months. The annual inflation rate in South Korea climbed to 3.4%, y-o-y, in August from July's two-year low of 2.3%, surpassing market forecasts of 2.7%.

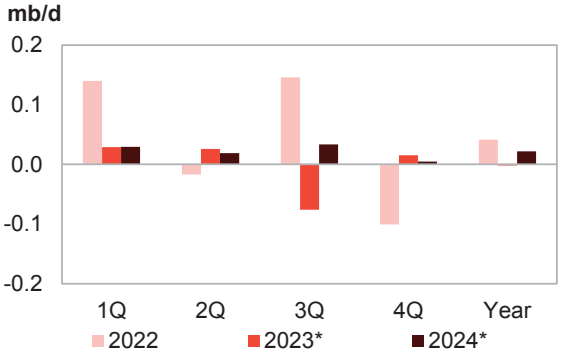
According to a report by the IATA, the international RPKs in the Asia Pacific region surged by 98.5%, y-o-y, in August, almost doubling when compared to the previous year, but still 24.5% below 2019 numbers.

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: * 2023 and 2024 = Forecast.*
Source: OPEC.

Weakening petrochemical sector requirements in the region pressured demand for naphtha, which declined further by 247 tb/d, y-o-y, from a decline of 222 tb/d, y-o-y, in July. Similarly, weak manufacturing activity also weighed on diesel, which declined by 172 tb/d, y-o-y, from growth of 75 tb/d, y-o-y, seen last month. Residual fuel declined by 49 tb/d, y-o-y, while gasoline demand remained flat, y-o-y. On the back of strengthening air traffic activity, jet/kerosene saw growth of 90 tb/d, y-o-y.

Near-term expectations

Looking ahead to 4Q23, the region's economy is expected to grow modestly, albeit with variations among the region's countries. The services PMI in Japan, the largest economy in the region, has been in expansionary territory for over a year. In August and September, Japan's services PMI stood at 54.3 and 53.8 points, respectively. In addition, steady air traffic recovery amid healthy driving activity and petrochemical industry operations are anticipated to support oil demand to grow by a slight 15 tb/d, y-o-y, in 4Q23, up from an annual decline of 76 tb/d, y-o-y, seen in 3Q23. Notable developments in the petrochemical sector of the region include South Korea's Hanwha Total Energies' plans to keep the operating rates at its steam crackers in Daesan at around 90%- 95% of capacity in November, steady from October and September. The company operates two steam crackers in Daesan. The No. 1 propane-fed steam cracker has an ethylene production capacity of 450,000 mt/year and the two naphtha-fed steam crackers that can produce 1.17 million mt/year of ethylene.

In 1Q24, sustained regional economic activity is anticipated to support the services sector. In addition, healthy air travel dynamics and recovering petrochemical sector requirements in the region are projected to support 1Q24 y-o-y oil demand to grow by 30 tb/d. Overall, in 2024, the region is anticipated to see y-o-y growth of 22 tb/d.

Non-OECD

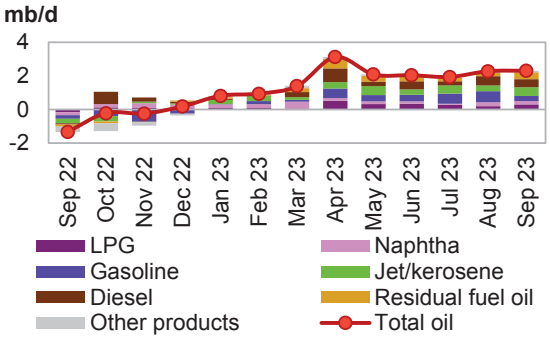
China

Update on the latest developments

Oil demand in China continued to surge in September by more than 2.3 mb/d, y-o-y, up from nearly 2.3 mb/d, y-o-y growth seen in August. However, it should be noted that this growth comes from a very low baseline, given that the country was under a strict lockdown during these months last year, which showed considerable yearly declines. Demand in September 2023, however, was supported by healthy economic activity, combined with steady petrochemical feedstock requirements.

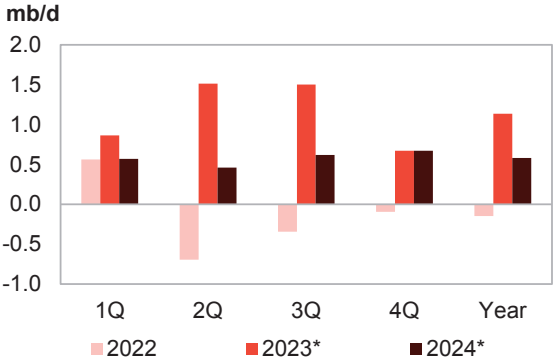
Forward-looking indicators remained positive, with China's services PMI standing at 50.2 points and the manufacturing PMI at 50.6 points in September. Road mobility in China continues to increase. According to China's National Bureau of Statistics/Haver Analytics, passenger turnover in terms of 100 million person-kilometres, recorded 83.49 % y-o-y growth in September. Similarly, air travel activity continued to remain strong, as a report from IATA's Air Passenger Monthly Analysis indicated that China has seen substantial growth in domestic RPKs over recent months. Air traffic has almost doubled compared to last year. With 93.6% annual growth in August, domestic air travel in the country stood 20.8% above pre-pandemic numbers.

Graph 4 - 7: China's oil demand by main petroleum 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.

Graph 4 - 8: China's oil demand, y-o-y change



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

September oil product demand was driven by jet fuel, supported by other transportation fuels requirements, and petrochemical feedstock demand. On the back of steady air travel recovery, jet fuel led oil product demand by 519 tb/d, y-o-y, growth, up from 339 tb/d, y-o-y, growth witnessed in previous month. Diesel requirements saw 478 tb/d y-o-y growth, slightly below 554 tb/d, y-o-y growth recorded in August. Healthy petrochemical feedstock requirements supported LPG and naphtha demand. LPG posted 307 tb/d, y-o-y, growth, up from 206 tb/d, y-o-y growth seen a month earlier. Naphtha increased by 188 tb/d y-o-y, slightly below the 221 tb/d, y-o-y, growth seen in August. Finally, residual fuels demand soared by saw 407 tb/d, y-o-y, in September.

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

By product	Sep 22	Sep 23	Change Growth	Sep 23/Sep 22 %
LPG	2.44	2.75	0.31	12.6
Naphtha	1.43	1.62	0.19	13.1
Gasoline	3.55	3.86	0.32	8.9
Jet/kerosene	0.31	0.83	0.52	169.1
Diesel	3.50	3.98	0.48	13.7
Fuel oil	0.63	1.04	0.41	64.7
Other products	2.25	2.34	0.09	3.9
Total	**14.10**	**16.40**	**2.30**	**16.3**

*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, a continued gradual pickup in economic activity in China is expected, supported by policy measures of the government to address weaker areas of the economy. With the benefit of the very low baseline during the months of lockdown in 2022 quickly fading as the year draws to a close, the momentum of oil demand is anticipated to slow compared to the strong growth seen in 1H23. Nevertheless, growing petrochemical capacity in China will lead to more domestic production of olefins and aromatics, boosting demand for naphtha in the near term. Furthermore, China is expected to have seen an increase in road traffic activity during the mid-Autumn Festival and National Day Golden Week holidays, leading to possible additional growth of demand for transportation fuels demand. Accordingly, oil demand in China in 4Q23 is anticipated to grow by 671 tb/d y-o-y. Overall, in 2023, oil demand in China is expected to record 1.1 mb/d y-o-y growth.

In 2024, China's GDP is expected to show healthy growth of 4.8%, y-o-y. Following the recovery from lockdowns seen in 2022, oil demand in 2024 is forecast to return to normal growth levels, supported by an expected improvement in manufacturing activity, as well as petrochemical sector requirements. In 1Q24, a further surge in international air travel out of China is expected, as the country has lifted the ban on overseas group tours, potentially encouraging more people to travel abroad. This is in addition to the usual seasonal hike in travel during the extended lunar holidays in the quarter. Furthermore, rising petrochemical capacity is expected to bolster petrochemical feedstock demand in China. Thus, oil demand is forecast to see 571 tb/d y-o-y growth in 1Q24. Jet fuel will again drive oil demand growth in this quarter. Light distillates are also expected to continue rising on the back of a sustained expansion of the petrochemical industry.

Increased mobility is expected to boost demand for gasoline and diesel. For the year, China's average y-o-y growth is anticipated to stand at 580 tb/d.

India

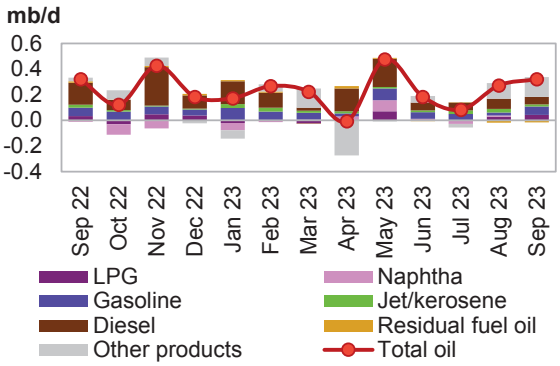
Update on the latest developments

Oil demand in India in September surged further by a healthy 320 tb/d, y-o-y, up from 272 tb/d, y-o-y, growth in the previous month. The main drivers of oil demand growth were the 'other products' category, consisting mostly of bitumen and lube oil, mostly coming from road construction activity.

A report from the Ministry of Statistics and Programme Implementation/Haver Analytics indicates that industrial production in India soared by 10.3%, y-o-y, in August 2023, up from a 5.7%, y-o-y, rise in the previous month and above market expectations of 9%. Similarly, annual inflation retracted to 5.0% in September from 6.8% the previous month.

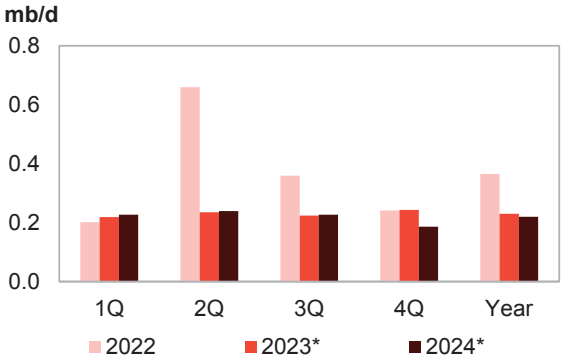
According to Federation of Automobile Dealers Association/Haver Analytics, vehicle sales in September in India increased by over 2%, y-o-y, and by 0.7%, m-o-m. Similarly, Indian, domestic air traffic stood above pre-pandemic levels for the 7th consecutive month, as RPKs increased 6.7% over 2019 levels and 23.2% y-o-y, according to the IATA. The S&P Global India services PMI stood at 61 points in September and the manufacturing PMI was at 57.5 points.

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



Sources: PPAC, JODI, Non-OECD Energy Statistics and OPEC.

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



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

In terms of oil products in September, 'other products', which includes bitumen and lube oil, led oil demand growth by 185 tb/d, y-o-y, higher than the 120 tb/d y-o-y increase recorded in August. Diesel grew by 59 tb/d, y-o-y, slightly below the 81 tb/d seen in the previous month. The Times of India reported that diesel demand decelerated by 5% in the first half of September, as a receding monsoon continued to reduce demand and slowed industrial activities in some parts of India. Gasoline saw 66 tb/d y-o-y growth, up from the 24 tb/d recorded in the previous month. The increase in India's road traffic activity was largely concentrated in the West Bengal region, due to the celebration of a major Hindu festival.

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

By product	Sep 22	Sep 23	Change Growth	Sep 23/Sep 22 %
LPG	0.95	0.99	0.04	4.2
Naphtha	0.33	0.30	-0.03	-9.8
Gasoline	0.80	0.87	0.07	8.2
Jet/kerosene	0.17	0.18	0.02	9.5
Diesel	1.57	1.63	0.06	3.7
Fuel oil	0.13	0.12	-0.01	-10.2
Other products	1.02	1.21	0.19	18.2
Total	**4.97**	**5.29**	**0.32**	**6.4**

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

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

On the back of steady air travel recovery, jet/kerosene demand saw 16 tb/d, y-o-y, growth in September. In terms of petrochemical feedstock, LPG expanded by 40 tb/d, y-o-y, up from 25 tb/d, y-o-y, growth in the previous month, while naphtha saw a decline of 32 tb/d, y-o-y. Residual fuel demand softened by 13 tb/d, y-o-y, albeit showing an improvement from a decline of 20 tb/d, y-o-y seen last month.

Near-term expectations

Looking forward, India's oil demand outlook in 4Q23 should continue to benefit from strong annual GDP growth in 2023, combined with robust manufacturing activity and a proposal by the Indian government to increase capital spending on construction. Furthermore, the post-monsoon harvesting season and construction activity are also expected to support oil demand growth. In addition, the forward-looking indicators show strong manufacturing and services PMIs, suggesting prospects for healthy oil demand in the near term. In 4Q23, oil demand is projected to grow by 243 tb/d, y-o-y. Distillates are expected to be the driver of oil demand growth, supported by harvesting, construction and manufacturing activity. Additionally, traditional festivities are expected to support mobility and boost gasoline demand, while increasing air travel is expected to support jet/kerosene demand.

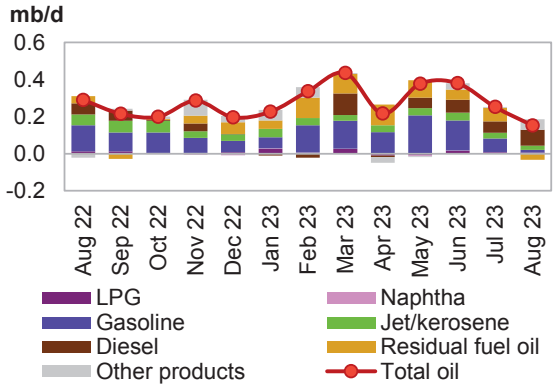
In 1Q24, India's oil demand is expected to remain healthy, growing on average by 227 tb/d, y-o-y. In 1Q24, demand growth is anticipated to be supported by increased mobility and steady demand for distillates in manufacturing and construction. The residential and petrochemical sectors' demand for light distillates are also expected to add support. Overall, in 2024, India is expected to see healthy oil demand growth of 220 tb/d, y-o-y.

Latin America

Update on the latest developments

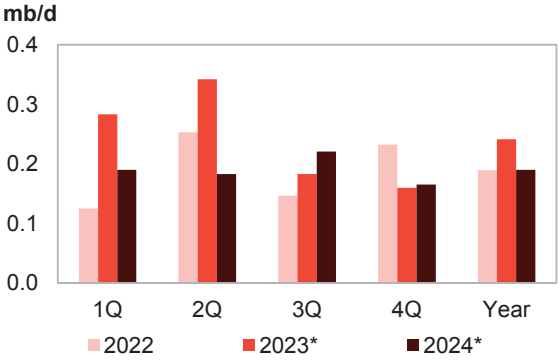
Oil demand in Latin America recorded 152 tb/d, y-o-y, growth in August, down from 252 tb/d, y-o-y, growth reported in July. Oil demand in the region was led by diesel requirements from Brazil.

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



Sources: JODI, Non-OECD Energy Statistics and OPEC.

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



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

The annual inflation rate in Brazil rose to 4.1% in August, up from 3.5% in July. The Brazilian services PMI rose to 50.6 in August, from 50.2 points in July. At the same time, the Brazilian manufacturing PMI improved to reach 50.1 points in August, up from 47.8 points in July.

According to the IATA, airlines in Latin America in August achieved a full recovery in international passenger traffic for the first time, surpassing 2019 levels by 0.1% and growing 26.4%, y-o-y.

In terms of specific products, diesel was the main driver of demand with 84 tb/d, y-o-y, growth, up from 63 tb/d, y-o-y, growth seen in the previous month. In addition, the 'other products' category expanded by 57 tb/d, y-o-y. On the back of steady air travel, jet/kerosene saw 23 tb/d, y-o-y, growth, slightly below the increase of 30 tb/d, y-o-y, recorded a month earlier. Gasoline posted 14 tb/d, y-o-y, growth, down from the 74 tb/d, y-o-y, growth recorded in July. In terms of petrochemical feedstock, the demand for both LPG and naphtha has remained broadly flat for two consecutive months. Finally, demand for residual fuels softened by 33 tb/d, y-o-y.

Near-term expectations

Looking ahead, the positive economic development in the region in 3Q23 is expected to carry over somewhat into 4Q23, albeit to a lesser degree. Some upside potential remains, particularly in Brazil, leading to expectations that oil demand in the region will grow by 160 tb/d, y-o-y, in 4Q23.

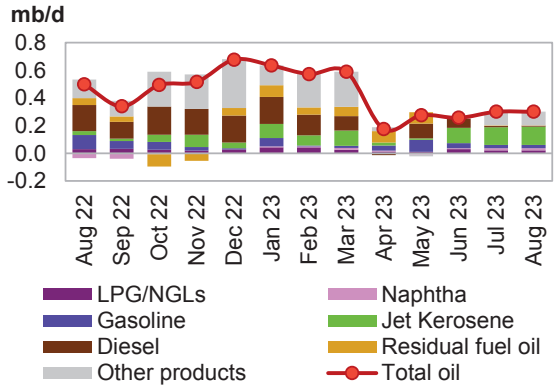
In 2024, steady economic activity, combined with expected improvements in both manufacturing activity and air travel, sees oil demand growth forecast at 190 tb/d y-o-y in 1Q24. For the year, the region's average growth is anticipated to stand at 190 tb/d y-o-y. The outlook for oil demand growth sees transportation fuel demand expanding the most, followed by diesel and petrochemical feedstock.

Middle East

Update on the latest developments

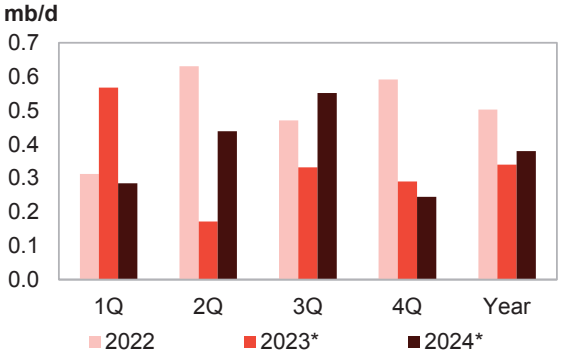
Oil demand in the Middle East in August expanded by 301 tb/d, y-o-y, for the second consecutive month. Demand growth was mostly supported by transportation fuels, particularly jet/kerosene in Iraq, Saudi Arabia and the UAE.

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



Sources: JODI, Non-OECD Energy Statistics and OPEC.

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



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

Ongoing strong oil demand in the region is supported by overall healthy economic activity amid low inflation in the region. The composite PMIs in the region's largest economies, Saudi Arabia and the UAE, have been consistently in expansionary territory for more than one year. Moreover, in terms of air travel, the IATA reported that Middle Eastern carriers saw 26.1%, y-o-y growth in international RPKs in August, while traffic levels were only 3.7% below pre-pandemic levels.

For the third consecutive month, jet/kerosene was the main driver of oil demand in the region, recording 131 tb/d, y-o-y, growth, which was even higher than the 128 tb/d seen the previous month. Other fuels' recorded nearly 100 tb/d, y-o-y, growth. Gasoline grew by 25 tb/d, y-o-y, for the second consecutive month. In terms of petrochemical feedstocks, LPG posted 23 tb/d, y-o-y, growth and naphtha saw 14 tb/d, y-o-y, growth. Residual fuel demand in the Middle East was flat for the second consecutive month.

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

By product	Sep 22	Sep 23	Change Growth	Sep 23/Sep 22 %
LPG	0.07	0.07	0.00	-0.3
Naphtha	0.00	0.01	0.01	1,079.3
Gasoline	0.19	0.20	0.01	3.4
Jet/kerosene	0.01	0.03	0.02	184.6
Diesel	0.19	0.19	0.00	-0.3
Fuel oil	0.24	0.28	0.04	15.5
Other products	0.24	0.25	0.01	4.0
Total	**0.94**	**1.02**	**0.08**	**8.9**

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

Sources: JODI and OPEC.

Near-term expectations

Steady economic activity in the region is expected to be sustained. In addition, the continued strong recovery in international air traffic, combined with rising demand for heating, are expected to boost jet/kerosene and fuel oil demand. Oil demand growth in the region is expected to expand by an average of 290 tb/d y-o-y in 4Q23.

Regional economic activity is expected to remain healthy in 1Q24, with 2024 GDP growth rates forecast to surpass those of 2023. In addition, air travel is expected to surpass pre-pandemic levels. Gasoline, transportation diesel and jet kerosene are expected to lead oil demand growth, which is expected to stand at 285 tb/d, y-o-y, in 1Q24. Overall, in 2024, the Middle East is expected to see strong growth of nearly 380 tb/d, y-o-y. The bulk of demand growth is expected to come from Iraq, Saudi Arabia, and the UAE.

World Oil Supply

Non-OPEC liquids production in 2023 is expected to grow by 1.8 mb/d, y-o-y, reaching 67.6 mb/d. Upward revisions to the forecasts for Russia, the US and Brazil more than offset downward revisions to OECD Europe and Other Asia.

US crude and condensate production is estimated to reach the highest level ever in August, just passing the record of 13 mb/d set in November 2019. This brings total liquid output to about 21.2 mb/d in August, an increase of 1.7 mb/d, y-o-y. Accordingly, US liquids supply growth for 2023 is forecast at 1.3 mb/d. In addition to the US, the other main growth drivers for 2023 are expected to be Brazil, Norway, Kazakhstan, Guyana and China. Nonetheless, there are uncertainties related to weather-related disruptions and unplanned offshore maintenance for the rest of the year.

Non-OPEC liquids production in 2024 is forecast to grow by 1.4 mb/d to average 69.0 mb/d (including 50 tb/d in processing gains). OECD liquids supply is forecast to increase by 0.9 mb/d to average 33.3 mb/d, while non-OECD liquids supply is seen growing by 0.4 mb/d to average at 33.1 mb/d. The main drivers for the expected growth are the US, Canada, Guyana, Brazil, Norway and Kazakhstan. Along with the US shale basins, projected ramp-ups, especially in the offshore assets, are expected to be the main sources of growth. At the same time, production is forecast to see the largest declines in Mexico and Malaysia.

OPEC NGLs and non-conventional liquids production in 2023 is forecast to grow by about 50 tb/d to average 5.4 mb/d and to increase by 65 tb/d to average 5.5 mb/d in 2024. OPEC-13 crude oil production in October increased by 80 tb/d, m-o-m, to average 27.90 mb/d, according to available secondary sources.

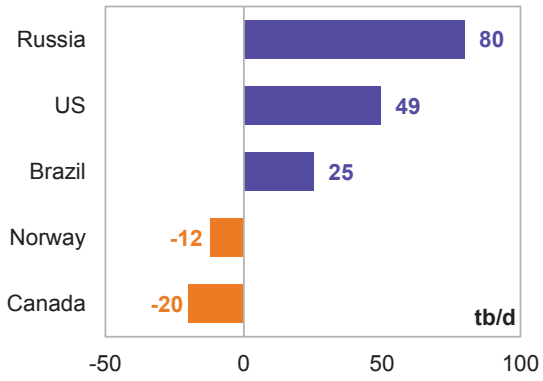
Non-OPEC liquids production in October, including OPEC NGLs, is estimated to have increased by 0.2 mb/d, m-o-m, to average 73.7 mb/d. This is an increase of 1.5 mb/d, y-o-y. As a result, preliminary data indicated that October's global oil supply is up by 0.27 mb/d, m-o-m, averaging 101.6 mb/d, down by 0.15 mb/d, y-o-y.

Non-OPEC liquids production in 2023 is forecast to expand by 1.8 mb/d. This is up 0.1 mb/d from the previous month's growth assessment, mainly due to upward revisions to Russia and the US. It is worth noting, that this takes into account all announced production adjustments of the countries in the DoC to the end of 2023.

Overall **OECD supply growth** for 2023 is revised up. While OECD Europe sees a downward revision due to Norway and the UK, OECD Americas is revised up mainly owing to the US. OECD Asia Pacific's output growth is expected to remain unchanged.

The **non-OECD supply growth** projection for 2023 was revised up by about 85 tb/d and is now expected to grow by 0.3 mb/d y-o-y. Latin America is expected to be the main growth driver in the non-OECD region followed by Other Eurasia and China.

Graph 5 - 1: Major revisions to annual supply change forecast in 2023*, MOMR Nov 23/Oct 23

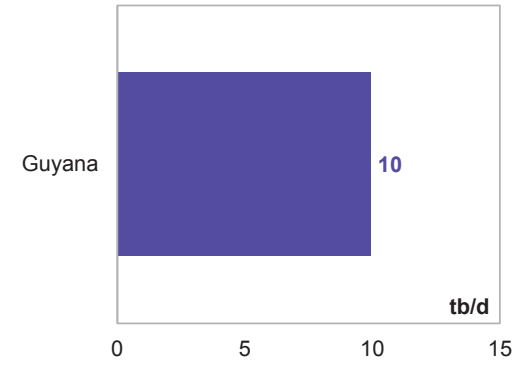


*Note: * 2023 = Forecast. Source: OPEC.*

Non-OPEC liquids production growth forecast in **2024** remained unchanged compared with the previous month's assessment at an average of 1.4 mb/d.

The upward revision to the supply forecast of Guyana offset downward revisions to a few other countries.

Graph 5 - 2: Major revisions to annual supply change forecast in 2024*, MOMR Nov 23/Oct 23

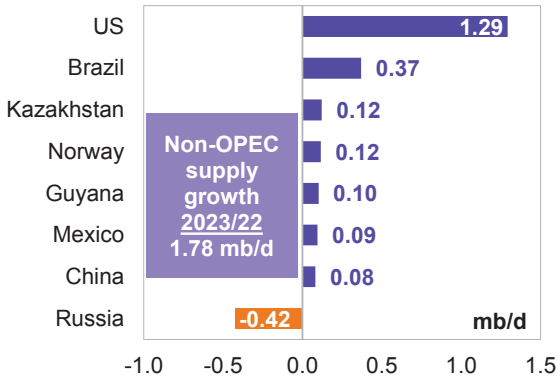


*Note: * 2024 = Forecast. Source: OPEC.*

Key drivers of growth and decline

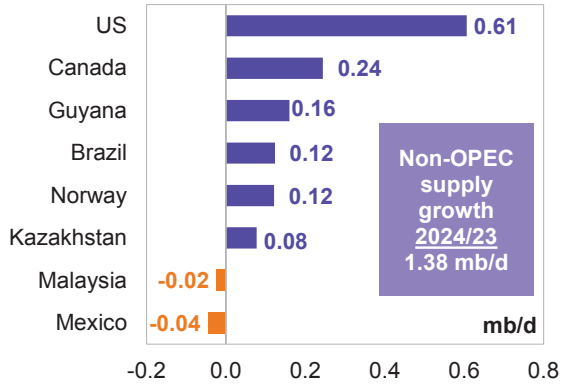
The **key drivers of non-OPEC liquids supply growth in 2023** are projected to be the US, Brazil, Kazakhstan, Norway, Guyana, Mexico and China, while oil production is projected to see the largest decline in Russia.

Graph 5 - 3: Annual liquids production changes y-o-y for selected countries in 2023*



*Note: * 2023 = Forecast. Source: OPEC.*

Graph 5 - 4: Annual liquids production changes y-o-y for selected countries in 2024*



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

For **2024**, the key drivers of non-OPEC supply growth are forecast to be the US, Canada, Guyana, Brazil, Norway and Kazakhstan, while oil production is projected to see the largest declines in Mexico and Malaysia.

Non-OPEC liquids production in 2023 and 2024

Table 5 - 1: Non-OPEC liquids production in 2023*, mb/d

							Change 2023/22	
Non-OPEC liquids production	**2022**	**1Q23**	**2Q23**	**3Q23**	**4Q23**	**2023**	**Growth**	**%**
Americas	26.91	27.90	28.18	28.86	28.36	28.33	1.41	5.26
of which US	*19.28*	*20.10*	*20.70*	*21.05*	*20.44*	*20.58*	*1.29*	*6.70*
Europe	3.58	3.69	3.65	3.52	3.73	3.65	0.06	1.79
Asia Pacific	0.48	0.45	0.45	0.45	0.47	0.46	-0.02	-4.52
Total OECD	**30.97**	**32.04**	**32.27**	**32.84**	**32.56**	**32.43**	**1.46**	**4.70**
China	4.48	4.63	4.63	4.49	4.49	4.56	0.08	1.82
India	0.77	0.76	0.78	0.78	0.78	0.78	0.00	0.32
Other Asia	2.30	2.31	2.26	2.24	2.38	2.30	-0.01	-0.27
Latin America	6.34	6.69	6.76	7.06	6.92	6.86	0.52	8.24
Middle East	3.29	3.27	3.29	3.27	3.30	3.28	0.00	-0.13
Africa	1.29	1.24	1.27	1.27	1.30	1.27	-0.02	-1.85
Russia	11.03	11.19	10.86	10.77	9.63	10.61	-0.42	-3.83
Other Eurasia	2.83	2.99	2.93	2.82	2.99	2.93	0.11	3.73
Other Europe	0.11	0.11	0.10	0.10	0.10	0.10	0.00	-2.73
Total Non-OECD	**32.44**	**33.21**	**32.89**	**32.80**	**31.89**	**32.69**	**0.25**	**0.78**
Total Non-OPEC production	63.41	65.25	65.16	65.64	64.45	65.12	1.71	2.69
Processing gains	2.40	2.47	2.47	2.47	2.47	2.47	0.07	2.96
Total Non-OPEC liquids production	**65.81**	**67.72**	**67.63**	**68.11**	**66.92**	**67.59**	**1.78**	**2.70**
Previous estimate	65.81	67.72	67.61	67.77	66.88	67.49	1.68	2.55
Revision	0.00	0.00	0.02	0.34	0.04	0.10	0.10	0.15

*Note: * 2023 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

Table 5 - 2: Non-OPEC liquids production in 2024*, mb/d

Non-OPEC liquids production	2023	1Q24	2Q24	3Q24	4Q24	2024	Change 2024/23 Growth	Change 2024/23 %
Americas	28.33	28.79	28.83	29.30	29.61	29.13	0.81	2.84
of which US	*20.58*	*20.84*	*21.06*	*21.33*	*21.49*	*21.18*	*0.61*	*2.95*
Europe	3.65	3.85	3.73	3.68	3.82	3.77	0.13	3.47
Asia Pacific	0.46	0.46	0.43	0.44	0.43	0.44	-0.01	-2.91
Total OECD	**32.43**	**33.11**	**33.00**	**33.42**	**33.86**	**33.35**	**0.92**	**2.83**
China	4.56	4.58	4.57	4.54	4.54	4.56	-0.01	-0.11
India	0.78	0.79	0.79	0.79	0.78	0.79	0.01	1.70
Other Asia	2.30	2.28	2.25	2.23	2.23	2.25	-0.05	-2.06
Latin America	6.86	7.07	7.10	7.23	7.30	7.18	0.31	4.59
Middle East	3.28	3.33	3.32	3.31	3.32	3.32	0.04	1.17
Africa	1.27	1.26	1.27	1.32	1.35	1.30	0.03	2.35
Russia	10.61	10.43	10.55	10.67	10.78	10.61	0.00	-0.03
Other Eurasia	2.93	3.01	3.00	2.99	3.03	3.01	0.07	2.50
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	-1.15
Total Non-OECD	**32.69**	**32.85**	**32.95**	**33.18**	**33.43**	**33.11**	**0.41**	**1.26**
Total Non-OPEC production	65.12	65.96	65.95	66.60	67.29	66.46	1.33	2.05
Processing gains	2.47	2.52	2.52	2.52	2.52	2.52	0.05	2.03
Total Non-OPEC liquids production	**67.59**	**68.48**	**68.47**	**69.12**	**69.81**	**68.97**	**1.38**	**2.04**
Previous estimate	67.49	68.34	68.37	69.03	69.75	68.88	1.38	2.05
Revision	0.10	0.14	0.10	0.09	0.07	0.10	0.00	0.00

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

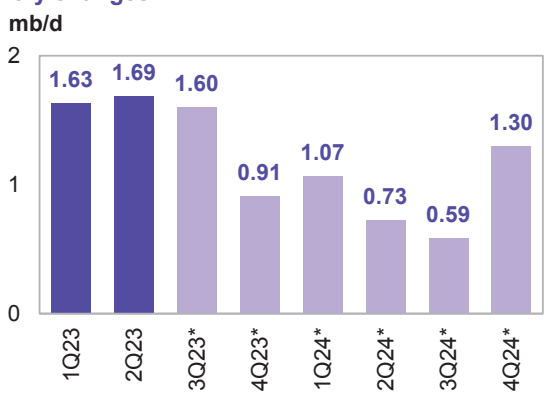
Source: OPEC.

OECD

OECD liquids production in 2023 is forecast to expand by 1.5 mb/d to average 32.4 mb/d. An upward adjustment was applied m-o-m following higher expectations for growth in OECD Americas.

Growth is set to be led by OECD Americas, which is forecast to expand by 1.4 mb/d to average 28.3 mb/d. This is revised up by about 40 tb/d compared with previous month's assessment. Yearly liquids production in OECD Europe is expected to grow by 0.1 mb/d to average 3.6 mb/d. This is down by about 20 tb/d compared with the previous month. OECD Asia Pacific is expected to decline by about 20 tb/d, y-o-y, to average 0.5 mb/d.

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



*Note: * 3Q23-4Q24 = Forecast. Source: OPEC.*

For **2024**, OECD liquid production is likely to grow by 0.9 mb/d to average 33.3 mb/d. Growth will once again be led by OECD Americas, with an expected increase of 0.8 mb/d for an average of 29.1 mb/d. Yearly liquid production in OECD Europe is expected to grow by 0.1 mb/d to average 3.8 mb/d, while OECD Asia Pacific is expected to decline by 13 tb/d, y-o-y, reaching an average of 0.4 mb/d.

OECD Americas

US

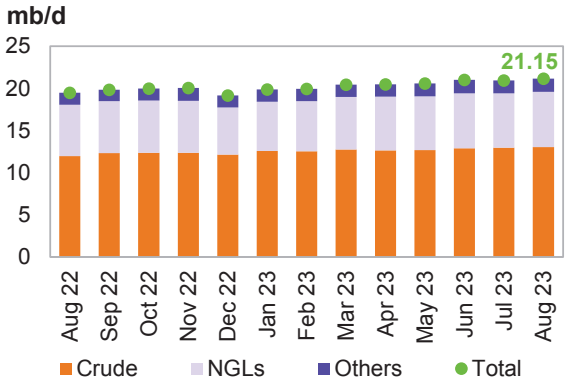
US liquids production in **August** rose by 188 tb/d, m-o-m, to average 21.2 mb/d, the highest level on record. This was up by 1.7 mb/d compared with August 2022.

Crude oil and condensate production rose by 94 tb/d, m-o-m, to average 13.1 mb/d in **August**. This was up by 1.1 mb/d, y-o-y.

In terms of **crude and condensate production breakdowns by region (PADDs)**, production increased on the US Gulf Coast (USGC) by about 30 tb/d to average 9.4 mb/d. Production in the Rocky Mountain and Midwest regions rose by 35 tb/d. Output on the West and East Coasts remained broadly unchanged, m-o-m.

Production growth in the main regions was primarily driven by robust output in New Mexico and North Dakota producing wells, while output in the Gulf of Mexico (GoM) mainly declined.

Graph 5 - 6: US monthly liquids output by key component



Sources: EIA and OPEC.

NGL production was up by about 100 tb/d, m-o-m, averaging 6.5 mb/d in August. This was higher by 0.5 mb/d, y-o-y. According to the US Department of Energy (DoE), the production of **non-conventional liquids** (mainly ethanol) fell by just 9 tb/d, m-o-m, to average 1.5 mb/d. Preliminary estimates see non-conventional liquids averaging about 1.5 mb/d in September, broadly unchanged m-o-m.

GoM production dropped by 42 tb/d, m-o-m, to average 1.9 mb/d in August, but highly supported by new project ramp-ups. Normal production was seen in most Gulf Coast offshore platforms following recent maintenance. In the **onshore Lower 48**, crude and condensate production increased by 137 tb/d, m-o-m, to average 10.8 mb/d in August.

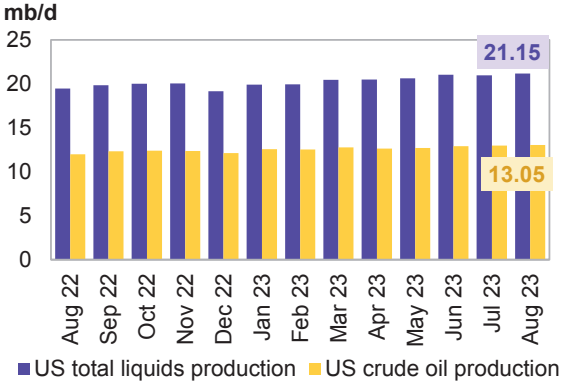
Table 5 - 3: US crude oil production by selected state and region, tb/d

State	Aug 22	Jul 23	Aug 23	Change m-o-m	Change y-o-y
Texas	5,092	5,606	5,631	*25*	*539*
Gulf of Mexico (GOM)	1,761	1,933	1,891	*-42*	*130*
New Mexico	1,609	1,757	1,797	*40*	*188*
North Dakota	1,062	1,180	1,217	*37*	*155*
Colorado	437	452	463	*11*	*26*
Oklahoma	414	438	428	*-10*	*14*
Alaska	413	397	396	*-1*	*-17*
Total	**11,985**	**12,959**	**13,053**	***94***	***1,068***

Sources: EIA and OPEC.

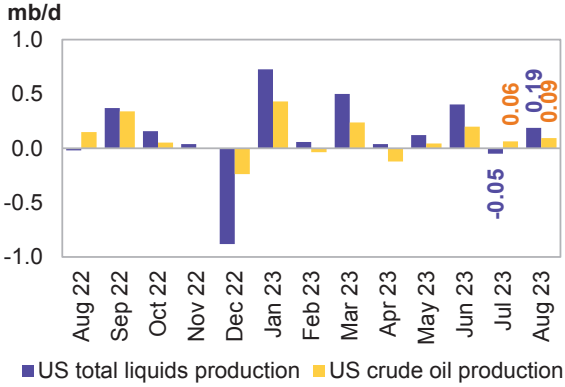
Looking at **individual US states**, New Mexico's oil production rose by 40 tb/d to average 1.8 mb/d, which is 188 tb/d higher than a year ago. Production from Texas was up by 25 tb/d to average 5.6 mb/d, which is 539 tb/d higher than a year ago. In the Midwest, North Dakota's production rose by 37 tb/d, m-o-m, to an average of 1.2 mb/d, up 155 tb/d, y-o-y, while Oklahoma production dropped by 10 tb/d, m-o-m, to an average of 0.4 mb/d. Production in Alaska remained unchanged, while output in Colorado rose by 11 tb/d.

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



Sources: EIA and OPEC.

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



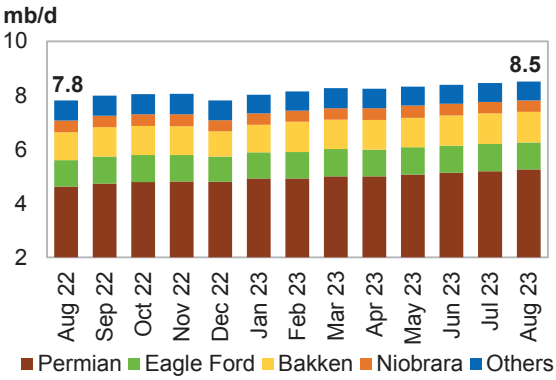
Sources: EIA and OPEC.

US tight crude output in **August** is estimated to have risen by 54 tb/d, m-o-m, to average 8.5 mb/d, according to the latest estimates. This was 0.7 mb/d higher than in 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 rose by 62 tb/d for an average of 5.3 mb/d. This was up by 634 tb/d, y-o-y.

In North Dakota, Bakken shale oil output remained largely unchanged m-o-m to average 1.1 mb/d, up by 104 tb/d, y-o-y. Tight crude output at Eagle Ford in Texas dropped by a minor 4 tb/d to average 1.0 mb/d, up by 20 tb/d, y-o-y. Production in Niobrara-Codell in Colorado and Wyoming was unchanged at an average of 422 tb/d.

Graph 5 - 9: US tight crude output breakdown

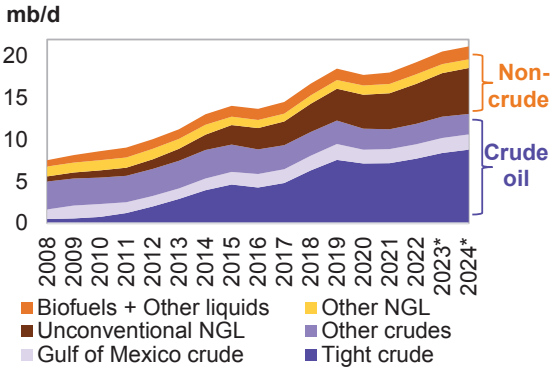


Sources: EIA and OPEC.

US liquids production in **2023**, excluding processing gains, is forecast to expand by 1.3 mb/d, y-o-y, to average 20.6 mb/d. This is up by about 50 tb/d compared with the previous month's assessment, due to stronger-than-expected output in previous months. Despite declining drilling activity since the start of this year, well productivity and operational efficiency have proved to boost production. In addition, it is assumed there will be fewer supply chain/logistical issues in major prolific shale sites for the remainder of 2023.

Given a sound level of oil field drilling and well completions, **crude oil and condensate** output is expected to increase by 0.8 mb/d, y-o-y, to average 12.8 mb/d. Average tight crude output in 2023 is forecast at 8.4 mb/d, up by 0.7 mb/d, y-o-y.

Graph 5 - 10: US liquids supply developments by component



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

At the same time, NGL production and non-conventional liquids, particularly ethanol, are forecast to increase by 0.4 mb/d and 61 tb/d, y-o-y, to average 6.3 mb/d and 1.5 mb/d, respectively.

US liquids production in **2024**, excluding processing gains, is expected to grow by 0.6 mb/d, y-o-y, to average 21.2 mb/d, assuming a modest level of drilling activity and less supply chain issues at the prolific Permian, Bakken and Eagle Ford shale sites. Crude oil and condensate output is expected to jump by 0.3 mb/d, y-o-y, to average 13.1 mb/d. At the same time, NGL production and that of non-conventional liquids, particularly ethanol, are projected to increase by 0.2 mb/d and 30 tb/d, y-o-y, to average 6.5 mb/d and 1.5 mb/d, respectively.

Average tight crude output in 2024 is expected to reach 8.8 mb/d, up by 0.4 mb/d, y-o-y. The 2024 forecast assumes ongoing capital discipline and less inflationary pressure, as well as moderating supply chain issues and oil field service constraints (labour and equipment).

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

US liquids	2022	Change 2022/21	2023*	Change 2023/22	2024*	Change 2024/23
Tight crude	7.73	0.55	8.40	0.67	8.80	0.40
Gulf of Mexico crude	1.73	0.02	1.82	0.09	1.85	0.03
Conventional crude oil	2.45	0.07	2.54	0.09	2.45	-0.09
Total crude	**11.91**	**0.64**	**12.76**	**0.85**	**13.10**	**0.34**
Unconventional NGLs	4.78	0.47	5.22	0.44	5.47	0.26
Conventional NGLs	1.15	0.04	1.10	-0.05	1.07	-0.03
Total NGLs	**5.93**	**0.51**	**6.32**	**0.38**	**6.55**	**0.23**
Biofuels + Other liquids	1.44	0.08	1.50	0.06	1.53	0.03
US total supply	**19.28**	**1.23**	**20.58**	**1.29**	**21.18**	**0.61**

*Note: * 2023 and 2024 = Forecast.*

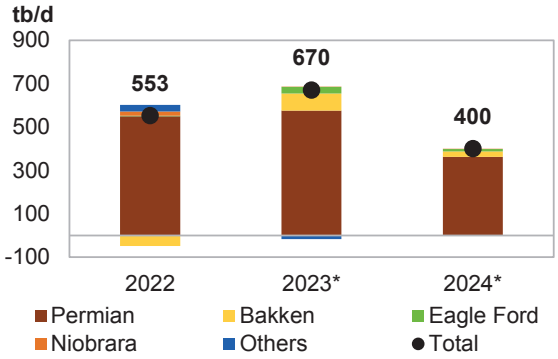
Sources: EIA, OPEC and Rystad Energy.

US tight crude production in the **Permian** during 2023 is expected to increase by 0.6 mb/d, y-o-y, to 5.1 mb/d, while in 2024, it is forecast to grow by 0.4 mb/d, y-o-y, to average 5.5 mb/d.

In **North Dakota**, **Bakken** shale production is still expected to remain below the pre-pandemic average of 1.4 mb/d. In 2023, growth is forecast at 78 tb/d for an average of 1.1 mb/d. Growth of just 25 tb/d is expected for 2024 for an average of 1.1 mb/d, demonstrating signs of maturity in the basin.

The **Eagle Ford** in Texas saw an output of 1.2 mb/d in 2019, followed by declines in 2020 and 2021 and no growth in 2022. With an expected growth of about 30 tb/d for 2023, output rests at an average of 1.0 mb/d. At the same time, minor growth of 10 tb/d is expected for 2024.

Graph 5 - 11: US tight crude output by shale play, y-o-y changes



*Note: * 2023 and 2024 = Forecast.*
Sources: EIA and OPEC.

Niobrara's production is expected to remain unchanged y-o-y in 2023 with an average of 435 tb/d. Meanwhile, no growth is expected for 2024. With a modest pace of drilling and completion activities, production in other tight plays is expected to show a drop of 17 tb/d in 2023, then remain steady in 2024.

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

US tight oil	2022	Change 2021/20	2023*	Change 2023/22	2024*	Change 2024/23
Permian tight	4.57	0.55	5.15	0.58	5.51	0.36
Bakken shale	1.03	-0.05	1.11	0.08	1.13	0.02
Eagle Ford shale	0.96	0.00	1.00	0.03	1.01	0.01
Niobrara shale	0.43	0.02	0.43	0.00	0.44	0.00
Other tight plays	0.73	0.03	0.71	-0.02	0.71	0.00
Total	**7.73**	**0.55**	**8.40**	**0.67**	**8.80**	**0.40**

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

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

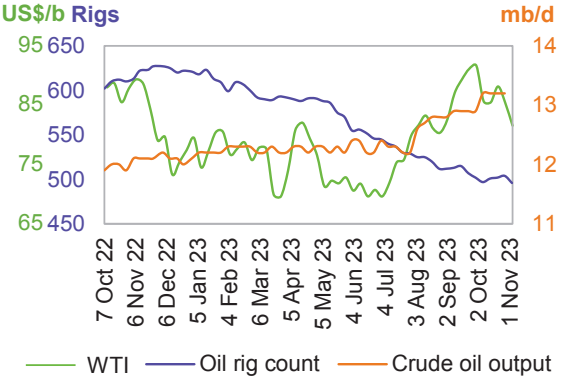
Total **active US drilling rigs** in the week ending 3 November 2023 fell by 7 to 618, according to Baker Hughes. This was 152 rigs less than a year ago. The number of active offshore rigs dropped by 3, w-o-w, to 21. This was higher by 7 compared with the same month a year earlier. Onshore oil and gas rigs were lower by 6, w-o-w, to stand at 594, with 3 rigs in inland waters. This is down by 160 rigs, y-o-y.

The **US horizontal rig count** dropped by 9, w-o-w, to 549, compared with 705 horizontal rigs a year ago. The number of drilling rigs for oil dropped by 8, w-o-w, to 496, while the number of gas-drilling rigs rose by 1, w-o-w, to 118.

The Permian's rig count fell by 3, w-o-w, to 310. Rig counts fell by 1 in Williston to 32 and remained unchanged in Eagle Ford at 51.

The rig count remained unchanged, w-o-w, in DJ-Niobrara at 14 and fell by 1 in Cana Woodford to 13. No operating oil or gas rigs have been reported in the Barnett Basin since 21 July.

Graph 5 - 12: US weekly rig count vs. US crude oil output and WTI price



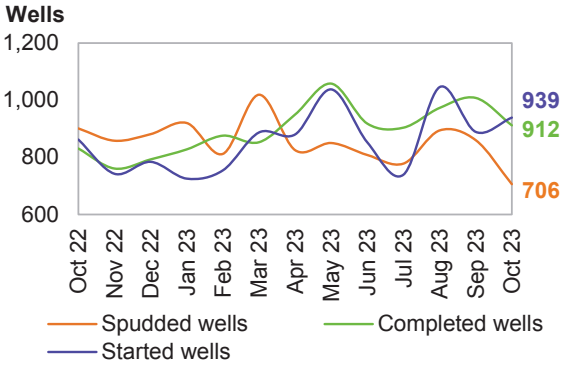
Sources: Baker Hughes, EIA and OPEC.

Drilling and completion (D&C) activities for spudded, completed and started oil-producing wells in all US shale plays included 860 horizontal wells spudded in September (as per preliminary data), based on EIA-DPR regions. This is down by 34, m-o-m, and 3% lower than in September 2022.

Preliminary data for September indicates a higher number of completed wells at 1,008, up by 15%, y-o-y. The number of started wells is estimated at 889, which is 2% higher than a year earlier.

Preliminary data for October 2023 saw 706 spudded, 912 completed and 939 started wells, according to Rystad Energy.

Graph 5 - 13: Spudded, completed and started wells in US shale plays

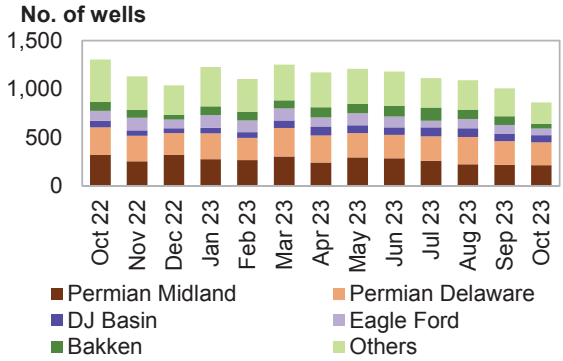


Note: Sep 23-Oct 23 = Preliminary data.
Sources: Rystad Energy and OPEC.

In terms of identified **US oil and gas fracking operations by region**, Rystad Energy reported that 1,089 wells were fracked in August. In September and October, it stated that 1,007 and 862 wells began fracking, respectively, according to preliminary numbers which are based on the analysis of high-frequency satellite data.

In regional terms, preliminary September data shows that 219 and 243 wells were fracked in Permian Midland and Permian Delaware, respectively. Compared with August, there was a decline of 6 wells in the Midland region and a drop of 37 in Delaware. Data also indicates that 73 wells were fracked in the DJ Basin, 95 in Eagle Ford and 89 in Bakken in September.

Graph 5 - 14: Fracked wells count per month



Note: Sep 23-Oct 23 = Preliminary data.
Sources: Rystad Energy Shale Well Cube and OPEC.

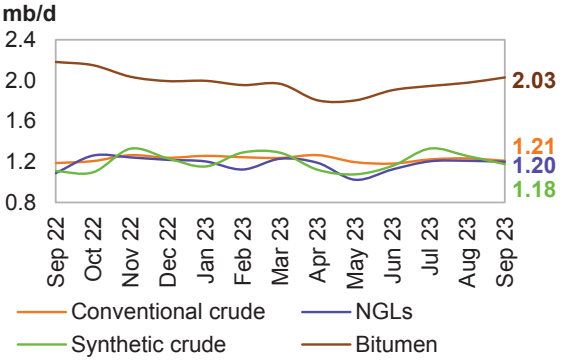
Canada

Canada's liquids production in **September** is estimated to have fallen by 61 tb/d, m-o-m, to average 5.7 mb/d, mainly due to the planned maintenance in a few oil sand upgraders.

Conventional crude production dropped by 23 tb/d, m-o-m, in September to average 1.2 mb/d, and NGL output decreased by a minor 10 tb/d to average 1.2 mb/d.

Crude bitumen production output rose by 52 tb/d, m-o-m, while synthetic crude decreased by 80 tb/d, m-o-m. Taken together, crude bitumen and synthetic crude production fell by 28 tb/d to 3.2 mb/d.

Graph 5 - 15: Canada's monthly liquids production development by type



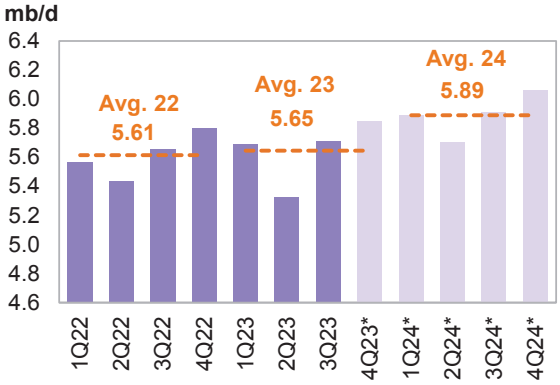
Sources: Statistics Canada, Alberta Energy Regulator and OPEC.

For **2023**, Canada's liquids production is forecast to increase by about 30 tb/d to average 5.6 mb/d. This is revised down by 20 tb/d compared with the previous month's assessment, mainly due to lower expected growth potential in 4Q23.

Oil sands output has not fully recovered from the heavy scheduled maintenance, but a full recovery is expected for 4Q23. At the same time, the Terra Nova Floating Production Storage and Offloading unit (FPSO) is also expected to restart production in the following months after prolonged and delayed repairs.

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 average 5.9 mb/d. Incremental production is expected to come through oil sands project ramp-ups and debottlenecking, in areas like Montney, Kearl and Fort Hills, in addition to some conventional field growth.

Graph 5 - 16: Canada's quarterly liquids production and forecast



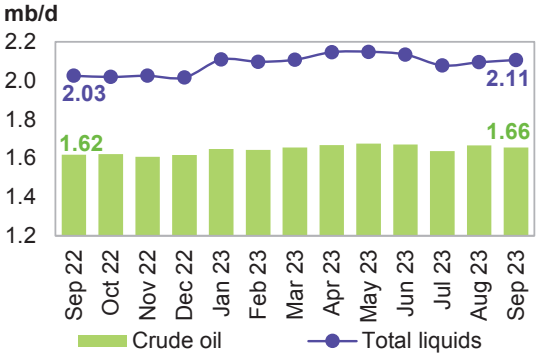
*Note: * 4Q23-4Q24 = Forecast. Source: OPEC.*

Mexico

Mexico's crude output decreased by 10 tb/d, m-o-m, in **September** to average 1.7 mb/d, while NGL output rose by 22 tb/d. Mexico's total September liquids output rose by 12 tb/d, m-o-m, to an average of 2.1 mb/d, according to the Comisión Nacional de Hidrocarburos (CNH). This was practically in line with previous expectations, as Cantarell production has not fully recovered and ramp-up of new gas condesate fields offset outages in some mature oil fields.

For **2023**, liquids production is forecast to rise by about 90 tb/d to an average of 2.1 mb/d. This is up by a minor 9 tb/d from the previous month's assessment. It is expected that the declines from mature fields could start offsetting monthly gains from new fields in the coming months.

Graph 5 - 17: Mexico's monthly liquids and crude production development



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

For **2024**, liquids production is forecast to decline by 45 tb/d to average 2.1 mb/d. In general, it is expected that declines from mature fields will offset gains from new fields. Pemex's total crude production decline in mature areas like Ku-Maloob-Zaap and 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.

OECD Europe

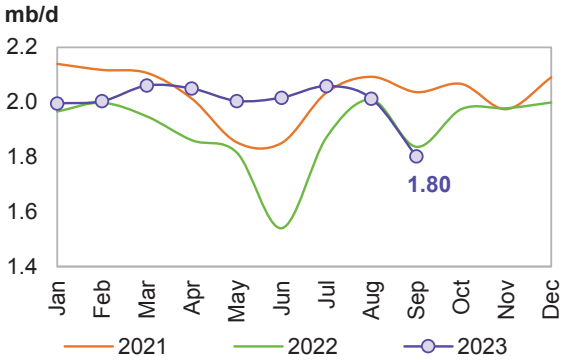
Norway

Norwegian liquids production in **September** fell by 0.2 mb/d, m-o-m, to average 1.8 mb/d due to unplanned shutdownd and equipment failure on a number of platforms.

Norway's crude production dropped by 145 tb/d, m-o-m, in September to average 1.6 mb/d, higher by a minor 5 tb/d, y-o-y. Monthly oil production was 4.7% lower than the Norwegian Petroleum Directorate's (NPD) forecast.

Production of NGLs and condensate, meanwhile, fell by 65 tb/d, m-o-m, to average 0.2 mb/d, according to NPD data.

Graph 5 - 18: Norway's monthly liquids production development



Sources: The Norwegian Petroleum Directorate (NPD) and OPEC.

In **2023**, Norwegian liquids production is forecast to expand by 0.1 mb/d, revised down by 12 tb/d compared with last month's forecast, for an average of 2.0 mb/d. Technical challenges, operational irregularities and periodical shut-downs have been the main causes of output declines in Norwegian production. Production from the Valhall area in the southern Norwegian North Sea as well as Skarv field output fell in the third quarter largely due to unplanned shutdowns. On the other side, production at the Breidablikk heavy crude field, operated by Equinor, was lauched in October, one year ahead of schedule. The field is one of the largest undeveloped oil discoveries on the Norwegian shelf and its producing wells will be tied back to the Grane platform for processing.

For **2024**, Norwegian liquids production is forecast to grow by 120 tb/d to average 2.1 mb/d. Some small-to-large projects are scheduled to ramp up in 2024. At the same time, project start-ups are expected at offshore projects as Balder/Ringhorne, Eldfisk, Kristin, Alvheim FPSO, Hanz, Aasgard FPSO and PL636. Norway's Equinor and its partners stated that they had raised the project cost estimate for their joint Johan Castberg oilfield in the Arctic Barents Sea due to a larger-than-expected scope of work and cost increases in the industry. Johan Castberg is projected to be the main source of output increases next year, with the first oil planned to be produced in 4Q24.

UK

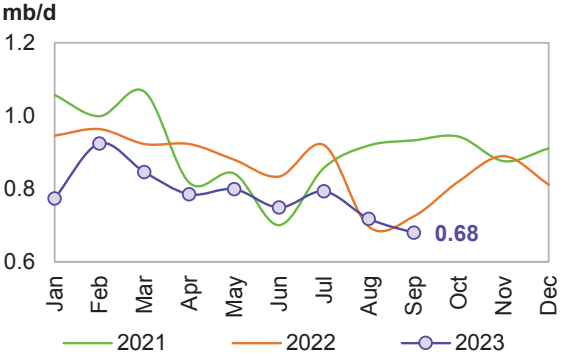
In **September**, **UK liquids production** fell by 38 tb/d, m-o-m, to average 0.7 mb/d. Crude oil output decreased by 43 tb/d, m-o-m, to average 0.5 mb/d, lower by 43 tb/d, y-o-y, according to official data. NGL output was up by a minor 5 tb/d and averaged at 68 tb/d. UK liquids output in September was down by 6% compared with September 2022, mainly due to natural declines and maintenance.

For **2023**, UK liquids production is forecast to drop by almost 60 tb/d to average 0.8 mb/d, down by about 9 tb/d from the previous month's assessment mainly due to lower-than-expected September output.

For **2024**, UK liquids production is forecast to stay steady at an average of 0.8 mb/d. Production ramp-ups will be seen at the ETAP and Clair, as well as the Anasuria and Captain enhanced oil recovery (EOR) start-up projects. The launch of Penguins redevelopment is now planned for 1Q24.

UK offshore operators have completed 12 Exploration and Appraisal (E&A) wells and 48 development wells this year, according to the North Sea Transition Authority's (NSTA) latest wells insight report from October to help ensure UK energy security.

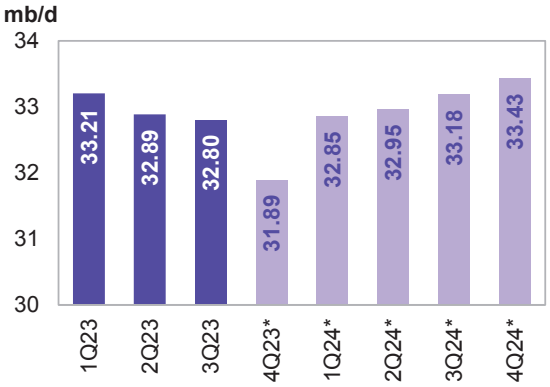
Graph 5 - 19: UK monthly liquids production development



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

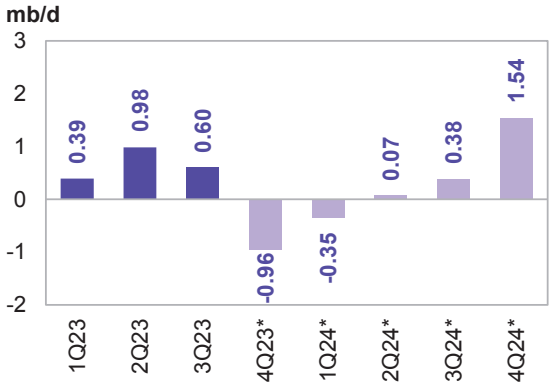
Non-OECD

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



*Note: * 4Q23-4Q24 = Forecast. Source: OPEC.*

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

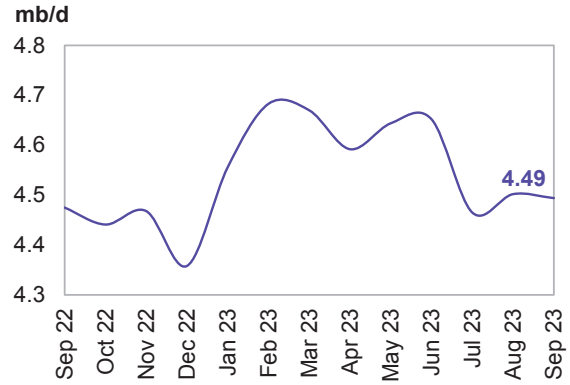


*Note: * 4Q23-4Q24 = Forecast. Source: OPEC.*

China

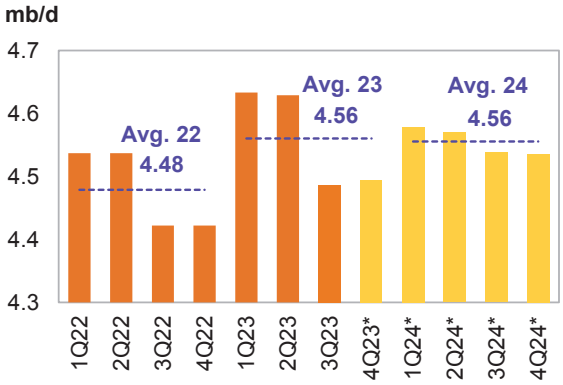
China's liquids production fell by a minor 8 tb/d, m-o-m, to average 4.5 mb/d in **September**. This is up by 19 tb/d, y-o-y, according to official data. Crude oil output in September averaged 4.1 mb/d, down by 8 tb/d compared with the previous month, and higher by 16 tb/d, y-o-y. NGL and condensate production was largely stable, m-o-m, averaging 48 tb/d.

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



Sources: CNPC and OPEC.

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



*Note: * 4Q23-4Q24 = Forecast. Sources: CNPC and OPEC.*

For **2023**, y-o-y growth of about 80 tb/d is forecast for an average of 4.6 m/d. This is roughly unchanged from the previous month's assessment. Natural decline rates are expected to be offset by additional growth through more infill wells and EOR projects amid efforts made by state-owned oil companies to safeguard energy supplies. CNOOC brought two new offshore oilfields in China onstream during 3Q23. The Bozhong 28-2 oilfield second adjustment project, located at a water depth of 21 m, was started up in the southern Bohai Sea. In the eastern south China Sea, the company launched the Lufeng 12-3 oilfield development project depths of about 240 m.

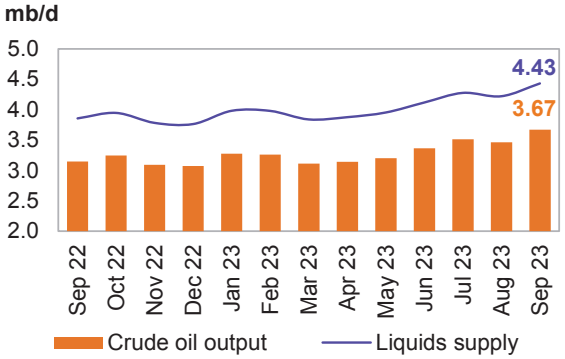
For **2024**, Chinese liquids production is expected to remain steady, y-o-y, and is forecast to average 4.6 m/d. For next year, Lingshui 17-2, Lufeng, Liuhua 11-1, Xi'nan, Shayan and Liuhua 4-1 (redevelopment) are planned to come on stream by CNOOC, PetroChina and Sinopec. At the same time, key ramp-ups are expected from Changqing, Kenli 10-2, Wushi 17-2 and Kenli 6-4.

Latin America

Brazil

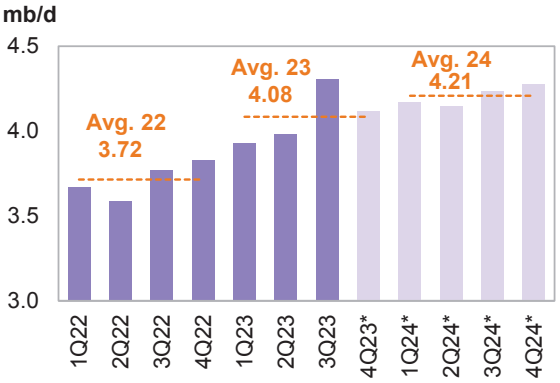
Brazil's crude output in **September** rose by 210 tb/d, m-o-m, to average 3.7 mb/d, mainly due to ramp-ups at four offshore platforms and less maintenance. NGL production, however, was broadly unchanged at an average of 80 tb/d and was expected to remain flat in October. Biofuel output (mainly ethanol) remained mostly unchanged at an average of 678 tb/d, with preliminary data showing a stable trend in October. The country's total liquids production increased by 210 tb/d in September to average 4.4 mb/d. This is the new highest liquids production rate on record, compared with 4.3 mb/d set in July 2023.

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: * 4Q23-4Q24 = Forecast. Sources: ANP and OPEC.*

For **2023**, Brazil's liquids supply, including biofuels, is forecast to rise by 0.4 mb/d, y-o-y, to average 4.1 mb/d, revised up by 25 tb/d from the previous month's assessment due to stronger-than-expected output in September and higher expected production in 4Q23.

By the end of October, the FPSO Almirante Barroso reached its nominal capacity of 150 tb/d on the Buzios field in the presalt Santos basin with three producing wells. The platform reached that figure in about 5 months after first striking oil, which is a presalt record. The achievement of the record shows the high productivity of the field's wells.

For **2024**, Brazil's liquids supply, including biofuels, is forecast to increase by about 120 tb/d, y-o-y, to average 4.2 mb/d. Crude oil output is expected to increase through production ramp-ups in the Buzios (Franco), Mero (Libra NW), Tupi (Lula), Peregrino and Itapu (Florim) fields. Oil project start-ups are expected at Atlanta, Pampo-Enchova Cluster and Vida.

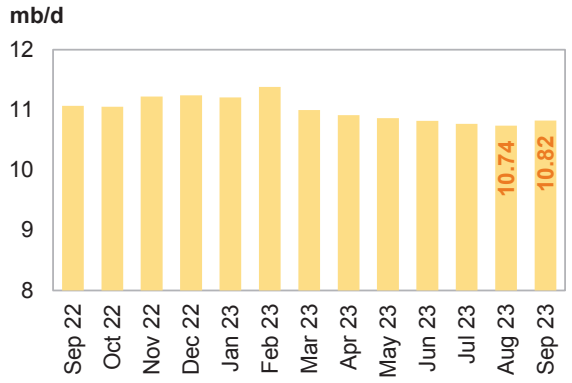
Russia

Russia's liquids production in September rose by about 85 tb/d, m-o-m, to average 10.8 mb/d. This includes 9.5 mb/d of crude oil and 1.3 mb/d of NGLs and condensate.

For **2023**, Russian liquids production is forecast to drop by 0.4 mb/d to an average of 10.6 mb/d, revised up by about 80 tb/d from the previous month's assessment. It is worth noting, that this takes into account all announced production adjustments of the countries in the DoC to the end of 2023.

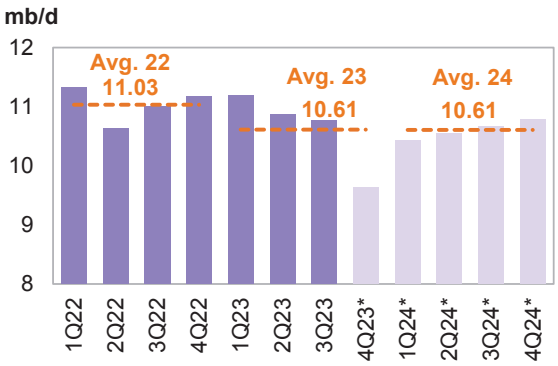
For **2024**, Russian liquids production is forecast to remain unchanged, y-o-y, to average 10.6 mb/d. In addition to project ramp-ups from several oil fields, there will be start-ups by Rosneft, Russneft, Lukoil, Gazprom, Neftisa and TenderResurs. However, overall additional liquids production is expected to be offset by declines at mature fields. It should be noted that the Russian oil forecast is still subject to uncertainty.

Graph 5 - 26: Russia's monthly liquids production



Sources: Nefte Compass and OPEC.

Graph 5 - 27: Russia's quarterly liquids production



*Note: * 4Q23-4Q24 = Forecast.*
Sources: Nefte Compass and OPEC.

Caspian

Kazakhstan & Azerbaijan

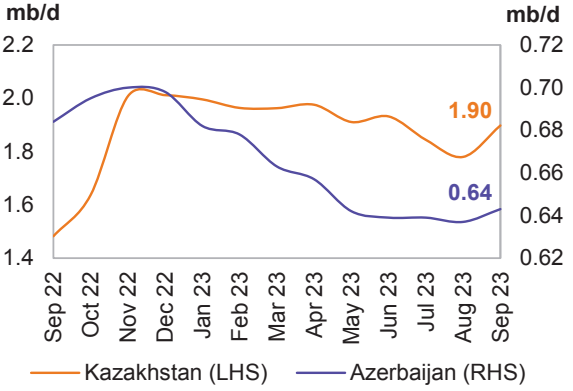
Liquids output in Kazakhstan rose by 118 tb/d, m-o-m, to average 1.9 mb/d in **September**. Crude production was up by 131 tb/d, m-o-m, to average 1.6 mb/d. NGL and condensate output dropped by 13 tb/d, m-o-m, to average 0.3 mb/d.

For **2023**, the liquids supply is forecast to increase by 0.1 mb/d to average 1.9 mb/d, revised up by a minor 5 tb/d from the previous forecast.

Gas condensate production in September was disrupted mainly due to scheduled maintenance at the Karachaganak field, while the Tengiz oil field production recovered in full following its planned maintenance.

For **2024**, the liquids supply is forecast to increase by about 80 tb/d to average 2.0 mb/d, mainly due to production ramp-ups in the Tengiz oil field through an expansion at the Tengizchevroil Future Growth Project (FGP) and wellhead pressure management project. In the latest update, Chevron announced that due to delays and more intensive commissioning, the project will produce about 50 tb/d less as it comes online over 2024 and 2025. Oil production in the Kashagan field and gas condensate output in the Karachaganak field are also expected to rise marginally.

Graph 5 - 28: Caspian monthly liquids production development by selected country



Sources: Nefte Compass, JODI and OPEC.

Azerbaijan's liquids production in **September** rose by a minor 6 tb/d, m-o-m, averaging 0.6 mb/d, which is a drop of 41 tb/d, y-o-y. Crude production averaged 504 tb/d, with NGL output at 139 tb/d, according to official sources.

Azerbaijan's liquids supply for **2023** is forecast to drop by about 20 tb/d to average 0.7 mb/d. This is a downward revision of about 8 tb/d stemming from lower-than-expected production in major oil fields in September. The majority of declines in legacy reservoirs, like the Azeri-Chirag-Guneshli (ACG) oil fields, are expected to be primarily offset by ramp-ups in other fields this year.

Azerbaijan's liquids supply for **2024** is forecast to remain broadly stable at 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 next year with a seventh ACG platform. However, the overall decline rate is expected to offset the planned ramp-ups.

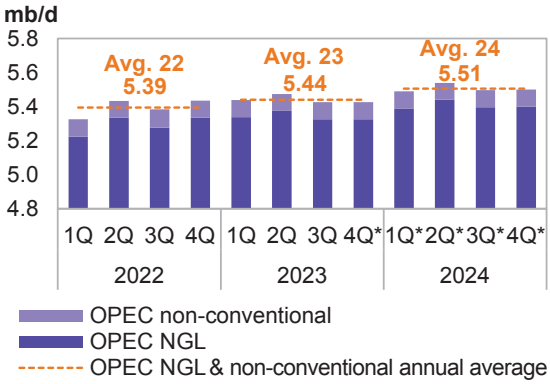
OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids are forecast to expand by about 50 tb/d in **2023** to average 5.4 mb/d. NGL production is projected to grow by 50 tb/d to average 5.3 mb/d, while non-conventional liquids are forecast to remain unchanged at 0.1 mb/d.

Preliminary data shows NGL output in 3Q23 averaging 5.33 mb/d, while non-conventional output is forecast to remain steady at 0.1 mb/d. Taken together, 5.42 mb/d is expected for September, according to preliminary data.

The preliminary **2024** forecast indicates growth of 65 tb/d for an average of 5.5 mb/d. NGL production is projected to grow by 65 tb/d to average 5.4 mb/d, while non-conventional liquids are projected to remain unchanged at 0.1 mb/d.

Graph 5 - 29: OPEC NGLs and non-conventional liquids quarterly production and forecast



*Note: * 4Q23-4Q24 = Forecast. Source: OPEC.*

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

OPEC NGL and non-coventional oils	2022	Change 22/21	2023	Change 23/22	1Q24	2Q24	3Q24	4Q24	2024	Change 24/23
OPEC NGL	**5.29**	*0.11*	**5.34**	*0.05*	5.39	5.44	5.40	5.40	**5.41**	*0.07*
OPEC non-conventional	**0.10**	*0.00*	**0.10**	*0.00*	0.10	0.10	0.10	0.10	**0.10**	*0.00*
Total	**5.39**	***0.11***	**5.44**	***0.05***	**5.49**	**5.54**	**5.50**	**5.50**	**5.51**	***0.07***

Note: 2023 and 2024 = Forecast.
Source: OPEC.

OPEC crude oil production

According to secondary sources, total **OPEC-13 crude oil production** averaged 27.90 mb/d in October 2023, higher by 80 tb/d, m-o-m. Crude oil output increased mainly in Angola, IR Iran and Nigeria, while production in Libya, Saudi Arabia and Kuwait decreased.

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

Secondary sources	2021	2022	1Q23	2Q23	3Q23	Aug 23	Sep 23	Oct 23	Change Oct/Sep
Algeria	913	1,017	1,013	979	952	940	958	961	*3*
Angola	1,122	1,140	1,058	1,104	1,137	1,124	1,121	1,172	*51*
Congo	263	261	268	265	261	261	252	257	*5*
Equatorial Guinea	98	84	53	59	61	69	54	56	*2*
Gabon	182	197	194	206	207	211	206	216	*10*
IR Iran	2,392	2,554	2,572	2,698	2,996	3,050	3,069	3,115	*46*
Iraq	4,046	4,439	4,393	4,147	4,295	4,300	4,314	4,329	*15*
Kuwait	2,419	2,704	2,684	2,585	2,560	2,551	2,577	2,553	*-24*
Libya	1,138	981	1,157	1,164	1,152	1,159	1,169	1,143	*-26*
Nigeria	1,373	1,205	1,347	1,233	1,269	1,249	1,399	1,416	*17*
Saudi Arabia	9,114	10,531	10,358	10,149	8,993	8,920	9,018	8,992	*-26*
UAE	2,727	3,066	3,045	2,941	2,910	2,911	2,924	2,940	*16*
Venezuela	554	683	696	737	761	757	758	751	*-7*
Total OPEC	**26,340**	**28,863**	**28,840**	**28,268**	**27,555**	**27,501**	**27,820**	**27,900**	***80***

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

Direct communication	2021	2022	1Q23	2Q23	3Q23	Aug 23	Sep 23	Oct 23	*Change* Oct/Sep
Algeria	911	1,020	1,011	971	951	939	960	961	*1*
Angola	1,124	1,137	1,046	1,098	1,131	1,129	1,113	1,147	*34*
Congo	267	262	278	280	269	272	252	265	*13*
Equatorial Guinea	93	81	51	59	58	56	55	54	*-1*
Gabon	181	191	201	203	..	..	..	..	..
IR Iran	..	..	..	..	..	..	..	..	..
Iraq	3,971	4,453	4,288	3,959	4,101	4,073	4,138	4,189	*51*
Kuwait	2,415	2,707	2,676	2,590	2,548	2,548	2,548	2,548	*0*
Libya	1,207	..	1,195	1,181	1,187	1,192	1,196	1,188	*-8*
Nigeria	1,323	1,138	1,277	1,144	1,201	1,181	1,347	1,351	*4*
Saudi Arabia	9,125	10,591	10,456	10,124	8,969	8,918	8,975	8,940	*-35*
UAE	2,718	3,064	3,041	2,941	2,904	2,896	2,924	2,892	*-32*
Venezuela	636	716	731	808	797	820	762	786	*24*
Total OPEC	..	..	..	..	..	..	..	..	..

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

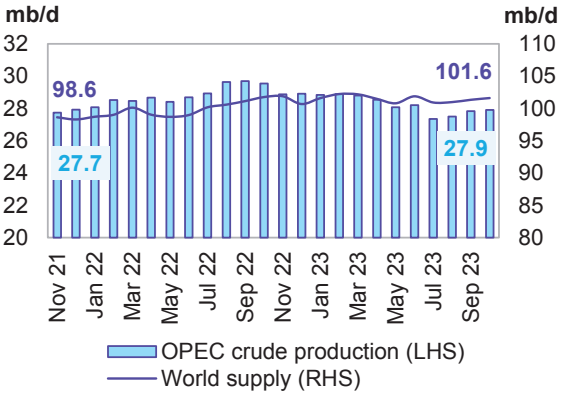
World oil supply

Preliminary data indicates that **global liquids production in October** increased by 0.3 mb/d to average 101.6 mb/d compared with the previous month.

Non-OPEC liquids production (including OPEC NGLs) is estimated to have increased by 0.2 mb/d, m-o-m, in October 2023 to average 73.7 mb/d. This is higher by 1.5 mb/d, y-o-y. Preliminary estimated production increases in October were mainly driven by Norway and OECD Americas, and were partially offset by drops in Russia and Brazil.

The **share of OPEC crude oil in total global production** in October, remained unchanged to stand at 27.5% compared with the previous month. Estimates are based on preliminary data for non-OPEC supply, OPEC NGLs and non-conventional oil, while assessments for OPEC crude production are based on secondary sources.

Graph 5 - 30: OPEC crude production and world oil supply development



Source: OPEC.

Commercial Stock Movements

Preliminary September 2023 data show total OECD commercial oil stocks down by 15.6 mb, m-o-m. At 2,783 mb, they were 33 mb higher than the same time one year ago, but 118 mb lower than the latest five-year average and 184 mb below the 2015–2019 average. Within the components, crude and products stocks fell by 9.3 mb and 6.3 mb, m-o-m, respectively.

OECD commercial crude stocks stood at 1,336 mb in September. This was 13 mb lower than the same time a year ago, 46 mb below the latest five-year average and 99 mb lower than the 2015–2019 average. Total product stocks also fell by 6.3 mb in September to stand at 1,447 mb. This is 46 mb above the same time a year ago, but 72 mb lower than the latest five-year average and 84 mb below the 2015–2019 average.

In terms of days of forward cover, OECD commercial stocks fell by 0.3 days, m-o-m, in September to stand at 60.6 days. This is 0.5 days above the September 2022 level, but 2.4 days lower than the latest five-year average and 1.9 days less than the 2015–2019 average.

Preliminary data for October 2023 showed that total US commercial oil stocks fell by 9.1 mb, m-o-m, to stand at 1,263 mb. This is 32.0 mb, or 2.6%, higher than the same month in 2022, but 20.6 mb, or 1.6%, below the latest five-year average. Crude stocks rose by 7.8 mb, while product stocks fell by 17.0 mb, m-o-m.

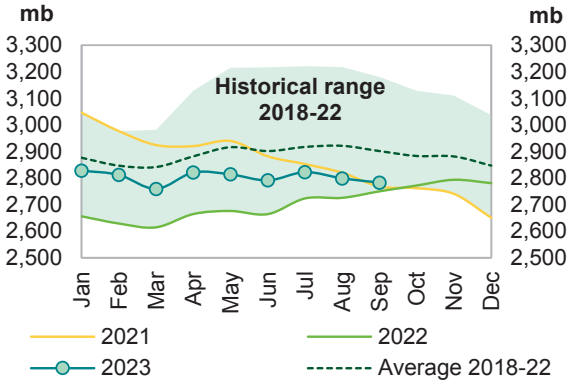
OECD

Preliminary **September 2023** data show **total OECD commercial oil stocks** down by 15.6 mb, m-o-m. At 2,783 mb, they were 33 mb higher than the same time one year ago, but 118 mb lower than the latest five-year average and 184 mb below the 2015–2019 average.

Within the components, crude and products stocks fell by 9.3 mb and 6.3 mb, m-o-m, respectively. Within the OECD regions, total commercial oil stocks in September fell in OECD Americas and OECD Europe, while they increased in OECD Asia Pacific.

OECD commercial **crude stocks** stood at 1,336 mb in September. This was 13 mb lower than the same time a year ago, 46 mb below the latest five-year average and 99 mb lower than the 2015–2019 average. M-o-m, OECD Americas and OECD Europe saw crude stock draws of 3.2 mb and 8.7 mb, respectively, while stocks in OECD Asia Pacific rose by 2.6 mb.

Graph 9 - 1: OECD commercial oil stocks



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

Total product stocks fell by 6.3 mb in September to stand at 1,447 mb. This is 46 mb above the same time a year ago, but 72 mb lower than the latest five-year average and 84 mb below the 2015–2019 average. M-o-m, product stocks in OECD Americas and OECD Asia Pacific witnessed stock draws of 9.3 mb and 0.2 mb, respectively, while OECD Europe product stocks rose by 3.2 mb.

Table 9 - 1: OECD commercial stocks, mb

OECD stocks	Sep 22	Jul 23	Aug 23	Sep 23	Change Sep 23/Aug 23
Crude oil	1,349	1,379	1,345	1,336	*-9.3*
Products	1,401	1,444	1,454	1,447	*-6.3*
Total	**2,750**	**2,823**	**2,799**	**2,783**	***-15.6***
Days of forward cover	**60.1**	**61.1**	**60.8**	**60.6**	***-0.3***

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

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

In terms of **days of forward cover**, OECD commercial stocks fell by 0.3 days, m-o-m, in September to stand at 60.6 days. This is 0.5 days above the September 2022 level, but 2.4 days lower than the latest five-year average and 1.9 days less than the 2015–2019 average.

Within the OECD regions, OECD Americas stood 3.0 days and OECD Europe 1.5 days below the latest five-year average, at 59.6 days and 69.3 days, respectively. OECD Asia Pacific was 0.9 days below the latest five-year average, standing at 48.5 days.

OECD Americas

OECD Americas' total commercial stocks fell by 12.5 mb, m-o-m, in September to settle at 1,486 mb. This is 13 mb higher than the same month in 2022, but 71 mb below the latest five-year average.

Commercial **crude oil stocks** in OECD Americas dropped by 3.2 mb, m-o-m, in September to stand at 727 mb, which is 15 mb lower than in September 2022 and 33 mb below the latest five-year average.

Total product stocks in OECD Americas also fell m-o-m, dropping by 9.3 mb in September to stand at 759 mb. This is 28 mb higher than the same month in 2022, but 38 mb below the latest five-year average. Lower overall consumption in the region was behind the product stock build.

OECD Europe

OECD Europe's total commercial stocks fell by 5.4 mb, m-o-m, in September to settle at 927 mb. This is 9 mb higher than the same month in 2022, but 35 mb below the latest five-year average.

OECD Europe's **commercial crude stocks** dropped by 8.7 mb, m-o-m, to end September at 415 mb. This is 2.4 mb below one year ago and 7.6 mb less than the latest five-year average.

By contrast, Europe's **product stocks** rose by 3.2 mb, m-o-m, to end September at 512 mb. This is 11.0 mb above the same time a year ago, but 27.0 mb below the latest five-year average.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks rose by 2.4 mb, m-o-m, in September to stand at 371 mb. This is 11.6 mb higher than the same time a year ago, but 13.0 mb below the latest five-year average.

OECD Asia Pacific's **crude stocks** rose by 2.6 mb, m-o-m, to end September at 194 mb. This is 4.1 mb higher than one year ago, but 5.8 mb below the latest five-year average.

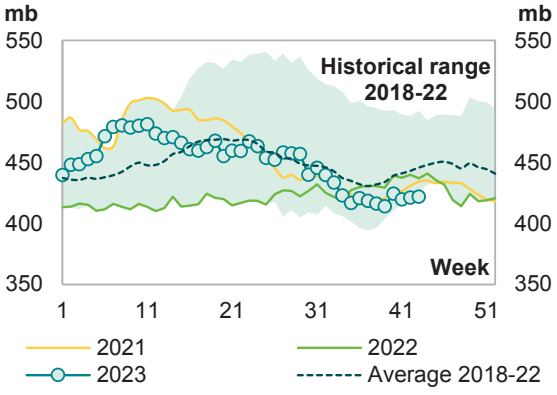
By contrast, OECD Asia Pacific's **product stocks** fell by 0.2 mb, m-o-m, to end September at 176 mb. This is 7.5 mb higher than one year ago, but 7.1 mb below the latest five-year average.

US

Preliminary data for **October 2023** showed that **total US commercial oil stocks** fell by 9.1 mb, m-o-m, to stand at 1,263 mb. This is 32.0 mb, or 2.6%, higher than the same month in 2022, but 20.6 mb, or 1.6%, below the latest five-year average. Crude stocks rose by 7.8 mb, while product stocks fell by 17.0 mb, m-o-m.

US commercial **crude stocks** in October stood at 421.9 mb. This is 17.8 mb, or 4.0%, lower than the same month of 2022 and 27.6 mb, or 6.1%, less than the latest five-year average. The monthly build in crude oil stocks came on the back of a 970 tb/d m-o-m decline in crude runs to a level of 15.64 mb/d.

Graph 9 - 2: US weekly commercial crude oil inventories



Sources: EIA and OPEC.

By contrast, **total product stocks** fell in October to stand at 840.7 mb. This is 49.8 mb, or 6.3%, higher than October 2022 levels and 7.0 mb, or 0.4%, higher than the latest five-year average. The product stock draw can be attributed to higher product consumption.

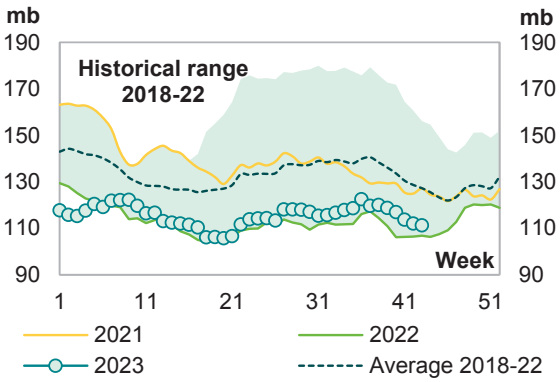
Gasoline stocks fell by 3.5 mb, m-o-m, in October to settle at 223.5 mb. This is 13.1 mb, or 6.2%, higher than the same month of 2022 and 1.1 mb, or 0.5%, above the latest five-year average.

Distillate stocks also fell by 7.5 mb, m-o-m, in October to stand at 111.3 mb. This is 0.8 mb, or 0.75%, higher than the same month of 2022, but 17.6 mb, or 13.6%, below the latest five-year average.

Jet fuel stocks dropped by 2.2 mb, m-o-m, ending October at 40.5 mb. This is 4.0 mb, or 11.0%, higher than the same month in 2022, and 1.2 mb, or 3.0%, higher than the latest five-year average.

Meanwhile, **residual fuel oil stocks** remained unchanged m-o-m in September. At 27.5 mb, this was 2.6 mb, or 8.5%, lower than a year earlier and 2.3 mb, or 7.8%, below the latest five-year average.

Graph 9 - 3: US weekly distillate inventories



Sources: EIA and OPEC.

Table 9 - 2: US commercial petroleum stocks, mb

US stocks	Oct 22	Aug 23	Sep 23	Oct 23	Change Oct 23/Sep 23
Crude oil	**439.7**	**417.3**	**414.1**	**421.9**	***7.8***
Gasoline	210.4	218.9	227.0	223.5	*-3.5*
Distillate fuel	110.5	116.9	118.8	111.3	*-7.5*
Residual fuel oil	30.0	26.0	27.5	27.5	*0.0*
Jet fuel	36.5	42.6	42.7	40.5	*-2.2*
Total products	**790.8**	**840.9**	**857.6**	**840.7**	***-17.0***
Total	**1,230.5**	**1,258.2**	**1,271.7**	**1,262.6**	***-9.1***
SPR	**398.6**	**350.3**	**351.3**	**351.3**	***0.0***

Sources: EIA and OPEC.

Japan

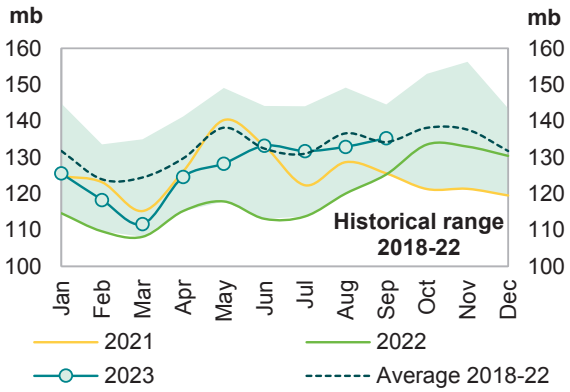
In **Japan**, **total commercial oil stocks** in **September** rose by 2.4 mb, m-o-m, to settle at 135.3 mb. This is 10.0 mb, or 8.0%, higher than the same month in 2022 and 1.1 mb, or 0.8%, above the latest five-year average. Crude stocks rose by 2.6 mb m-o-m, while product stocks fell by 0.2 mb.

Japanese **commercial crude oil stocks** rose by 2.6 mb, m-o-m, in September to stand at 63.0 mb. This is 4.9 mb, or 7.3%, higher than the same month of 2022 and 0.9 mb, or 1.2%, above the latest five-year average.

Gasoline stocks rose m-o-m by 0.3 mb to stand at 10.0 mb in September. This is 0.2 mb, or 2.2%, higher than a year earlier, but 0.4 mb, or 4.1%, lower than the latest five-year average. The build came on the back of lower domestic gasoline sales, which declined by 11.0%, m-o-m.

Distillate stocks also rose by 1.9 mb, m-o-m, to end September at 30.5 mb. This is 3.5 mb, or 13.0%, above the same month of 2022, but 0.1 mb, or 0.3%, below the latest five-year average. Within distillate components, kerosene stocks rose by 21.7%, while jet fuel and gasoil stocks fell by 1.2% and 11.9%, respectively.

Graph 9 - 4: Japan's commercial oil stocks



Sources: METI and OPEC.

By contrast, **total residual fuel oil stocks** fell m-o-m by 0.7 mb to end September at 13.4 mb. This is 1.9 mb, or 16.8%, higher than the same month of 2022 and 1.1 mb, or 9.1%, above the latest five-year average. Within the components, fuel oil A stocks rose by 2.2%, while fuel oil BC stocks fell by 7.3%, m-o-m.

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

Japan's stocks	Sep 22	Jul 23	Aug 23	Sep 23	Change Sep 23/Aug 23
Crude oil	**67.5**	**77.5**	**69.7**	**72.4**	***2.6***
Gasoline	9.8	8.9	9.7	10.0	*0.3*
Naphtha	9.5	9.2	10.8	9.0	*-1.8*
Middle distillates	27.0	23.8	28.7	30.5	*1.9*
Residual fuel oil	11.5	12.4	14.1	13.4	*-0.6*
Total products	**57.8**	**54.3**	**63.2**	**63.0**	***-0.2***
Total**	**125.3**	**131.8**	**132.9**	**135.3**	***2.4***

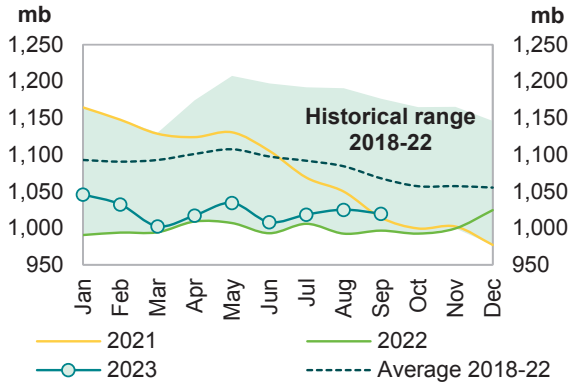
*Note: * At the end of the month. ** Includes crude oil and main products only.*
Sources: METI and OPEC.

EU-14 plus UK and Norway

Preliminary data for **September** showed that **total European commercial oil stocks** fell by 5.4 mb m-o-m to stand at 1,020 mb. At this level, they were 23.0 mb, or 2.3%, above the same month of 2022, but 48.1 mb, or 4.5%, lower than the latest five-year average. Crude stocks fell by 8.7 mb, while product stocks rose by 3.2 mb.

European **crude stocks** stood at 436.4 mb in September. This is 4.4 mb, or 1.0%, higher than the same month in 2022, but 23.3 mb, or 5.1%, below the latest five-year average. The draw in crude oil stocks came despite lower refinery throughput in the EU-14, as well as the UK and Norway, which fell by around 370 tb/d, m-o-m, to stand at 9.37 mb/d.

Graph 9 - 5: EU-14 plus UK and Norway total oil stocks



Sources: Argus, Euroilstock and OPEC.

By contrast, **total European product stocks** rose by 3.2 mb, m-o-m, to end September at 583.2 mb. This is 18.6 mb, or 3.3%, higher than the same month of 2022, but 24.8 mb, or 4.1%, below the latest five-year average. The build could be attributed to lower demand in the region.

Gasoline stocks rose by 2.3 mb, m-o-m, in September to stand at 105.9 mb. At this level, they were 0.1mb, or 0.1%, lower than the same time in 2022, but 0.3 mb, or 0.3%, above the latest five-year average.

Middle distillate stocks rose by 1.9 mb, m-o-m, in September to stand at 391.1 mb. This is 22.8 mb, or 6.2%, higher than the same month in 2022, but 20.4 mb, or 4.9%, lower than the latest five-year average.

By contrast, **residual fuel stocks** fell by 0.4 mb, m-o-m, in September to stand at 58.6 mb. This is 1.0 mb, or 1.7%, lower than the same month in 2022 and 4.2 mb, or 6.7%, below the latest five-year average.

Naphtha stocks also fell by 0.5 mb, m-o-m, in September, ending the month at 27.5 mb. This is 3.1 mb, or 10.1%, lower than the September 2022 level and 0.5 mb, or 1.8%, less than the latest five-year average.

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

EU stocks	Sep 22	Jul 23	Aug 23	Sep 23	Change Sep 23/Aug 23
Crude oil	**431.9**	**438.7**	**445.1**	**436.4**	***-8.7***
Gasoline	106.0	104.8	103.6	105.9	*2.3*
Naphtha	30.6	28.5	28.1	27.5	*-0.5*
Middle distillates	368.3	386.4	389.3	391.1	*1.9*
Fuel oils	59.7	60.0	59.0	58.6	*-0.4*
Total products	**564.6**	**579.7**	**580.0**	**583.2**	***3.2***
Total	**996.6**	**1,018.4**	**1,025.0**	**1,019.6**	***-5.4***

Sources: Argus, Euroilstock and OPEC.

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

World oil demand and supply balance	2020	2021	2022	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024
World demand													
Americas	22.49	24.32	24.87	24.52	25.21	25.35	24.94	25.01	24.70	25.38	25.55	25.10	25.19
of which US	*18.35*	*20.03*	*20.16*	*19.92*	*20.50*	*20.47*	*20.05*	*20.24*	*20.06*	*20.64*	*20.62*	*20.19*	*20.38*
Europe	12.41	13.19	13.51	13.11	13.54	13.79	13.37	13.45	13.16	13.60	13.86	13.41	13.51
Asia Pacific	7.16	7.34	7.38	7.81	6.96	7.10	7.65	7.38	7.84	6.98	7.13	7.65	7.40
Total OECD	**42.06**	**44.85**	**45.75**	**45.43**	**45.71**	**46.23**	**45.96**	**45.84**	**45.70**	**45.96**	**46.54**	**46.16**	**46.09**
China	13.94	15.10	14.95	15.73	16.06	16.27	16.29	16.09	16.30	16.52	16.89	16.96	16.67
India	4.51	4.77	5.14	5.40	5.40	5.17	5.50	5.37	5.63	5.64	5.40	5.69	5.59
Other Asia	8.13	8.67	9.06	9.34	9.48	9.03	9.18	9.26	9.60	9.73	9.39	9.54	9.57
Latin America	5.90	6.25	6.44	6.60	6.70	6.73	6.68	6.68	6.79	6.88	6.95	6.84	6.87
Middle East	7.45	7.79	8.30	8.63	8.32	8.86	8.73	8.64	8.91	8.76	9.41	8.98	9.02
Africa	4.08	4.22	4.40	4.59	4.24	4.30	4.88	4.50	4.70	4.42	4.48	5.01	4.65
Russia	3.39	3.62	3.70	3.83	3.59	3.74	4.01	3.79	3.89	3.70	3.89	4.08	3.89
Other Eurasia	1.07	1.21	1.15	1.24	1.21	1.02	1.23	1.17	1.27	1.24	1.08	1.28	1.22
Other Europe	0.70	0.75	0.77	0.79	0.77	0.75	0.83	0.79	0.81	0.78	0.77	0.84	0.80
Total Non-OECD	**49.16**	**52.38**	**53.90**	**56.15**	**55.76**	**55.88**	**57.32**	**56.28**	**57.90**	**57.68**	**58.25**	**59.22**	**58.27**
(a) Total world demand	**91.22**	**97.23**	**99.66**	**101.58**	**101.47**	**102.11**	**103.28**	**102.11**	**103.60**	**103.64**	**104.79**	**105.38**	**104.36**
Y-o-y change	***-9.12***	***6.01***	***2.43***	***1.91***	***3.01***	***2.72***	***2.18***	***2.46***	***2.03***	***2.17***	***2.68***	***2.10***	***2.25***
Non-OPEC liquids production													
Americas	24.87	25.46	26.91	27.90	28.18	28.86	28.36	28.33	28.79	28.83	29.30	29.61	29.13
of which US	*17.76*	*18.06*	*19.28*	*20.10*	*20.70*	*21.05*	*20.44*	*20.58*	*20.84*	*21.06*	*21.33*	*21.49*	*21.18*
Europe	3.92	3.79	3.58	3.69	3.65	3.52	3.73	3.65	3.85	3.73	3.68	3.82	3.77
Asia Pacific	0.52	0.51	0.48	0.45	0.45	0.45	0.47	0.46	0.46	0.43	0.44	0.43	0.44
Total OECD	**29.31**	**29.77**	**30.97**	**32.04**	**32.27**	**32.84**	**32.56**	**32.43**	**33.11**	**33.00**	**33.42**	**33.86**	**33.35**
China	4.16	4.32	4.48	4.63	4.63	4.49	4.49	4.56	4.58	4.57	4.54	4.54	4.56
India	0.78	0.78	0.77	0.76	0.78	0.78	0.78	0.78	0.79	0.79	0.79	0.78	0.79
Other Asia	2.53	2.42	2.30	2.31	2.26	2.24	2.38	2.30	2.28	2.25	2.23	2.23	2.25
Latin America	6.02	5.96	6.34	6.69	6.76	7.06	6.92	6.86	7.07	7.10	7.23	7.30	7.18
Middle East	3.15	3.19	3.29	3.27	3.29	3.27	3.30	3.28	3.33	3.32	3.31	3.32	3.32
Africa	1.41	1.34	1.29	1.24	1.27	1.27	1.30	1.27	1.26	1.27	1.32	1.35	1.30
Russia	10.54	10.80	11.03	11.19	10.86	10.77	9.63	10.61	10.43	10.55	10.67	10.78	10.61
Other Eurasia	2.91	2.93	2.83	2.99	2.93	2.82	2.99	2.93	3.01	3.00	2.99	3.03	3.01
Other Europe	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Total Non-OECD	**31.64**	**31.85**	**32.44**	**33.21**	**32.89**	**32.80**	**31.89**	**32.69**	**32.85**	**32.95**	**33.18**	**33.43**	**33.11**
Total Non-OPEC production	60.95	61.61	63.41	65.25	65.16	65.64	64.45	65.12	65.96	65.95	66.60	67.29	66.46
Processing gains	2.16	2.29	2.40	2.47	2.47	2.47	2.47	2.47	2.52	2.52	2.52	2.52	2.52
Total Non-OPEC liquids production	**63.11**	**63.90**	**65.81**	**67.72**	**67.63**	**68.11**	**66.92**	**67.59**	**68.48**	**68.47**	**69.12**	**69.81**	**68.97**
OPEC NGL + non-conventional oils	5.17	5.28	5.39	5.44	5.47	5.43	5.43	5.44	5.49	5.54	5.50	5.50	5.51
(b) Total non-OPEC liquids production and OPEC NGLs	**68.27**	**69.18**	**71.21**	**73.15**	**73.10**	**73.53**	**72.35**	**73.03**	**73.97**	**74.01**	**74.62**	**75.31**	**74.48**
Y-o-y change	***-2.54***	***0.91***	***2.03***	***2.21***	***2.79***	***2.31***	***0.01***	***1.83***	***0.82***	***0.91***	***1.08***	***2.96***	***1.45***
OPEC crude oil production (secondary sources)	25.72	26.34	28.86	28.84	28.27	27.56							
Total liquids production	94.00	95.52	100.07	101.99	101.37	101.09							
Balance (stock change and miscellaneous)	2.78	-1.71	0.41	0.42	-0.10	-1.02							
OECD closing stock levels, *mb*													
Commercial	3,037	2,651	2,781	2,759	2,792	2,783							
SPR	1,541	1,484	1,214	1,217	1,206	1,209							
Total	**4,578**	**4,135**	**3,995**	**3,976**	**3,997**	**3,993**							
Oil-on-water	1,148	1,202	1,399	1,413	1,302	1,220							
Days of forward consumption in OECD, *days*													
Commercial onland stocks	68	58	61	60	60	61							
SPR	34	32	26	27	26	26							
Total	**102**	**90**	**87**	**87**	**86**	**87**							
Memo items													
(a) - (b)	**22.95**	**28.05**	**28.45**	**28.42**	**28.37**	**28.58**	**30.93**	**29.08**	**29.63**	**29.63**	**30.17**	**30.07**	**29.88**

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

Source: OPEC.

https://www.iea.org/reports/oil-market-report-november-2023

Oil Market Report - November 2023

Highlights

- Chinese oil demand rose to another record high of 17.1 mb/d in September, underpinning global growth. China is set to account for 1.8 mb/d of the total 2.4 mb/d increase that lifts demand to 102 mb/d in 2023. Overall growth is expected to slow to 930 kb/d in 2024. In the OECD, economic headwinds are increasingly apparent, with this year's slim demand gains giving way to a contraction in 2024.

- World oil output increased by 320 kb/d in October to 102 mb/d. Growth in the United States and Brazil is outperforming forecasts, helping to propel global supply higher by 1.7 mb/d to a record 101.8 mb/d in 2023. Non-OPEC+ will again drive overall growth in 2024, projected at 1.6 mb/d. There has been no material impact on oil supply flows from the war between Israel and Hamas that started in early October.

- Refinery margins collapsed in October from the near-record levels achieved during 3Q23. Weaker gasoline cracks drove much of the decline, but still-elevated middle distillate cracks ensured margins remain above the five-year average. Global crude runs are expected to rise by 1.9 mb/d in 2023 and 1 mb/d in 2024, to average 82.6 mb/d and 83.6 mb/d, respectively.

- Russian oil exports eased by 70 kb/d in October, to 7.5 mb/d, as higher crude oil shipments failed to offset a decline in product flows. Estimated export revenues fell by $25 million to $18.34 billion as lower international oil prices more than offset a narrowing discount for Russian grades versus North Sea Dated. Russian crude and product prices, apart from gasoline and VGO, were above the G7 Price Cap.

- Global observed inventories rose by 9.9 mb in September but remain near historical lows. Oil on water rebounded by 25.3 mb and OECD stocks inched up by 2.9 mb while non-OECD inventories declined by 18.3 mb. In 3Q23, crude oil stocks plunged by a massive 141.4 mb and oil product built by 112.7 mb as supply cuts by OPEC+ countries coincided with increased refinery activity.

- ICE Brent futures slumped by $8/bbl during October, as the macroeconomic outlook deteriorated and supply fears following the Hamas attack on Israel subsided. Crude's forward structure eased in tandem with flat prices, as contango returned to prompt WTI time spreads for the first time since July. The price rout continued into early November. At the time of writing, Brent was trading at $82/bbl.

Exceeding expectations

The market rally that pushed benchmark oil prices towards triple digits in September reversed sharply in October, despite continued tight crude supplies and an intensifying conflict in the Middle East. In early November, ICE Brent futures plunged to a four-month low around $80/bbl.

The abrupt sell-off came as market concerns shifted from supply risks to the global economy and oil demand. In addition, front month paper market trade has moved to 1Q24 when markets appear more or less in surplus, adding to the downward pressure on prices. While this more bearish mood may be justified, world oil demand continues to exceed expectations. In this Report, we have slightly revised up our 2023 growth forecast to 2.4 mb/d, as US deliveries proved more resilient than indicated by preliminary data and Chinese oil demand in September set another all-time high above 17 mb/d, fuelled by a booming petrochemical sector. Those gains have come to the detriment of petrochemical producers elsewhere, most notably in Europe and advanced economies in Asia and Oceania. Indeed, the two regions saw 3Q23 oil demand slump by a combined 560 kb/d year-on-year. This year's surge

will take world oil demand to 102 mb/d before growth eases to 930 kb/d in 2024 as the last phase of the pandemic economic rebound dissipates and as advancing energy efficiency gains, expanding electric vehicle fleets and structural factors reassert themselves. Despite growth that is almost two-thirds lower than this year's increase, global oil demand is set to rise to a record annual high of 102.9 mb/d in 2024.

World oil supply growth is also exceeding expectations. Fears that the war between Israel and Hamas would escalate into a wider regional conflict, disrupting oil supply flows, have yet to materialise. Barring large unforeseen outages, world oil supply is firmly on an upward trajectory, with October output up 320 kb/d m-o-m. Record output from the United States, Brazil and Guyana underpin this year's 1.7 mb/d increase in global oil supplies, to a record 101.8 mb/d. In 2024, non-OPEC+ producers will continue to lead global growth, projected at 1.6 mb/d, to an unprecedented 103.4 mb/d. A temporary easing of US sanctions on Venezuela in late October is expected to have only a marginal impact on supply, as production increases from the country's battered oil sector will take time and investment.

Meanwhile, top oil exporters Saudi Arabia and Russia confirmed in early November they would continue with their additional voluntary output cuts until the end of the year. Those cuts look set to keep the oil market in a significant deficit through year-end, with the OPEC+ alliance pumping 900 kb/d below the demand for its crude. Global observed crude oil inventories fell by a massive 140 mb over the third quarter to a fresh low, according to the available data, as refineries boosted activity ahead of seasonal maintenance. With demand growth set to slow, the market could shift into surplus at the start of 2024. For now, with demand still exceeding available supplies heading into the Northern Hemisphere winter, market balances will remain vulnerable to heightened economic and geopolitical risks – and further volatility ahead.

OPEC+ crude oil production[1]

million barrels per day

	Sep 2023 Supply	Oct 2023 Supply	Oct Prod vs Target	Oct-2023 Target	Sustainable Capacity[2]	Eff Spare Cap vs Oct[3]
Algeria	0.95	0.96	0.0	0.96	1.0	0.04
Angola	1.11	1.15	-0.31	1.46	1.11	-0.04
Congo	0.25	0.26	-0.05	0.31	0.27	0.01
Equatorial Guinea	0.06	0.06	-0.06	0.12	0.06	0.0
Gabon	0.22	0.22	0.05	0.17	0.21	-0.01
Iraq	4.34	4.38	0.16	4.22	4.75	0.37
Kuwait	2.59	2.57	0.02	2.55	2.83	0.26
Nigeria	1.35	1.35	-0.39	1.74	1.34	-0.01
Saudi Arabia	9.03	9.01	0.03	8.98	12.16	3.15
UAE	3.25	3.25	0.38	2.88	4.2	0.95
Total OPEC-10	**23.15**	**23.21**	**-0.17**	**23.38**	**27.94**	**4.79**
Iran[4]	3.14	3.1			3.8	
Libya[4]	1.15	1.13			1.22	0.09
Venezuela[4]	0.77	0.77			0.8	0.03
Total OPEC	**28.21**	**28.21**			**33.76**	**4.91**
Azerbaijan	0.49	0.49	-0.19	0.68	0.54	0.05
Kazakhstan	1.62	1.63	0.08	1.55	1.67	0.04
Mexico[5]	1.66	1.67			1.68	0.01
Oman	0.8	0.8	0.0	0.8	0.85	0.05
Russia	9.5	9.53	0.08	9.45	9.98	
Others [6]	0.88	0.85	-0.2	1.06	0.87	0.03
Total Non-OPEC	**14.95**	**14.98**	**-0.24**	**13.54**	**15.58**	**0.18**
OPEC+ 19 in cut deal[4]	**36.44**	**36.51**	**-0.4**	**36.92**	**41.84**	**4.96**
Total OPEC+	**43.16**	**43.19**			**49.34**	**5.09**

1. Excludes condensates. 2. Capacity levels can be reached within 90 days and sustained for an extended period. 3. Excludes shut in Iranian, Russian crude. 4. Iran, Libya, Venezuela exempt from cuts. 5. Mexico excluded from OPEC+ compliance. Only cut in May, June 2020. 6. Bahrain, Brunei, Malaysia, Sudan and South Sudan.

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

2023-11-14 09:00:00.2 GMT

By Kristian Siedenburg

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

	4Q 2024	3Q 2024	2Q 2024	1Q 2024	4Q 2023	3Q 2023	2Q 2023	1Q 2023	2024	2023
					Demand					
Total Demand	104.1	103.5	102.4	101.5	102.8	103.0	101.7	100.3	102.9	102.0
Total OECD	45.9	45.6	45.3	45.2	46.2	46.1	45.7	45.4	45.5	45.8
Americas	24.9	25.1	24.9	24.4	25.1	25.5	25.2	24.5	24.8	25.1
Europe	13.3	13.4	13.4	13.1	13.4	13.6	13.5	13.1	13.3	13.4
Asia Oceania	7.7	7.1	7.0	7.7	7.6	7.1	7.0	7.8	7.4	7.4
Non-OECD countries	58.2	57.9	57.1	56.3	56.6	56.9	56.0	54.9	57.4	56.1
FSU	5.0	5.0	4.8	4.9	5.0	5.1	4.9	4.9	4.9	5.0
Europe	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
China	17.3	17.3	17.1	16.6	16.6	16.9	16.6	15.6	17.1	16.4
Other Asia	15.1	14.4	14.7	14.7	14.7	14.1	14.4	14.4	14.7	14.4
Americas	6.5	6.5	6.4	6.2	6.4	6.4	6.3	6.2	6.4	6.3
Middle East	9.0	9.5	9.1	8.9	8.9	9.5	8.9	8.8	9.1	9.0
Africa	4.5	4.3	4.3	4.3	4.2	4.1	4.2	4.3	4.4	4.2
					Supply					
Total Supply	n/a	n/a	n/a	n/a	n/a	101.6	101.9	101.9	n/a	n/a
Non-OPEC	69.0	69.3	68.9	68.2	68.2	68.0	67.5	67.0	68.9	67.7
Total OECD	31.5	31.4	31.3	31.1	31.1	30.8	30.5	30.4	31.3	30.7
Americas	27.8	27.8	27.6	27.4	27.6	27.4	26.9	26.7	27.7	27.1
Europe	3.2	3.1	3.2	3.2	3.1	3.0	3.2	3.3	3.2	3.1
Asia Oceania	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Non-OECD	31.9	31.8	31.8	31.8	31.5	31.2	31.3	31.6	31.8	31.4
FSU	13.8	13.6	13.7	13.7	13.7	13.6	13.8	14.2	13.7	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	4.4	4.2	4.2	4.3	4.3	4.3	4.3
Other Asia	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.6
Americas	6.7	6.7	6.7	6.7	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	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.3
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	n/a	33.6	34.4	34.9	n/a	n/a
Crude	n/a	n/a	n/a	n/a	n/a	28.0	28.9	29.4	n/a	n/a
Natural gas liquids NGLs	5.6	5.6	5.6	5.6	5.6	5.6	5.5	5.5	5.6	5.5
Call on OPEC crude and stock change *	29.4	28.6	27.8	27.7	29.0	29.4	28.7	27.9	28.4	28.7

* 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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Mark Evans

IEA: October Crude Oil Production in OPEC Countries (Table)
2023-11-14 09:00:00.4 GMT
By Kristian Siedenburg
(Bloomberg) -- Following is a summary of oil production in OPEC countries from the International Energy Agency in Paris:

	Oct. 2023	Sept. 2023	Oct. MoM
Total OPEC	28.21	28.21	0.00
Total OPEC10	23.21	23.15	0.06
Algeria	0.96	0.95	0.01
Angola	1.15	1.11	0.04
Congo	0.26	0.25	0.01
Equatorial Guinea	0.06	0.06	0.00
Gabon	0.22	0.22	0.00
Iraq	4.38	4.34	0.04
Kuwait	2.57	2.59	-0.02
Nigeria	1.35	1.35	0.00
Saudi Arabia	9.01	9.03	-0.02
UAE	3.25	3.25	0.00
Iran	3.10	3.14	-0.04
Libya	1.13	1.15	-0.02
Venezuela	0.77	0.77	0.00

NOTE: Figures are in million of barrels per day. Monthly level change calculated by Bloomberg. Production data excludes condensates.
OPEC10 excludes Iran, Libya and Venezuela.
SOURCE: International Energy Agency

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IEA REPORT WRAP: Oil Market Less Tight Than Expected on Supply
2023-11-14 09:45:20.866 GMT
By Rachel Graham
(Bloomberg) -- The following stories were published Tuesday from the IEA's monthly Oil Market Report:
SUPPLY/DEMAND:
* Oil Markets Less Tight Than Expected as Supply Climbs
** Deficit in fourth quarter shrinks 30% to 900,000 barrels a day

* Oil Demand Growth Set to 'Decelerate Sharply' Next Year
* IEA World Oil Supply/Demand Key Revisions
** In 2024, oil demand growth to slow to 930k b/d
*** 2023 estimate raised by 110k b/d from last monthly report to 2.4m
*** Of that, China will account for 1.8m b/d
*** China's oil demand rose to record 17.1m b/d in September
* IEA World Oil Supply and Demand Forecasts by Region (Table)
** 2024 oil supply to rise by 1.6m b/d to record 103.4m, driven by non-OPEC+ producers
** Record output from the US, Brazil and Guyana underpin this year's 1.7m b/d increase in global oil supply

OTHER:
* OPEC+ Crude Output Rose Slightly in Oct. on Iraq, Russia
* October Crude Oil Production in OPEC Countries (Table)
* Russia Oil-Export Revenues Drop on Sanctions, Cheaper Crude
* Oil Refining Margins Return to Levels Seen in 2Q
* North Sea Crudes Fall on Narrowing Margins, Rising Supply
* European Naphtha Demand Seen Hitting Lowest Since 1975

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IEA World Oil Supply/Demand Key Forecasts
2023-11-14 09:00:00.5 GMT
By Kristian Siedenburg
(Bloomberg) -- World oil demand 2024 forecast was revised to 102.9m b/d from 102.7m b/d in Paris-based Intl Energy Agency's latest monthly report.
* 2023 world demand was revised to 102.0 from 101.9m b/d
* Demand change in 2024 est. 0.9% y/y or 0.9m b/d
* Non-OPEC supply 2024 was revised to 68.9m b/d from 68.8m b/d
* Call on OPEC crude 2024 was revised to 28.4m b/d from 28.3m b/d
* Call on OPEC crude 2023 was revised to 28.7 m b/d from 28.8m b/d
** OPEC crude production in Oct. was unchanged at 28.21m b/d
* Detailed table: FIFW NSN S43R9QGQD79C <GO>
* NOTE: Fcasts based off IEA's table providing one decimal point

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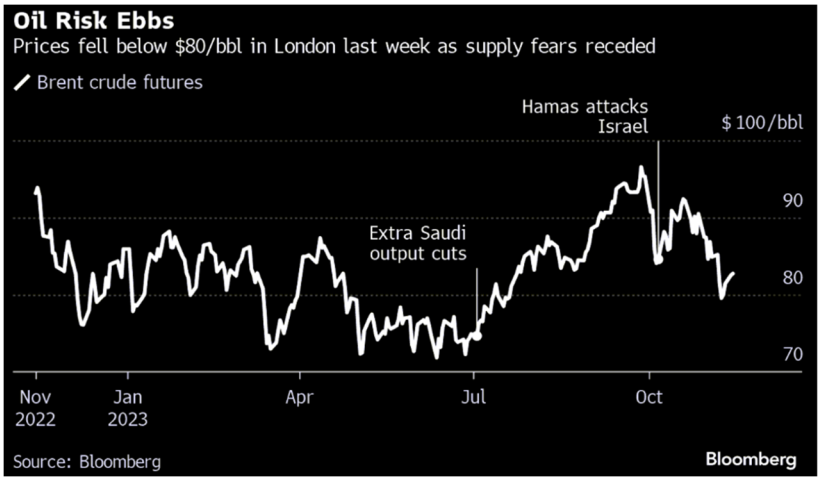
Oil Markets Less Tight Than Expected as Supply Climbs, IEA Says
2023-11-14 09:00:00.13 GMT
By Grant Smith
(Bloomberg) -- Global oil markets won't be as tight as expected this quarter, as upward revisions to demand are outpaced by upgrades to supplies, the International Energy Agency said.
The IEA boosted forecasts for world fuel consumption this year on surprising strength in China, and still anticipates a supply shortfall during the fourth quarter. But it will be roughly 30% smaller than previously projected, at about 900,000 barrels a day.
"World oil demand continues to exceed expectations," the Paris-based agency said in its latest monthly report. Yet "world oil supply growth is also exceeding expectations" as "production growth in the US and Brazil has been outperforming forecasts."
The softer outlook fits with a retreat in prices, which briefly slumped to a three-month below $80 a barrel in London last week. Fears have abated that conflict in the Middle East will disrupt oil exports and worsen inflationary pressures, while the economic backdrop in China has darkened.



World oil demand will climb by 2.4 million barrels a day

this year — a shade higher than projected last month — to a record annual average of 102 million barrels a day, the IEA said. Record Chinese consumption will account for about 75% of the increase, while US fuel use drove the upgrade to the forecast.

Oil markets remain tight, with world inventories experiencing “massive” drop last quarter equivalent to about 1.5 million barrels a day, according to the report. Yet in the final three months of the year, the upward revision to demand is only half of the 400,000 barrel-a-day boost to supplies from outside OPEC, whittling down the resulting deficit to less than 1 million barrels a day.

That’s less than a third of the unprecedented shortfall predicted on Monday by the Organization of Petroleum Exporting Countries, which has slashed its own production in a bid to shore up oil prices and boost revenue for its members.

Group leader Saudi Arabia has deepened its output cuts by 1 million barrels a day, and several analysts predict it will continue the restraint into next year, potentially announcing the move when the OPEC+ alliance meets on Nov. 26. Riyadh has blamed the recent decline in crude prices on a “ploy” by speculators.

The IEA sees world oil markets tipping back into a supply surplus in the first half of 2024, amid a dramatic 60% slowdown in the pace of demand growth. Consumption will increase just 930,000 barrels a day next year, with the post-pandemic rebound exhausted and energy use growing more efficient. That’s less than half the increase in consumption predicted by OPEC.

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Oil Demand Growth Set to ‘Decelerate Sharply’ Next Year: IEA

2023-11-14 09:00:00.14 GMT

By Julian Lee and Jack Wittels

(Bloomberg) -- “Global oil demand growth is expected to decelerate sharply” next year after being supported by “a narrow set of non-OECD countries, led by China” in 2023, the International Energy Agency says in its latest monthly report.

* “Sustained macroeconomic headwinds will become increasingly apparent” with demand growth slipping to 930k b/d in 2024

** 2023 demand growth revised up by 110k b/d from last month to

2.4m b/d, with three-quarters of that coming from China
* Chinese oil demand hit a new high in September, the fifth record set this year
** Total oil use is expected to rise by 1.8m b/d this year, before growth slows to 640 kb/d in 2024
** A “slowdown in GDP growth will weigh on consumption for most products”
** This year has seen a “release of pent-up demand” after travel restrictions were eased
* US oil demand set to rise by 140k b/d in 2023 before falling by 220k b/d in 2024
** Jet/kerosene and LPG/ethane are both set to contribute substantially to annual gains this year
* OECD Europe oil demand set to drop by 100k b/d this year
** That’s despite a 140k b/d rise in jet/kerosene demand
** IEA expects a further fall of 90k b/d in 2024
** In 3Q of this year, deliveries dropped by 460k b/d y/y
*** Gasoil deliveries fell by about 400k b/d

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OPEC+ Crude Output Rose Slightly in Oct. on Iraq, Russia: IEA
2023-11-14 09:00:00.6 GMT
By James Herron
(Bloomberg) -- OPEC+ crude oil production rose by 30k b/d to 43.19m b/d in October as Angola, Iraq and Russia boosted output, according to the International Energy Agency’s monthly report.
* Saudi production fell 20k b/d to 9.01m b/d as lower refinery throughput offset higher crude exports
* Iraq added 40k b/d as more volumes from the north, which have been affected by the shutdown of the pipeline through Turkey, moved into the domestic market. Its production of 4.38m b/d was 160k b/d above the country’s target
* Russia pumped an extra 30k b/d in October, bringing total crude output to 9.53m b/d
* Angola’s production climbed by 40k b/d to 1.15m b/d
* The bloc’s spare capacity was about 5.1m b/d, the highest non-pandemic surplus since 2010

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Russia Oil-Export Revenues Ease on Sanctions, Cheaper Crude: IEA
2023-11-14 09:00:21.203 GMT
By Bloomberg News
(Bloomberg) -- Russia's revenues from oil exports in October eased from a previous peak, as global crude prices dropped and the US imposed sanctions against vessels violating a Western price-cap, according to the International Energy Agency.
The nation received $18.34 billion from crude oil and petroleum-product exports last month, down $25 million from September "as lower international oil prices more than offset a narrowing discount for Russian grades," the Paris-based agency said in its oil-market report.
"The first US Treasury sanctions imposed under the G-7 price cap contributed to slightly weaker Russian crude prices in the latter half of the month due to rising shipping costs," it added.
Still, Russia's monthly earnings from selling oil abroad remained near the highest level since October 2022.

Petrodollars are a key source of revenue for the Russian budget, which burdened by massive spending on the war in Ukraine and the need to maintain expenditures ahead of presidential elections in March. In recent months, oil and gas revenues have

grown amid higher prices for Russian exports, narrowing the nation's budget deficit and giving it more financial flexibility for the war.

READ: Russia's Falling Crude Discount = 2% of GDP Budget Deficit

The Group of Seven industrialized countries have set price caps on Russian crude oil and petroleum products in an effort to limit the Kremlin's budget revenues without harming the global oil market. Cargoes sold at a price above the thresholds aren't eligible for services such as shipping and insurance from Western nations.

On Oct. 12, the US Treasury also imposed sanctions on two oil tankers and their registered Turkish and UAE-based owners, as both vessels used US-based service providers to transport Russian oil price above the cap.

As a result, by end-October freight costs for Russian crude shipped from the Baltic to West Coast of India rose by more than 35%, exceeding $10 per barrel and putting pressure on the price of the Kremlin's barrels, the IEA said, citing assessments by Argus Media.

READ: US Asks About 100 Tankers in Russia Oil Cap Violations Probe

Due to generally weaker global oil prices, the weighed average for Russian crude in October slipped to $80.66 per barrel, according to the IEA. Still, it remained well above the $60 cap imposed by the G-7, the data show.

While Brent lost $2.84 per barrel over last month, the weighed average for Russian barrels dropped by $1.13 as most cargoes of the Urals export blend loaded in the first half of October, when pricing conditions were more favorable, the IEA said.

Russia's total exports of crude oil and petroleum products in October eased to 7.5 million barrels per day, "as higher crude oil shipments failed to offset a decline in product flows," it added.

Russia imposed a temporary ban on most exports of diesel and gasoline in late September and lifted restrictions for seaborne flows of diesel only on Oct. 6. The ban on gasoline exports is still in force to stabilize the domestic fuel market.

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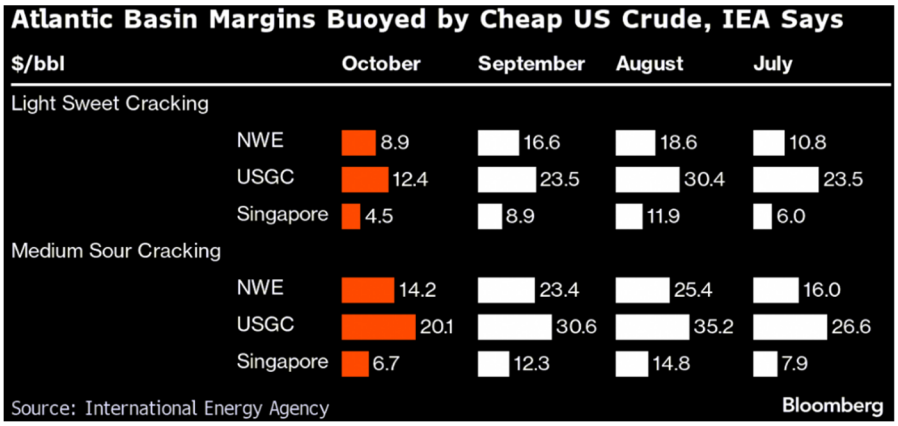
Oil Refining Margins Return to Levels Seen in 2Q, IEA Says
2023-11-14 09:00:00.11 GMT
By Rachel Graham
(Bloomberg) -- Oil refining margins slumped m/m in October, with most regions seeing a return to profitability levels seen late in the second quarter, the IEA said in its monthly Oil Market Report.
* Margins remain robust, buoyed by diesel and jet fuel
** Singapore is particularly exposed to weak naphtha and fuel oil pricing
* The US margin structure typically benefits from a lack of exposure to naphtha, with a yield of 1%
** That compares with 9% and 16% in Europe and Asia, respectively, in 3Q
* Atlantic Basin margins continue to benefit from the discounting of US light sweet crude and the impact WTI pricing continues to have in setting North Sea crude prices
** "Margins in Europe and the US remain at a structural premium versus those achieved in Asia"



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North Sea Crudes Fall on Narrowing Margins, Rising Supply: IEA
2023-11-14 09:00:00.24 GMT
By Sherry Su
(Bloomberg) -- Differentials of most North Sea grades fell this month from 15-month highs in October due to narrowing refining margins and end of platform maintenance, the IEA said in its monthly Oil Market Report. Many West African grades also saw a similar decline.

* Johan Sverdrup's premium hit a high of $5.10/bbl on Oct. 5 before collapsing to negative values in early November
* Despite weaker refining margins, tight supplies pushed premiums for Oseberg and Ekofisk to their highest in 15 months, maintaining that strength into November
** Ekofisk's spread rose by $1.67/bbl to $4.55/bbl against Dated while Oseberg widened by $2.12/bbl m/m to $5.51/bbl
* Premiums for many West African grades also spiked in early October but eased due to rising freight rates and wide Brent-Dubai EFS
* Forcados premium peaked at $6.50/bbl on Oct. 18, but fell sharply by $4.75/bbl to $1.75/bbl in November
* Bonny rose by 49c last month to $3.25/bbl above Dated, while Qua Iboe premium experienced a decline of 11c m/m to $3.41/bbl
* Angolan crude prices remained relatively stable throughout the month; Cabinda rose by 66c m/m to $3.16/bbl, retreating to $2.45/bbl in early November, while Girassol was up by $1.09/bbl m/m to $4.59/bbl, but recently collapsed to $1.05/bbl
* READ: Nov. 2, Surge in North Sea Oil Loadings to Help Ease Market Tightness

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European Naphtha Demand Seen Hitting Lowest Since 1975: IEA
2023-11-14 09:00:00.34 GMT
By Jack Wittels
(Bloomberg) -- Europe's annual naphtha deliveries are forecast to hit their lowest since 1975 this year, the IEA said in its monthly Oil Market Report.
* Average annual 2023 deliveries projected at 840k b/d
* A sharp drop in European steam cracking activity over last two years means 2023 demand is set to be 320k b/d below 2021
** That's a fall of 28%, equivalent to the typical consumption of about 10 medium-sized European naphtha crackers
* "European petrochemical operators have been squeezed by a fatal combination of anaemic manufacturing and construction demand on the home front and the latest and largest wave of new competing plants in international markets"
** Average European cracker operating rates down from 90% in 2017 to 65%-75% in recent quarters, the IEA said, citing ICIS

estimates
* “The enormous expansion of Chinese petrochemical capabilities since the late 2010s has become devastating because of its scale and the fact that it consists largely of naphtha crackers and highly competitive propane dehydrogenation (PDH) units”
* READ: Two Fuels That Power the Global Economy Flash Red in Europe
** NOTE: Above story also cites IEA saying naphtha demand lowest since 1975
** In that story, figures refer to OECD Europe and the vast majority of naphtha was for use as a petrochemical feedstock

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https://www.apikur.uk/publications/statement-on-federal-government-of-iraq-goi-kurdistan-regional-government-krg-negotiations/

16 NOV 2023

Statement on Federal Government of Iraq (GOI) - Kurdistan Regional Government (KRG) Negotiations

November 17, 2023

Key Points:
● APIKUR notes the discussions between GOI and KRG officials represent a potentially positive step toward resumption of full production and exports.
● APIKUR members have communicated conditions precedent to resume full oil exports and remain committed to resolve outstanding issues.
● Production Sharing Contracts (PSCs) remain in-force and are governed by English law with dispute resolution via international arbitration at the London Court of International Arbitration.

APIKUR notes the recent discussions between leaders from the GOI and KRG as a potentially positive step towards resuming oil exports via the Iraq-Türkiye Pipeline (ITP).

Representatives from APIKUR member companies were not invited and have not received any official communications of the meeting's outcomes.

APIKUR members have communicated the following conditions precedent to resume full oil production and exports:

● Any addendums must be agreed between the GOI, the KRG, and APIKUR member companies.
● There must be payment surety for past and future oil exports.
● Prospective oil sale payments to APIKUR member companies must be remitted directly to those companies.
● The APIKUR member companies' current commercial terms and economic model must be maintained.

APIKUR remains committed to swiftly resolve remaining issues to resume full production and export through ITP for the benefit of all parties and the people of Iraq. Under the status quo, losses continue to climb with more than $7 billion in export revenue lost since the pipeline closure in March 2023. The GOI is incurring over $1 million per day in financial penalties for not meeting its obligations under the ITP agreement.
- Ends -

About APIKUR:
APIKUR's objective and purpose is to promote the KRI as an attractive destination for international oil and gas companies, service providers and investors. In addition, APIKUR aims to advocate for and represent the common interests of its members, function as a joint and effective voice towards all relevant stakeholders whether in the KRI, or elsewhere, and provide a forum for its members to share appropriate public industry information and best practices.

For more information, visit www.apikur.uk

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https://www.eia.gov/todayinenergy/detail.php?id=41073
AUGUST 27, 2019

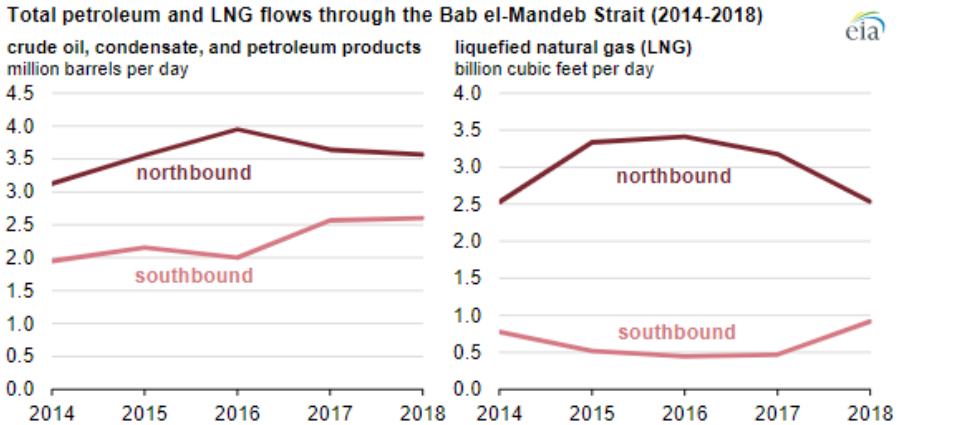
The Bab el-Mandeb Strait is a strategic route for oil and natural gas shipments

Source: U.S. Energy Information Administration

The Bab el-Mandeb Strait is a sea route chokepoint 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 that transit the Suez Canal or the SUMED Pipeline pass through both the Bab el-Mandeb and the Strait of Hormuz.

Chokepoints are narrow channels along widely used global sea routes that are critical to global energy security. The Bab el-Mandeb Strait is 18 miles wide at its narrowest point, limiting tanker traffic to two 2-mile-wide channels for inbound and outbound shipments. Closure of the Bab el-Mandeb Strait could keep tankers originating in the Persian Gulf from transiting the Suez Canal or reaching the SUMED Pipeline, forcing them to divert around the southern tip of Africa, which would increase transit time and shipping costs.

In 2018, an estimated 6.2 million barrels per day (b/d) of crude oil, condensate, and refined petroleum products flowed through the Bab el-Mandeb Strait toward Europe, the United States, and Asia, an increase from 5.1 million b/d in 2014. Total petroleum flows through the Bab el-Mandeb Strait accounted for about 9% of total seaborne-traded petroleum (crude oil and refined petroleum products) in 2017. About 3.6 million b/d moved north toward Europe; another 2.6 million b/d flowed in the opposite direction mainly to Asian markets such as Singapore, China, and India.



Source: U.S. Energy Information Administration, based on ClipperData, Inc; Suez Canal Authority; and International Group of LNG Importers (GIIGNL) using EIA conversion factors.
Note: CSV data

Before 2015, volumes of liquefied natural gas (LNG) passing through the Bab el-Mandeb Strait matched those passing through the Suez Canal because the Red Sea did not have any LNG infrastructure. In 2015, both Jordan and Egypt began importing small volumes of LNG into Red Sea ports, and these countries' imports of LNG peaked in 2016 at 1.4 billion cubic feet per day, 80% of which was delivered through the Bab el-Mandeb Strait.

More recently, as new natural gas fields in Egypt have come online, the need for Egypt to import LNG has decreased. Like flows to Egypt, total northbound flows of LNG via the Bab el-Mandeb have also decreased since 2016 as northbound flows to other destinations have remained fairly constant.

https://www.rudaw.net/english/middleeast/iraq/131120231

Iraq, KRG to adjust IOC contracts, resume oil exports: Oil minister

1 hour ago

Rudaw

Iraq's Oil Minister Hayyan Abdul-Ghani speaking to Rudaw on November 13, 2023. Photo: Rudaw

Also in Iraq

ERBIL, Kurdistan Region - Iraq's Oil Minister Hayyan Abdul-Ghani on Monday told Rudaw that both Erbil and Baghdad are working on adjusting the Region's contracts with the International Oil Companies (IOCs) to the Iraqi constitution and expressed optimism about a prompt resumption of Kurdish oil exports.

Ghani arrived in Erbil on Sunday accompanied by an Iraqi oil ministry delegation, and met with KRG Prime Minister Masrour Barzani and Natural Resources Minister Kamal Muhammad Salih, to discuss the outstanding issues between the Region and Baghdad over the resumption of the Kurdish oil exports.

The oil minister told Rudaw's Sangar Abdulrahman that during his meetings with Kurdish officials, the nature of the Region's contracts with the IOCs was discussed, noting that the KRG's natural resources ministry presented a "complete explanation" of the economic model and the details of the contracts.

The IOCs and the KRG are bound by Production Sharing Contracts (PSCs), which Ghani noted are against the Iraqi constitution, adding that the Iraqi government licenses companies under Profit Sharing Contracts.

"We have a project to adjust those contracts with the laws that are allowed by the Iraqi constitution," Ghani said.

Under the Kurdistan Region's PSC model, the IOCs cover the entire cost of production while the KRG receives the lion's share of the profits from successful projects.

In August, Myles Caggins, the spokesperson of the Association of the Petroleum Industry of Kurdistan (APIKUR) told Rudaw English that the association members would not produce oil unless there was an agreement and a full understanding of how much they would get paid.

Caggins said the oil companies would receive $6 per barrel based on discussions that have taken place with Baghdad, stressing that this is "not enough." He warned that if an agreement is not reached, APIKUR members would take the matter to a London arbitration court.

Ghani said the oil ministry has agreed with the KRG officials to hold meetings with the representatives of the IOCs in the Kurdistan Region, adding that they will try to reach a solution that satisfies all parties.

The Iraqi official said that the resumption of Kurdish oil exports through Turkey's Ceyhan port was also discussed at the meeting, stressing that both sides "were serious about restarting production and exports of oil," and expressing optimism that oil exports will soon resume.

Exports of Kurdistan Region's oil through the Iraq-Turkey pipeline have been halted since March 23 when a Paris-based arbitration court ruled in favor of Baghdad against Ankara, saying Turkey had breached a 1973 agreement by allowing Erbil to begin independent oil exports in 2014.

According to the Iraqi federal budget the Kurdistan Region is obliged to hand over, on a daily basis, at least 400,000 barrels of crude oil to Iraq's State Oil Marketing Organization (SOMO) to be exported through Turkey's Ceyhan port, or be used domestically in case it is not exported.

There have been several meetings between Turkish, Iraqi, and Kurdish officials since the court ruling, but exports have yet to resume. Prior to the halt, around 400,000 barrels a day were being exported by Erbil through Ankara, in addition to some 75,000 barrels of Kirkuk oil daily through the same pipeline.

The KRG is heavily reliant on oil revenues and an inability to sell its crude has severely impacted its economy. Erbil has lost billions of dollars since the exports were halted.

"China will either need to continue running its refineries and building stock at low margins or that there will be a drop in runs and that will manifest itself into lower appetite for crude. And that's highly visible since China is such a significant global importer of crude oil. I think those are the signs of softness that the market's been detecting." **Mike Muller, Head Vitol Asia.**

SAF Group created transcript of comments by Mike Muller (Head, Vitol Asia) to Sean Evers (Founder & Managing Partner of Gulf Intelligence) on Gulf Intelligence's Daily Energy Markets podcast on Nov 5, 2023.
https://twitter.com/gulf_intel/status/1721052973919506582

Items in "italics" are SAF Group created transcript.,

At 11:45 min mark, Evers "… *what's your outlook now as China moves in to the winter peak demand window and the China new year coming up in January?" Muller "… we have to remind ourself this is the time of year when demand in Asia peaks but demand in the western hemisphere tends to ebb to a low because of less driving activity, winter conditions, etc. But what we see going on in China is quite interesting because the fuel sale data on a weekly basis does not really show evident signs of economic weakness. Diesel sales are in line with expectations. Jet demand is indeed robust, exceeding expectations. Singapore Airlines just laid on five extra flights a week from Singapore to China, they don't tend to do that unless they're confident that there will be passengers in their seats. And it's only really gasoline that has shown a steeper than expected dip in October but there is a reason for that – there was a public holiday Golden Week. But the one thing that has happened to China that is quite notable is that refining margins have dropped to the lowest levels we have seen in a very long time and certainly the lowest level this year. In some cases, bordering on the negative. So why are Chinese margins negative. I think the explanation is that runs in the third quarter, which were a million barrels a day more perhaps than same time last year when we still had Covid, so always difficult to compare. But they were likely a response to high demand expectations that were possibly unreasonably high and, at the same time, there was a bit of destocking going on. And as a consequence now, we've seen all this translate into higher than expected stocks. And if the stocks are unseasonably high, the only consequence is that you push domestic prices down, you push refining margins down and you force run cuts. So it goes without saying that China will either need to continue running its refineries and building stock at low margins or that there will be a drop in runs and that will manifest itself into lower appetite for crude. And that's highly visible since China is such a significant global importer of crude oil. I think those are the signs of softness that the market's been detecting.*

Prepared by SAF Group https://safgroup.ca/news-insights/

https://www.sfexaminer.com/forum/president-xi-jinping-addresses-the-apec-ceo-conference-in-sf/article_6e1d9d1c-8400-11ee-829c-9356fa16f4dc.html

Read Xi Jinping's full remarks to the APEC CEO summit

- *Written Speech by H.E. Xi Jinping President of the People's Republic of China*

  Nov 16, 2023 Updated 2 hrs ago

Editor's note

It is not The Examiner's standard practice to publish political speeches in their entirety. But amid San Francisco's largest gathering of international heads of state since the U.N. Charter Conference in 1945 — and on the heels of a high-stakes meeting between President Joe Biden and Chinese President Xi Jinping at the Filoli estate yesterday — The San Francisco Examiner obtained an exclusive, advance copy of President Xi's speech to the APEC CEO summit.

This is no ordinary speech. It is a highly anticipated message to American businesses, policymakers and the entire world that will be widely studied, scrutinized and interpreted for clues about the evolving U.S.-China relationship, China's internal priorities, points of friction, and potential opportunities for cooperation.

As such, we have determined that the speech holds inherent news value as a complete text. We have chosen to make the entire speech available to our readers, published here in our opinion section.

Clinton Reilly, Owner and publisher, The San Francisco Examiner

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Meeting Challenges with Unity of Purpose To Write a New Chapter for Asia-Pacific Cooperation

Representatives of the Business Community,

Ladies and Gentlemen,

Friends,

It gives me great pleasure to be invited to address the APEC CEO Summit. I visited San Francisco many years ago, and I was deeply impressed by the openness, inclusiveness and creativity which this beautiful city is famous for.

Three decades ago, where humanity should be headed in the post-Cold War era was the question of the world, of history and of the times in front of Asia-Pacific leaders. In response, they followed the trend toward peace and development, and convened the inaugural APEC Economic Leaders' Meeting. They agreed unanimously to rise above the outdated mentality of bloc confrontation and zero-sum game, deepen economic cooperation and integration in the region, and build a dynamic, harmonious and prosperous Asia-Pacific community. This major decision enabled Asia-Pacific development and economic globalization to embark on a fast track of growth, turning the region into a powerhouse for world economic growth, an anchor of stability for global development, and a

pacesetter for international cooperation. There is so much we can draw from this remarkable journey of Asia-Pacific cooperation.

Openness and inclusiveness are the defining feature of Asia-Pacific cooperation. Development in our region has been achieved not through provoking antagonism and confrontation, pursuing a beggar-thy-neighbor policy, or erecting high fences around a small yard, but by staying open and inclusive and drawing on each other's strengths. We have stayed committed to open regionalism, jointly formulated the Bogor Goals and the Putrajaya Vision, promoted trade and investment liberalization and facilitation, and bolstered economic integration of the region. Over the past three decades, the Asia-Pacific has cut its average tariff rate from 17 percent to 5 percent, and contributed 70 percent of global economic growth.

Development for all is the overarching goal of Asia-Pacific cooperation. Development is an eternal pursuit in our region. We have stayed focused on development and continually deepened economic and technical cooperation, thus strengthening the ability of developing members to achieve self-development. We jointly developed "the APEC Approach" based on the principles of voluntarism, consensus-building and incremental progress, and we respect the right to development of all members. Over the past three decades, per capita income in the Asia-Pacific has more than quadrupled, and one billion people have been lifted out of poverty. This is an important contribution to human progress and global sustainable development.

Seeking common ground while shelving differences is the best practice of Asia-Pacific cooperation. Economies in the region have different histories and cultures and are in different stages of development.

Forcing uniformity will not advance cooperation in the region; seeking common ground while shelving differences is the right way forward. Over the past three decades, we have properly tackled major challenges such as the Asian and international financial crises, and have sustained the momentum of economic development in the Asia-Pacific. Our success was possible because we have followed the underlying trend, kept the larger picture in mind, and capitalized on the spirit of partnership featuring harmony without uniformity, and solidarity and mutual assistance. This has enabled us to turn diversity in membership into momentum for cooperation and make collective progress through tapping into complementarity.

Ladies and Gentlemen,

The world has entered a new period of turbulence and change. The momentum of world economic growth is sluggish. Destabilizing, uncertain and unpredictable factors are increasing. Where will Asia-Pacific cooperation be headed in the next 30 years? This is a new question of the times facing us. As an ancient Chinese scholar observed, "Plants with strong roots grow well, and efforts with the right focus ensure success." We should stay committed to APEC's founding mission, never forget our mission bestowed by history, and move to relaunch Asia-Pacific cooperation.

San Francisco, where the United Nations Charter was signed, embodies the noble aspiration of all peoples for peace across the world. Peace does not come by easily, and development is a long and arduous task. We should jointly uphold the purposes and principles of the U.N. Charter, and follow the right norms for state-to-state relations to maintain Asia-Pacific prosperity and stability through dialogue and partnership rather than confrontation and alliance. The region cannot and should not be an arena for geopolitical rivalry, still less should it be plunged into a new cold war or camp-based confrontation.

The story of Asia-Pacific prosperity and development shows that development is only possible with cooperation, absence of cooperation is the biggest risk, and that decoupling and supply-chain disruption are not in anyone's interests. We should remain committed to open regionalism, and steadfastly advance the building of a Free Trade Area of the Asia-Pacific. We should respect laws governing economic development, bring out the best in each and every one of us, make our economies more interconnected, strengthen synergy between relevant regional trade agreements and development strategies, and build an open Asia-Pacific economy featuring win-win cooperation.

Facing a new wave of scientific and technological revolution and industrial transformation, we should look beyond the horizon, seize the opportunities, and move along with the trend to promote transition to digital, smart and green development. We should jointly boost innovation and market application of scientific and technological advances, and push forward full integration of digital and physical economies. We should jointly improve global governance of science and technology, bolster support for green and digital transition and sustainable development through innovation, and build an open, fair, just and non-discriminatory environment for the development of science and technology.

Ten years ago, I called for building a community with a shared future for mankind. The APEC Putrajaya Vision explicitly lays out its vision for an Asia-Pacific community by 2040, charting the course for further cooperation in our region. In recent years, in response to the pressing needs around the world, I have proposed the Global Development Initiative (GDI), the Global Security Initiative (GSI) and the Global Civilization Initiative (GCI). They are intended to galvanize all stakeholders to address global challenges, promote common development, and improve the well-being of humanity. China will work with all in the Asia-Pacific to advance and implement these initiatives, and build an open, inclusive, clean and beautiful world of lasting peace, universal security and shared prosperity.

Ladies and Gentlemen,

Friends,

This year, China's economy has been steadily recovering and turning for the better. Its growth rate is among the highest among major economies of the world. And solid gains have been made in our pursuit of high-quality development. China remains the most powerful engine of global growth, and will generate one-third of global growth this year. Just as some leaders of the business community have said, China has become a synonym of the best investment destination, and that the "next China" is still China. We invite friends from business communities across the world to invest and deepen your footprint in China.

China enjoys distinct strengths such as a socialist market economy in systemic terms, a supersize market in terms of demand, a full-fledged industrial system in terms of supply, and abundant, high-caliber labor forces and entrepreneurs in terms of human resources. China's economic development is self-generative, resilient and has many potentials. In the past, China surmounted numerous difficulties and obstacles by defusing risks and meeting challenges, and made historic achievements. Today, the overall Chinese economy, blessed by its strong resilience, enormous potential and ample room for maneuver, remains promising, and it will remain so in the long run. We have the confidence in, and even more capability of achieving long-term and stable growth, and through our development we will continue to provide the world with new growth momentum and opportunities.

China is committed to applying the new development philosophy with a focus on achieving innovative, coordinated, green and open development for all, and it is pursuing high-quality development and

high value-added and green economic growth. Recent years have seen rapid growth in China's export of "the new three," namely, new energy vehicles, lithium-ion batteries and photovoltaic products. A national voluntary greenhouse gas emissions reduction trading market will soon be launched, which will create huge green market opportunities. China will expedite its efforts to modernize the industrial system, provide better institutional safeguards to enable business entities of all types to share in the gains of development, and foster new drivers of growth and create more room for development.

We remain committed to pursuing development with our doors open. We will unswervingly advance high-standard opening up and further expand market access. China has announced the removal of all restrictive measures on foreign investment in manufacturing. The sixth China International Import Expo was held recently, and the second Global Digital Trade Expo will be held later this month. All these steps will expand China's opening up and create more development opportunities and benefits for other countries. China is applying high standards to its implementation of the Regional Comprehensive Economic Partnership Agreement. It is working to align itself with the high-standard economic and trade rules of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and the Digital Economy Partnership Agreement to advance the process of acceding to these two agreements, and expand a globally-oriented network of high-standard free trade areas. This year marks the 10th anniversary of the Belt and Road Initiative that I proposed. Last month, China hosted the third Belt and Road Forum for International Cooperation with 458 deliverables. Chinese financial institutions established a financing window of RMB 780 billion for Belt and Road projects, and Chinese and foreign companies reached business deals worth USD 97.2 billion. All this will contribute to high-quality Belt and Road cooperation, and provide strong momentum for connectivity, development and prosperity around the world.

No matter how the international situation evolves, China's resolve to foster a market-oriented, law-based and world-class business environment will not change. And our policy of providing equal and quality services to foreign investors will not change. We will continue to improve the mechanisms for protecting the rights and interests of foreign investors, further shorten the negative list on foreign investment, fully ensure national treatment for foreign investors, and continue to strengthen IPR protection. We will strive to tear down the barriers to the flow of innovation factors, deepen reform of the digital economy, and promote free and orderly flow of data in compliance with the law. We will also take more "heart-warming" measures, such as improving the policies on entry and stay of foreign nationals in China and removing for them choke points in financial, medical, e-payment and other services. All this is designed to make it easier for foreign companies to invest and operate in China.

I wish to stress that Chinese modernization naturally calls for high-quality development by overcoming economic challenges and making steady progress. Its immutable goal is to deliver a better life to the whole of more than 1.4 billion Chinese people. For the world, this means a broader market and unprecedented cooperation opportunities. It will also instill strong impetus in the global modernization endeavor.

Ladies and Gentlemen,

Friends,

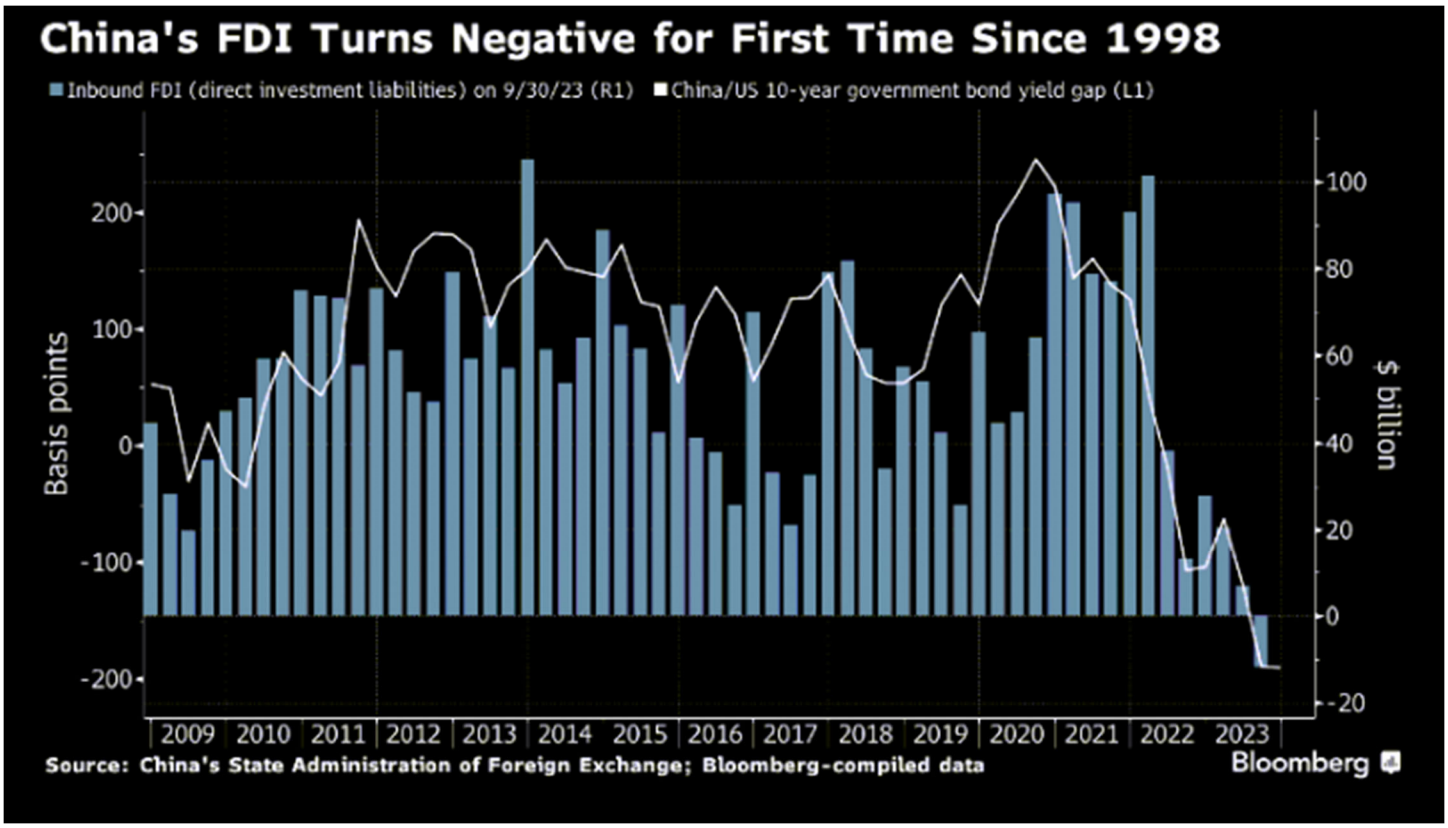
The Asia-Pacific business community has always been courageous pioneers in Asia-Pacific cooperation and global development. I hope that you will make full use of your entrepreneurship, and contribute even more to building an open Asia-Pacific economy and boosting global economic development. I also hope to see an active part of the global business community in the Chinese

modernization drive to benefit from the huge opportunities brought by China’s high-quality development!

Thank you.

China Is Having a Hard Time Wooing Foreign Investors Back (1)
2023-11-08 11:37:38.881 GMT

By Bloomberg News
(Bloomberg) -- China is struggling in its attempt to lure foreigners back as data shows more direct investment flowing out of the country than coming in, suggesting companies may be diversifying their supply chains to reduce risks.
Direct investment liabilities in the country's balance of payments have been slowing in the last two years. After hitting a near-peak value of more than $101 billion in the first quarter of 2022, the gauge has weakened nearly every quarter since. It fell $11.8 billion in the July-to-September period, marking the first contraction since records started in 1998.
"It's concerning to see net outflows where China's doing its best at the moment to try and open — certainly the manufacturing sector — to new inflows," said Robert Carnell, regional head of research for Asia-Pacific at ING Groep NV. "Maybe this is the beginning of a sign that people are just increasingly looking at alternatives to China for investment."



The Chinese government has embarked on a big push in recent months to lure foreign investment back to the country. On Wednesday, the Ministry of Commerce asked local governments to clear discriminatory policies facing foreign companies in a bid to stabilize investment confidence.
It cited the need to ensure subsidies for new energy vehicles are not limited to domestic brands as one example. In

some industries, foreign firms wait longer and are subject to more rigorous reviewing process when applying for licenses.
In August, the internet regulator met with executives from dozens of international firms to ease concerns about new data rules. The government has also pledged to offer overseas companies better tax treatment and make it easier for them to obtain visas.
But Beijing's pledges have rung hollow for some firms, with foreign business groups decrying "promise fatigue" amid skepticism about whether meaningful policy support is forthcoming. They also have incentive to repatriate earnings overseas because of the wide gap in interest rates between China and the US, which may be pushing them to seek higher returns elsewhere.
The FDI outflows are adding pressure on the onshore yuan, which has hit the weakest level since 2007 earlier this year. China's benchmark 10-year government bond yield is trading at 191 basis points below that of comparable US Treasuries, versus an average premium of about 100 basis points over the past decade.
"Decoupling" or "derisking" from China is an important reason for the declining FDI data reported by the State Administration of Foreign Exchange, according to Louis Kuijs, chief economist for Asia Pacific at S&P Global Ratings. Concerns about geopolitics and US-China relations were cited as major reasons for foreign corporate pessimism in a survey published in September by the American Chamber of Commerce in Shanghai.
Companies have cited various countries in the region as destinations for their supply chain shifts. Japan, India and Vietnam were floated as "top destinations gaining more attraction" in a spring survey of companies by UBS Group AG. A March AmCham report pointed to developing Asia and the US as places where members were considering moving capacity to from China.

Widespread Consequences

The lack of investment among global firms in China may have far reaching effects on the world's second-largest economy, especially as it tries counter US curbs on access to advanced technology.
Aside from geopolitical risks, companies had also been pulling back on investment in China last year as the country rolled out pandemic restrictions. While those curbs have been removed, firms are still contending with other challenges from rising manufacturing costs in China and regulatory hurdles as Beijing scrutinizes activity at foreign corporations due to national security concerns.
"Some of the most damaging things have been the abrupt regulatory changes that have taken place," said Carnell, pointing to this year's anti-espionage campaign, which resulted in some firms having their offices raided by local authorities.
"Once you damage the sort of perception of the business

environment, it's quite difficult to restore trust. I think it will take some time."

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Read More About Foreign Firms in China:

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Foreign companies make up less than 3% of the total number of corporations in China, but contribute to 40% of its trade, more than 16% of tax revenue and almost 10% of urban employment, state media has reported. They've also been key to China's technological development, with foreign investment in the country's high-tech industry growing at double-digit rates on average since 2012, according to the official Xinhua News Agency.

"A decline in trade and investment links with advanced economies will be a particularly significant headwind for a catching up economy such as China, weighing on productivity growth and technological progress," Kuijs said.

Limited Optimism

There are some reasons for optimism in the coming weeks and months. President Joe Biden is set to meet with his Chinese counterpart Xi Jinping on the sidelines of the Asia-Pacific Economic Cooperation summit in San Francisco later this month, which may help stabilize strained bilateral ties.

It would be helpful if increased communication yielded some "more stability and clarity on the geopolitical front," Kuijs said, though he added it is unlikely the US will meaningfully change its policy stance.

Some economists also argue that FDI will stabilize once the China-US yield differential narrows. They also point to data on actually utilized FDI published by the Ministry of Commerce, which holds up better the SAFE data: Those figures show FDI fell 8.4% in the first nine months of this year from the same time period in 2022, to 920 billion yuan.

"I think things are not as bad as they seem from the SAFE data, otherwise policy tightening for China's capital account management would be witnessed," said Bruce Pang, chief economist for Greater China at Jones Lang LaSalle Inc.

In any case, China still needs to convince investors that they are welcome in the country.

"The more that it can offer a stable, conducive policy environment, the better it would be for FDI," Kuijs said. "That includes minimizing the impact of national security-related measures on the economy and sentiment."

--With assistance from Wenjin Lv and Evelyn Yu.

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Experts warn of 'small spike' in COVID-19 in winter

By Du Qiongfang and Yu Xi Published: Nov 12, 2023 10:02 PM

Medical experts warned of a potential spike in COVID-19 infections in the coming winter season. While this could pose a threat to the elderly and vulnerable populations, experts assured the public that medical facilities were sufficient to handle the situation so there is no reason to panic.

China's top respiratory disease expert Zhong Nanshan warned of a small COVID-19 spike in the winter and reminded the elderly and vulnerable populations to get vaccinated as soon as possible during the 3rd Guangdong-Hong Kong-Macao Greater Bay Area (GBA) Health Cooperation Conference held in Guangzhou, South China's Guangdong Province, on Friday. He also detailed the future transmissibility of COVID-19 and its increased ability to escape antibodies.

Zhong stated that the elderly and people with weakened immune systems should receive second-generation vaccines as soon as possible.

Statistics from the Chinese Center for Disease Control and Prevention (Chinese CDC) show that a total of 209 new severe COVID-19 cases and 24 deaths caused by COVID-19 were reported across the country in October, with the prevalent strains all being XBB variants.

The virus is undergoing mutations, while the general population's ability to fight off the disease is declining because their antibody levels are lowering as time passes, Lu Hongzhou, head of the Third People's Hospital of Shenzhen, told the Global Times on Sunday.

According to Lu, there may be a rise in COVID-19 cases during the winter seasons. Also, autumn and winter are known for high influenza rates, so people should also be cautious of potential co-infections, according to Lu. While it is still necessary to continue implementing prevention and control measures in the winter season, there is no need to be overly concerned about it, said Lu.

A staffer from a local community hospital in the Pudong New Area in Shanghai told the Global Times on Sunday that the hospital's regular management experiences accumulated during the past three years and its routine medical examinations and treatment for COVID-19 patients, such as fever clinics and the CT scanning equipment, are sufficient as long as there is no big influx of severe cases.

Zhuang Shilihe, a Guangzhou-based expert who closely follows the COVID-19 pandemic, also told the Global Times on Sunday that COVID-19 medicines are sufficient to cover spikes.

According to the employee from the community hospital, the hospital has prepared a two-month supply of small-molecule antiviral drugs for COVID-19.

With the winter season approaching, apart from the risk of COVID-19 infection, there has been a high incidence of mycoplasma pneumoniae pneumonia (MPP) and influenza in recent weeks. The Chinese CDC issued a reminder to be cautious about mixed infection of multiple respiratory pathogens from this winter until next spring.

Major hospitals have continuously adjusted medical services based on patient visits. They have implemented measures including adding pre-examination tests, increasing nursing staff, and enhancing internet-based outpatient services to minimize patient wait times.

The number of visits to the fever clinic and emergency department at Shanghai Children's Medical Center has decreased by 40 percent compared to the peak about two weeks ago, an expert from the center told the Global Times on Sunday.

Experts also said that key groups, including children, the elderly, and people with weakened immune systems,

should get vaccinated as early as possible to prevent the risk of severe pneumonia caused by the combination of influenza and pneumonia pathogens.

Besides this, a joint research paper published by the China-Japan Friendship Hospital, Peking Union Medical College Hospital and Wuhan Jinyintan Hospital in the The Lancet announced their latest discovery of 23 novel protein markers associated with long-term COVID-19 infection, which will help early identification of high-risk individuals with long COVID.

The symptoms of long COVID include fatigue, shortness of breath, headaches, hair loss, taste and smell disorders and more. Anyone could develop long COVID after infection, and this should not be overlooked, Lu noted.

Nov 10, 2023 10:11:17

OIL DEMAND MONITOR: Europe's Economic Woes Hit Fuels Outlook (1)

Continent's creaking economy drags down diesel consumption
Ample supplies weigh on prices; OPEC kingpins say usage strong

By John Deane

(Bloomberg) -- Sharp declines in consumption of fuels centered on Europe have dampened the outlook for crude oil demand in the later part of the year, combining with ample global supplies to undercut futures prices.

With Europe's economy stumbling, sales of diesel shrank year-on-year in Spain, the UK, Italy and France in September, while they also dived in Germany in August, government and industry data showed. OECD Europe's consumption of diesel and naphtha – key fuels for the transport and petrochemicals industries respectively – is set to plunge this year.

Echoing the softness in Europe, diesel consumption has waned in recent weeks in the US, where use by farmers is easing as the crop harvest is almost complete.

There are also signs of weakness in the need for gasoline. Next year, US demand for the road fuel per capita will plunge to the lowest in two decades, according to the Energy Information Administration. The agency cited high gasoline prices and persistently elevated inflation as reasons for the drop, while increased remote working and improvements in fuel efficiency may also be factors.

Read More: Oil's Rally Toward $100 Fizzles as Economic Outlook Darkens

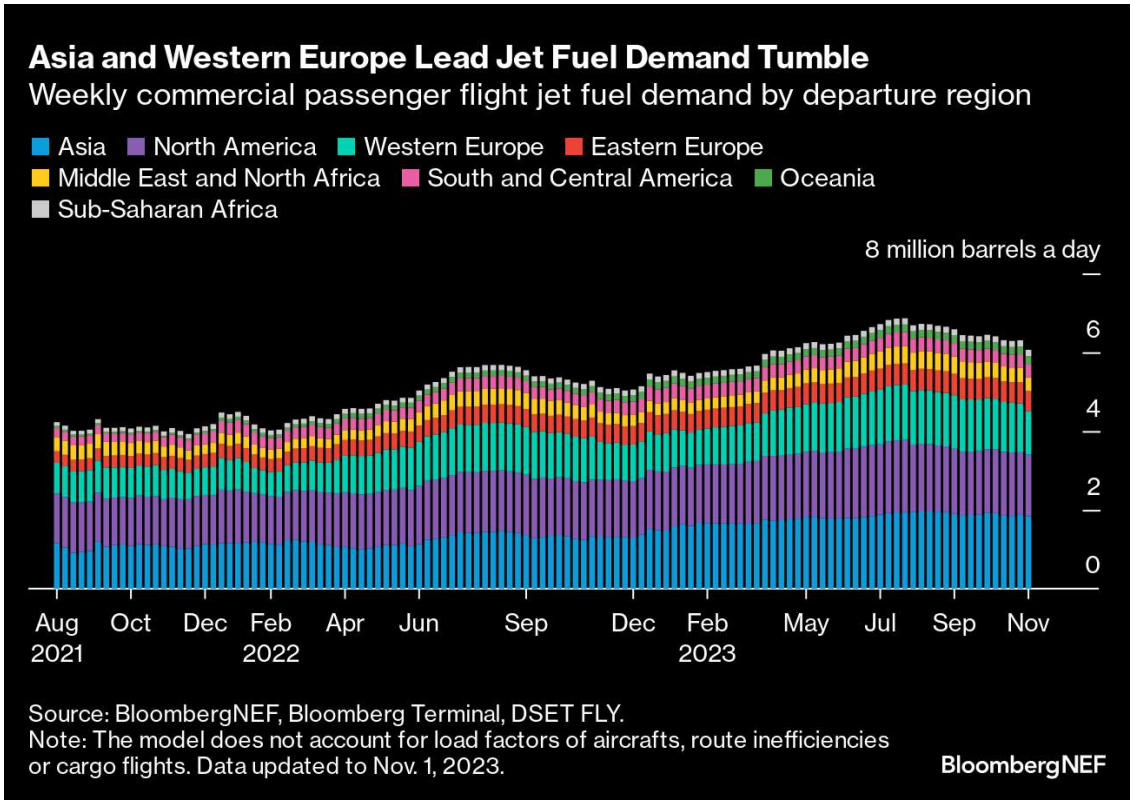
On the roads, recent data showed a broad easing in congestion levels. Of 13 major global cities covered by this monitor, only two – London and Berlin – topped pre-Covid traffic levels on Monday, according to BloombergNEF seven-day moving-average calculations based on TomTom data. That compares with six cities surpassed that marker a month earlier.

In the skies, there was a mixed picture. Global flights continued to track comfortably above last year's figures and 2019 levels in the week beginning Nov. 6, but dipped on a month-on-month basis, figures from Flightradar24 showed. Passenger throughput at US airports also slipped on that basis, according to data from the Transportation Security Administration.

In China, air passenger traffic dropped 16% in September, the first month-on-month decline this year, according to data from the country's Civil Aviation Administration.

Airline seat capacity slipped to a little over 103 million seats in the latest week, according to data provider OAG Aviation.

Read More: Aviation Indicators Weekly and Jet Fuel Demand Set to Tumble, Led by Western Europe: BNEF Chart



The picture from available data isn't all gloom and doom, though. India's oil-product consumption in October rose 3.7% year-on-year to 19.3 million tons, the highest since June, according to provisional figures published by the oil ministry's Petroleum Planning & Analysis Cell.

And there are differing views on the demand outlook for China, the biggest oil importer. The Asian nation's apparent oil demand rose almost 17% to 15.24 million barrrels a day in September, according to data compiled by Bloomberg, while the country's refiners processed crude at a record pace. PetroChina Co., its biggest oil producer, expects the country's demand for refined oil products to rise more than 10% in the fourth quarter from a year earlier, boosted by government stimulus, the company's president said late last month.

Still, refining margins are falling, crude and fuel stockpiles are building and a hoped-for sharp jump in air travel still hasn't materialized. That's mirroring the situation in China's wider economy, where business and consumer confidence remain low despite government efforts to juice growth.

Market Outlook

On a global basis, the Paris-based International Energy Agency sees global markets tipping back into surplus next year as demand growth suffers a sharp slowdown to less than 1 million barrels a day. Energy trader Gunvor sees a more robust picture, with daily consumption expanding by at least 1.6 million barrels. Early next week, the IEA and OPEC will issue their latest monthly oil market reports, which will be carefully scrutinized for pointers as to where the demand-supply balance is headed.

Many market watchers see too much supply, along with easing concerns about potential supply disruption in the Middle East, as the real cause of the recent price decline. OPEC+ member Russia is shipping crude at a rate close to the highest in more than four months.

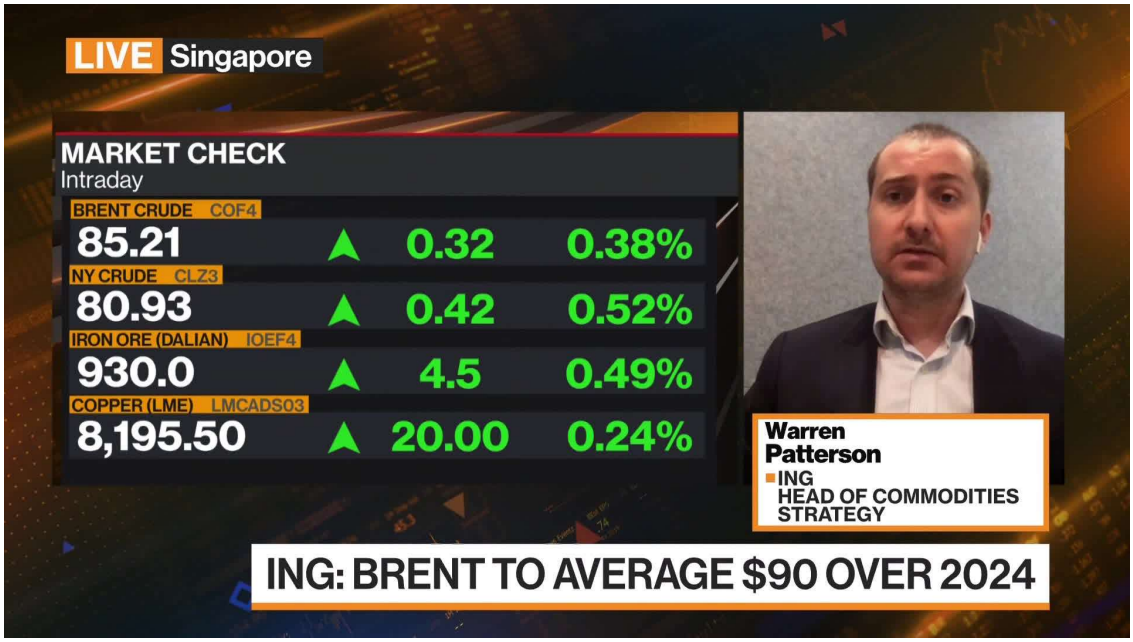
Oil prices are expected to recover, UBS strategist Giovanni Staunovo said in a note earlier this week. The bank continues to see the market "as undersupplied and expect falling oil inventories to support prices."

OPEC+ still has a positive outlook for growth in oil demand, despite the headwinds faced by the global economy, Secretary-General Haitham Al-Ghais said at the Argus European Crude Conference in London this week.

"I think the US economy is doing very well. Europe may be struggling a bit," Al-Ghais said. "We're still talking about the Chinese economy growing by over 4.5% to 5%" and overall global oil demand continues to rise significantly, he said.

Oil demand is healthy and speculators are to blame for the recent drop in crude prices, Saudi Arabia's energy minister insisted this week.

"It's not weak," Prince Abdulaziz bin Salman told reporters in Riyadh, when asked about the decline in oil prices. "People are pretending it's weak. It's all a ploy."



Warren Patterson, head of commodities strategy at ING, discusses the outlook for oilBloomberg

The Bloomberg oil demand monitor uses a range of high-frequency data to help identify emerging trends. Following are the latest indicators. The first two tables show fuel demand and road congestion, the next shows air travel globally and the last is refinery activity.

Demand Measure	Location	%vs 2022	% vs 2021	% vs 2020	% vs 2019	% m/m	Freq	Latest Date	Latest Value	Source
Gasoline product supplied	US	+0.4	-8.5	+4.3	-11	+8.5	w	Oct. 27	8.7m b/d	EIA
Distillates product supplied	US	-14	-0.1	-2.1	-14	-3.5	w	Oct. 27	3.68m b/d	EIA
Jet fuel product supplied	US	+31	+1.8	+88	-6.4	+0.2	w	Oct. 27	1.71m b/d	EIA
Total oil products supplied	US	-3	-0.6	+8.2	-8.2	+3.7	w	Oct. 27	19.87m b/d	EIA
Car use	UK	unch.	unch.	+11	-6	-3.1	m	Oct. 9	94	DfT
Heavy goods vehicle use	UK	+1	-3.6	unch.	+6	-0.9	m	Oct. 9	106	DfT
All motor vehicle use index	UK	+1	+1	+11	-1	-2.9	m	Oct. 9	99	DfT
Gasoline (petrol) avg sales per filling station	UK	+5.2	+6.3	+15	-4.7	-1.2	m	Week to Oct. 29	6,850 liters/d	BEIS
Diesel avg sales per station	UK	-2.1	-6.3	-5.5	-17	-1.3	m	Week to Oct. 29	8,635 liters/d	BEIS
Total road fuels sales per station	UK	+1	-1.1	+2.6	-12	-1.2	m	Week to Oct. 29	15,485 liters/d	BEIS
Diesel sales	India	+9.3				+18	m	October	7.63m tons	PPAC
Gasoline sales	India	+4.8				+2.7	m	October	3.14m tons	PPAC
Jet fuel sales	India	+12				+5.2	m	October	691k tons	PPAC

LPG sales	India	+4.3			-2.2 m	October	2.5m tons	PPAC
Total oil products	India	+3.7			+5.5 m	October	19.26m tons	PPAC
Gasoline deliveries	Spain	+8.5			-0.4 m	October	558k m3	Exolum
Diesel (and heating oil) deliveries	Spain	-3.6			+2.4 m	October	2,217k m3	Exolum
Jet fuel deliveries	Spain	+15			-1.5 m	October	653k m3	Exolum
Total oil products deliveries	Spain	+1.7			+1.2 m	October	3,428k m3	Exolum
Road fuel sales	France	-10			-1.9 m	September	3.988m m3	UFIP
Gasoline sales	France	-1.8			m	September	n/a	UFIP
Road diesel sales	France	-13			m	September	n/a	UFIP
Jet fuel sales	France	+12		-13	-9.1 m	September	696k m3	UFIP
All petroleum products sales	France	-13			-0.3 m	September	4.575m tons	UFIP
All vehicles traffic	Italy	unch.			-6 m	October	n/a	Anas
Heavy vehicle traffic	Italy	+3			-3 m	October	n/a	Anas
Gasoline sales	Italy	-2.9		+17	-7.4 m	September	703k tons	Energy Ministry
Transport diesel sales	Italy	-4.5		+2.6	+5.8 m	September	2m tons	Energy Ministry
Diesel/gasoil sales	Italy	-6.1		unch.	+7 m	September	2.25m tons	Energy Ministry
LPG sales	Italy	-7.8		-4.4	+1.7 m	September	237k tons	Energy Ministry
Jet fuel sales	Italy	+22		-2.3	-8 m	September	459k tons	Energy Ministry
Total oil product sales	Italy	-2.7		-4.1	+2.8 m	September	4.45m tons	Energy Ministry
Gasoline consumption	Portugal	-2.1	+6.2	+12	+16	-22 m	September	96,350 tons	ENSE
Diesel consumption	Portugal	-3.8	-4.7	-2.9	-0.8	-12 m	September	391,844 tons	ENSE
Jet fuel consumption	Portugal	+12	+81	+202	+7.4	-2.2 m	September	172,144 tons	ENSE
Gasoline	Germany	-13			-10	-3.3 m	August	1.45m tons	BAFA
Diesel	Germany	-16			-14	unch. m	August	2.8m tons	BAFA
Heating oil	Germany	-31			-42	-10 m	August	748k tons	BAFA
Jet fuel	Germany	+0.7			-8.1	-2.2 m	August	877k tons	BAFA
Total oil product sales	Germany	-17			-20	-5.1 m	August	7.1m tons	BAFA
% change in toll roads kms traveled	France	+6.6			+2	m	October	n/a	Mundys
% change in toll roads kms traveled	Italy	+1			+0.4	m	October	n/a	Mundys
% change in toll roads kms traveled	Spain	+6.1			-2.4	m	October	n/a	Mundys
% change in toll roads kms traveled	Brazil	+3.1			+4	m	October	n/a	Mundys
% change in toll roads kms traveled	Chile	-2.7			+16	m	October	n/a	Mundys
% change in toll roads kms traveled	Mexico	+2.2			+15	m	October	n/a	Mundys

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.

City congestion:

Measure	Location	Nov. 6	Oct. 30	Oct. 23	Oct. 16	Oct. 9	Oct. 2	Sept. 25	Sept. 18	Sept. 11	Sept. 4
Congestion	Tokyo	73	99	98	98	93	99	105	96	90	89
Congestion	Taipei	93	93	96	85	101	98	104	98	104	94
Congestion	Jakarta	74	71	67	68	69	61	67	65	64	67
Congestion	Mumbai	54	38	60	58	60	56	53	68	63	56
Congestion	New York	82	108	103	104	93	108	96	112	107	77
Congestion	Los Angeles	80	80	98	100	97	95	93	95	93	83
Congestion	London	136	136	98	120	124	126	135	124	110	124
Congestion	Rome	96	125	125	126	129	125	121	115	102	59
Congestion	Madrid	50	89	127	81	117	109	108	103	79	54
Congestion	Paris	91	96	118	111	112	112	90	110	104	84
Congestion	Berlin	104	103	116	114	101	105	108	107	103	110
Congestion	Mexico City	63	73	76	80	79	79	79	72	86	84
Congestion	Sao Paulo	56	84	82	66	89	81	79	87	64	80

Source: TomTom. Click here for a PDF with more information on sources, methods

Note: TomTom changed its methodology for calculating traffic delays with data for Feb. 20 and no longer publishes comparisons with pre-Covid levels. We have therefore switched to using figures calculated by BNEF, which show seven-day moving-average congestion indexed to average 2019 levels. See the linked PDF for more details.

Air Travel:

Measure	Location	vs 2022	vs 2021	vs 2020	vs 2019	m/m	w/w	Freq.	Latest Date	Latest Value	Source
		changes shown as %									
All flights	Worldwide	+12	+15	+38	+13	-7.2	+2.9	d	Nov. 6	211,485	Flightradar24
Commercial flights	Worldwide	+18	+30	+76	+6.1	-6.5	-1.7	d	Nov. 6	119,738	Flightradar24
Seat capacity per week	Worldwide	+15	+37	+89	-3		-1.5	w	Nov. 6 week	103.4m seats	OAG
Air traffic (flights)	Europe				-8.6	-13	-1.9	d	Nov. 6	27,105	Eurocontrol
Airline passenger throughput (7-day avg)	US	+7	+27	+192	unch.	-6	-6	w	Nov. 5	2.24m	TSA
Air passenger traffic per month	China	+166	+48	+12	-2.4	-16		m	September	53.5m	CAAC
Heathrow airport passengers	UK	+22	+175	+463	+4.4	-6.3		m	September	7.08m	Heathrow
Rome % change in passengers carried	Italy	+24			-3.4			m	October	n/a	Mundys

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

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

Refineries:

Measure	Location	vs 2022	vs 2021	vs 2019	m/m chg	Latest as of Date	Latest Value	Source
			Changes are in ppt unless noted					
Crude intake	US	-3.7	+1.5%	-4.7	-2.2%	Oct. 27	15.25m b/d	EIA

Utilization	US	-5.2	-0.9	-2.3	-1.9	Oct. 27	85.4% EIA
Utilization	US Gulf	-4.8	-0.6	-3.2	-0.5	Oct. 27	86.5% EIA
Utilization	US East	-32	-7.2	+12.1	+3.3	Oct. 27	71.5% EIA
Utilization	US Midwest	-2.5	-2.9	-2.9	unch	Oct. 27	87.1% EIA
Utilization (indep. refs)	Shandong, China	-10.6	-14.5	-10	-8.4	Nov. 10	56.57% Oilchem

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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(Updates Anas entry in first table, Mundys entries in first and third with latest data.)

--With assistance from Julian Lee, Prejula Prem, Bill Lehane, Laura Hurst and Sherry Su.

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https://newsroom.aaa.com/2023/11/aaa-thanksgiving-holiday-travel-period-forecast/

55.4 Million Americans Expected to Travel for Thanksgiving

This year's holiday forecast is a 2.3% increase over last year, third highest since 2000

Aixa DiazMedia Relations Manager ADiaz@national.aaa.com

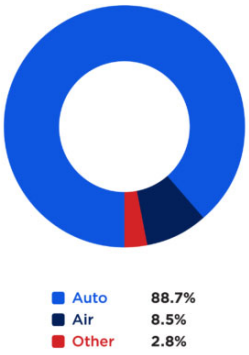
11/13/2023

WASHINGTON, DC (November 13, 2023) – AAA projects 55.4 million travelers will head 50 miles or more from home over the Thanksgiving holiday travel period*. This year's Thanksgiving forecast is an increase of 2.3% over last year and marks the third-highest Thanksgiving forecast since AAA began tracking holiday travel in 2000. The top two years were 2005 and 2019, respectively.

"For many Americans, Thanksgiving and travel go hand in hand, and this holiday, we expect more people on the roads, skies, and seas compared to 2022," said Paula Twidale, Senior Vice President of AAA Travel. "Travel demand has been strong all year, and AAA's Thanksgiving forecast reflects that continued desire to get away and spend time with loved ones."

AAA 2023 Thanksgiving Travel Forecast

Share of Travelers by Mode



Number of Travelers by Mode

	Auto	Air	Other	Total
2023 (forecast)	49.13M	4.69M	1.55M	55.37M
2022	48.30M	4.40M	1.40M	54.10M
2019	49.93M	4.581M	1.49M	55.99M
Growth* (2022 to 2023)	1.7%	6.6%	10.9%	2.3%
Growth* (2019 to 2023)	-1.6%	2.5%	4.5%	-1.1%

*Percentages may differ due to rounding. | *Source:* S&P Global Market Intelligence

Most Thanksgiving travelers will drive to their destinations. AAA projects 49.1 million Americans will get behind the wheel, an increase of 1.7% compared to 2022. Drivers could be paying less for gas than last Thanksgiving when the national average was $3.58. This year, the national average peaked in mid-August at $3.87 and has been coming down since, despite global tensions causing ripples through the oil market.

AAA expects 4.7 million people will fly over Thanksgiving, an increase of 6.6% compared to 2022 and the highest number of Thanksgiving air travelers since 2005. Tuesday and Wednesday before Thanksgiving are the busiest air travel days ahead of the holiday and the most expensive. While Sunday is typically the busiest day to return home, AAA data shows Monday is also a popular day to fly back after Thanksgiving.

The number of people traveling by cruise, bus, and train over Thanksgiving is up nearly 11% over last year. AAA expects 1.55 million travelers will head out of town using these other modes of transportation, which took a huge hit during the pandemic but have rebounded nicely. "The cruise industry, in particular, has made a remarkable comeback," Twidale added. "Thanksgiving cruises are mostly sold out, with many travelers looking to spend the holiday at sea."

Best/Worst Times to Drive and Peak Congestion by Metro

INRIX, a provider of transportation data and insights, expects Wednesday, November 22, to be the busiest day on the roads during the Thanksgiving holiday travel period, with average travel times as high as 80% over normal in some metro areas. INRIX recommends leaving in the morning or after 6 p.m. to avoid the heaviest holiday congestion.

“The day before Thanksgiving is notoriously one of the most congested days on our roadways. Travelers should be prepared for long delays, especially in and around major metros,” said Bob Pishue, transportation analyst at INRIX. “Knowing when and where congestion will build can help minimize holiday traffic frustrations. We advise drivers to use traffic apps, local DOT notifications, and 511 services for real-time updates.”

Please note – the times listed below are for the time zone the metro is located in. For example, Atlanta routes = ET and Los Angeles routes = PT.

Overall Busiest Day to Drive

Date	Time	Compared to Typical
Wednesday, Nov 22	2:00 – 6:00 PM	11.44%

Best and Worst Times to Drive

Date	Worst Travel Time	Best Travel Time
Wednesday, Nov22	2:00 – 6:00 PM	Before 11:00 AM
Thursday, Nov 23	11:00 AM – 3:00 PM	Before 10:00 AM, After 5:00 PM
Friday, Nov 24	12:00 – 4:00 PM	Before 11:00 AM, After 7:00 PM
Saturday, Nov 25	3:00 – 5:00 PM	Before 12:00 PM
Sunday, Nov 26	3:00 – 5:00 PM	Before 12:00 PM

Peak Congestion by Metro

Metro	Route	Peak Congestion Period	Est. Travel Time	Compared to Typical
Atlanta	Birmingham to Atlanta via I-20 E	Friday, 5:00 PM	4 hours 2 minutes	54%
Boston	Boston to Hyannis via Pilgrim Hwy S	Thursday, 3:30 PM	1 hour 58 minutes	54%
Chicago	Chicago to Milwaukee via I-94 W	Wednesday, 4:00 PM	2 hours 1 minute	18%
Denver	Fort Collins to Denver via I-25 S	Friday, 5:45 PM	1 hour 37 minutes	27%
Detroit	Detroit to Grand Rapids via I-96 W	Wednesday, 2:15 PM	3 hours 8 minutes	35%
Houston	San Antonio to Houston via I-10 E	Sunday, 4:45 PM	4 hours 2 minutes	38%
Los Angeles	Los Angeles to Bakersfield via I-5 N	Wednesday, 4:30 PM	2 hours 59 minutes	88%
Minneapolis	Rochester to Minneapolis via US-52 E	Friday, 5:30 PM	1 hour 56 minutes	15%

New York	**Jersey Shore to New York vis Garden St Parkway N**	**Sunday, 11:15 AM**	**1 hour 51 minutes**	**64%**
Portland	**Cannon Beach to Portland via Sunset Highway E**	**Sunday, 2:45 PM**	**1 hour 59 minutes**	**36%**
San Diego	**Palm Springs to San Diego via I-15 S**	**Sunday, 4:45 PM**	**2 hours 39 minutes**	**24%**
San Francisco	**Monterey to San Franciso via Santa Cruz Hwy N**	**Sunday, 7:00 PM**	**3 hours 10 minutes**	**63%**
Seattle	**Seattle to Bellingham via I-5 N**	**Wednesday, 3:30 PM**	**2 hours 39 minutes**	**71%**
Tampa	**Tampa to Orlando via I-4 E**	**Thursday, 8:15 AM**	**1 hour 55 minutes**	**36%**
Washington, DC	**Washington, DC to Baltimore via Balt/Wash Pkwy N**	**Wednesday, 2:00 PM**	**1 hour 13 minutes**	**71%**
SOURCE: INRIX				

Holiday Booking Prices

This holiday season, travelers are generally paying less for domestic trips compared to last year and more for international vacations. The one exception is airfare, which is slightly more expensive for domestic flights this season and a bit lower for international flights. Here's a breakdown of average booking prices for November and December, according to AAA data.

FLIGHTS

- The average price for a domestic flight is $681, up 5% from 2022.
- The average price for an international flight is $1,231, down 5.7% from last year.

HOTELS

- The average price for a domestic hotel stay is $598, down 12% from 2022.
- The average price for an international hotel stay is $772, up 5% from last year.

RENTAL CARS

- The average price for a domestic rental car reservation is $590, down 20% from 2022.
- The average price for an international rental car reservation is $696, up 9% from last year.

CRUISES

- The average price for a domestic cruise is $1,507, down 12% compared to 2022.
- The average price for an international cruise is $2,902, up 24% from last year.

TOURS

- The average price for a domestic tour is $1,058, down 15% compared to 2022.
- The average price for an international tour is $1,208, up 21% from last year.

Top Holiday Destinations

Warm weather destinations, theme parks, tourist attractions, historic sites, and cruise port cities top the list of domestic and international destinations this holiday season.

DOMESTIC	INTERNATIONAL
Orlando, FL	Cancun, Mexico
Fort Lauderdale, FL	Mexico City, Mexico
Miami, FL	Punta Cana, Dominican Republic
Anaheim, CA	Bahrain
Tampa, FL	Rome, Italy
New York City, NY	Montego Bay, Jamaica
Las Vegas, NV	Nassau, Bahamas
Honolulu, HI	Bali & Papua New Guinea
Maui, HI	Paris, France
San Diego, CA	London, England

Holiday Forecast Methodology

Travel Forecast

In cooperation with AAA, S&P Global Market Intelligence developed a unique methodology to forecast actual domestic travel volumes. The economic variables used to forecast travel for the current holiday are leveraged from S&P Global Market Intelligence's proprietary databases. These data include macroeconomic drivers such as employment, output, household net worth, asset prices including stock indices, interest rates, housing market indicators, and variables related to travel and tourism including gasoline prices, airline travel, and hotel stays. AAA and S&P Global Market Intelligence have quantified holiday travel volumes going back to 2000.

Historical travel volume estimates come from DK SHIFFLET's TRAVEL PERFORMANCE/Monitor[SM]. The PERFORMANCE/Monitor[SM] is a comprehensive study measuring the travel behavior of U.S. residents. DK SHIFFLET contacts over 50,000 U.S. households each month to obtain detailed travel data, resulting in the unique ability to estimate visitor volume and spending, identify trends, and forecast U.S. travel behavior, all after the trips have been taken.

The travel forecast is reported in person-trips. In particular, AAA and SPGMI forecast the total U.S. holiday travel volume and expected mode of transportation. The travel forecast presented in this report was prepared the week of October 9, 2023.

***Thanksgiving Holiday Travel Period**

For the purposes of this forecast, the Thanksgiving holiday travel period is defined as the five-day period from Wednesday, November 22 to Sunday, November 26.

About AAA

Started in 1902 by automotive enthusiasts who wanted to chart a path for better roads in America and advocate for safe mobility, AAA has transformed into one of North America's largest membership organizations. Today, AAA provides roadside assistance, travel, discounts, financial and insurance services to enhance the life journey of 64 million members across North America, including 57 million in the United States. To learn more about all AAA has to offer or to become a member, visit AAA.com.

About S&P Global

S&P Global (NYSE: SPGI) provides essential intelligence. We enable governments, businesses and individuals with the right data, expertise and connected technology so that they can make decisions with conviction. From helping our customers assess new investments to guiding them through ESG and energy transition across supply chains, we unlock new opportunities, solve challenges and accelerate progress for the world. We are widely sought after by many of the world's leading organizations to provide credit ratings, benchmarks, analytics and workflow solutions in the global capital, commodity, automotive markets. With every one of our offerings, we help the world's leading organizations plan for tomorrow, today. For more information, visit www.spglobal.com.

About DKSA

DK SHIFFLET boasts the industry's most complete database on U.S. resident travel both in the U.S. and worldwide. Data is collected monthly from a U.S. representative sample, adding over 60,000 traveling households annually and is used daily by leading travel organizations and their strategic planning groups. DK SHIFFLET is an MMGY Global company.

About INRIX

Founded in 2004, INRIX pioneered intelligent mobility solutions by transforming big data from connected devices and vehicles into mobility insights. This revolutionary approach enabled INRIX to become one of the leading providers of data and analytics into how people move. By empowering cities, businesses, and people with valuable insights, INRIX is helping to make the world smarter, safer, and greener. With partners and solutions spanning across the entire mobility ecosystem, INRIX is uniquely positioned at the intersection of technology and transportation – whether it's keeping road users safe, improving traffic signal timing to reduce delay and greenhouse gasses, optimizing last mile delivery, or helping uncover market insights. Learn more at INRIX.com.

China Country Analysis Brief

Last Updated: November 2023
Next update: November 2024

Independent Statistics and Analysis
U.S. Energy Information Administration

www.eia.gov
U.S. Department of Energy
Washington, DC 20585

The U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy (DOE), prepared this report. By law, our data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government. The views in this report do not represent those of DOE or any other federal agencies.

Overview

Table 1. China energy indicators, 2021

	Coal	Natural gas	Petroleum and other liquids	Nuclear	Renewables
Primary energy production (quads)	94.0	7.5	8.6	4.2	20.7
Primary energy production (percentage)	70%	6%	6%	3%	15%
Primary energy consumption (quads)	96.2	13.4	30.9	4.2	20.5
Primary energy consumption (percentage)	58%	8%	19%	3%	12%
Generation (billion kWh)	5105.6	245.3	12.0	407.5	2474.9
Generation (percentage)	63%	3%	<1%	5%	29%

Data source: U.S. Energy Information Administration, *International Energy Statistics,* and estimates
Note: Generation does not include biomass and waste. Total may not equal 100% due to independent rounding. Quads=quadrillion British thermal units; kWh=kilowatthours.

- China was the most populous country in 2022. However, with a declining population for the first time since 1961, India's population surpassed China's in 2023, according to United Nations estimates.[1] China's GDP growth slowed to 3% in 2022[2], in part, due to COVID-19 lockdowns that slowed economic activity and effected energy demand. In 2023, even though COVID-19 restrictions have been lifted, weaker retail sales, industrial output, and investments combined with a declining housing market has reduced the likelihood that China will reach its 5% growth target without government action. In August, Barclays reduced its forecast for China's 2023 GDP growth to 4.5%.[3]
- In 2021, China was the top energy producer and consumer in the world, primary energy production grew by more than 6%, and energy production across sources grew. The fastest-growing energy sources year-over-year were nuclear (11%), renewables (9%), and natural gas (8%). Energy consumption grew by almost 6%; natural gas (12%), nuclear (11%), and renewables (8%) grew the most.[4]
- In 2022, non-fossil fuels accounted for 49% of total installed electricity generation capacity, most of which came from hydroelectric (16%), solar (15%), and wind (14%).[5]
- Higher crude oil and condensate production in 2022 pushed total petroleum and other liquids production to a record high, at 5.1 million barrels per day. [6]
- China's liquefied natural gas (LNG) imports decreased by 20% in 2022, moving China down a spot to the second-highest global LNG importer, behind Japan.[7]

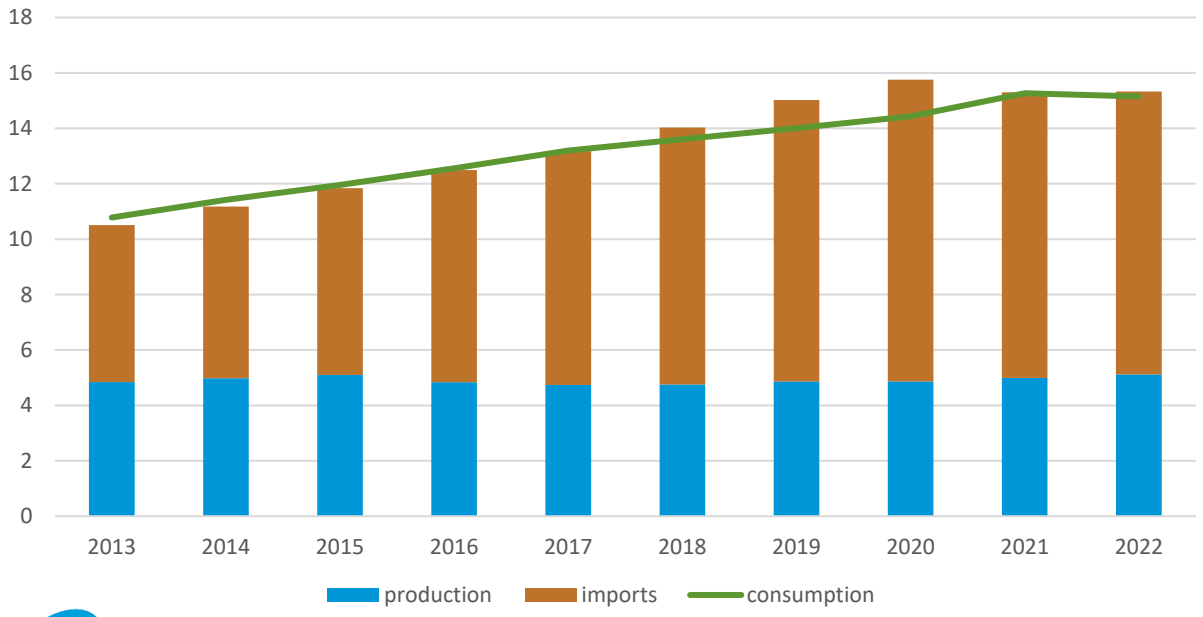
Petroleum and Other Liquids

- China was the fifth-highest petroleum and other liquids producer in the world in 2022. Increases in capital expenditures by China's national oil companies (CNOOC, Sinopec, and PetroChina), prompted by the government increasing the importance of energy security, aided in a production increase of 130,000 barrels per day (b/d) in 2022 (Figure 1). Crude oil and condensate made up 80% of total liquids production in 2022.[8]
- Sinopec's capital expenditures for 2023 ($23 billion) were 12% lower than in 2022. Sinopec's domestic crude oil production target is 688,000 b/d, and its total crude oil production (domestic

and overseas) target is 768,000 b/d for 2023. The total production target is relatively flat (-0.02%) compared with 2022.[9]

- CNOOC's planned capital expenditures for 2023 are approximately $14.3 billion, a slight increase (1%) from the previous year. CNOOC's production target is 1.8 million barrels of oil equivalent per day (BOE/d) in 2023, which accounts for 70% of total dometic production. Net production targets increase to approximately 1.9 million BOE/d in 2024 and 2.0 million BOE/d in 2025. CNOOC has four projects scheduled to come online in 2023, which they expect to have a total peak production of 48,500 b/d.[10]
- PetroChina's capital expenditures decreased 11% to $33 billion in 2023. PetroChina's crude oil production target is 2.5 million b/d, which is a slight increase (<1%) from 2022. However, the company is trying to raise refining throughput 7% from 2021 to 3.5 million b/d.[11]

Figure 1. China's petroleum and other liquids production, consumption, and imports, 2013–2022

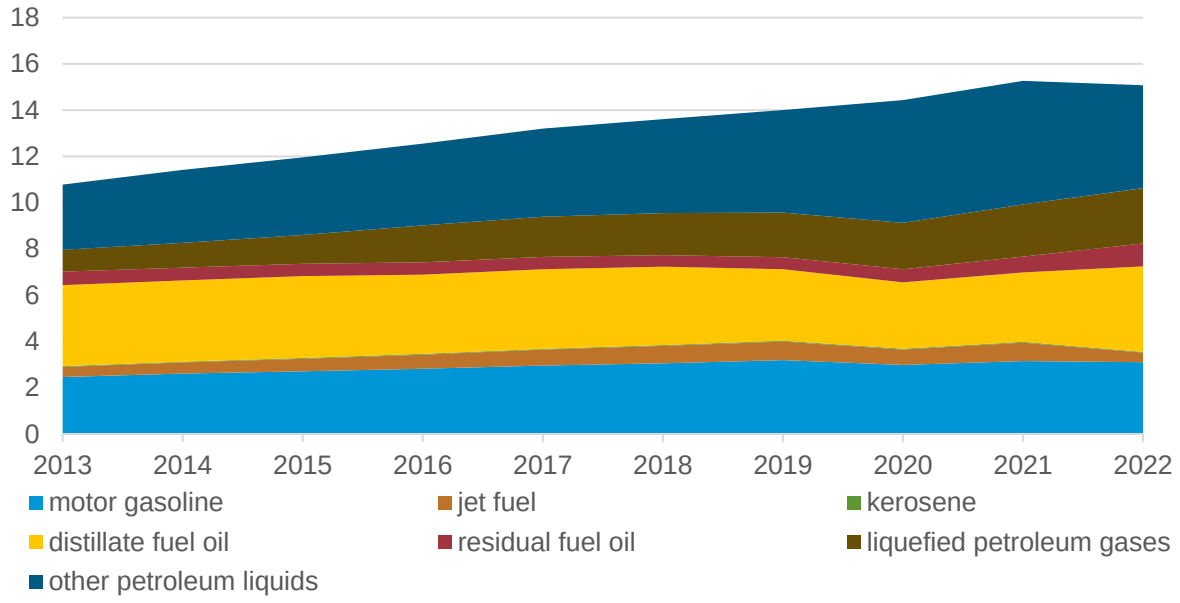


Data source: U.S. Energy Information Administration, *International Energy Statistics, Short-Term Energy Outlook,* and Global Trade Tracker

- China was the second-highest consumer of petroleum and other liquids in the world in 2022. China's petroleum and other liquids consumption fell by 120,000 b/d in 2022—the first decrease in demand since 1997. In 2022, China's consumption decreases were mainly driven by decreased demand in jet fuel (48%) and kerosene (9%). However, since COVID-19 restrictions were lifted in early 2023, demand has increased, and we expect it to continue to increase through 2024. [12]

Figure 2. China's refined petroleum products consumption, 2013–2022

million barrels per day



Data source: U.S. Energy Information Administration, *International Energy Statistics*

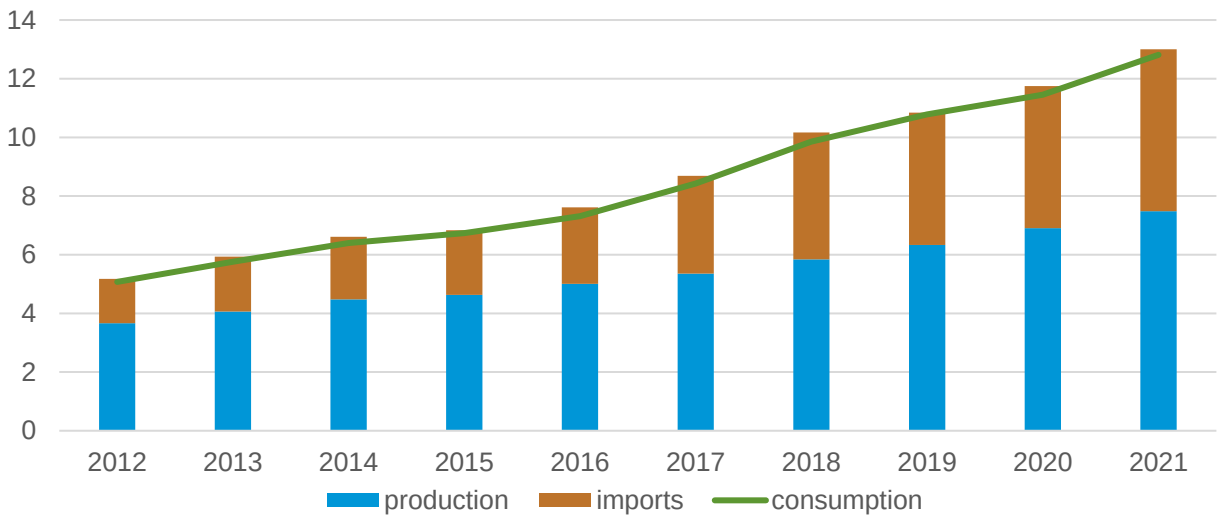
- China's total refinery capacity as of June 2023 was 19.8 million b/d. An additional 1.1 million b/d of capacity will be added by 2026. The 430,000 b/d Local Yulong project is the largest addition and starts operations in early 2025. The Panjin refinery, at 323,000 b/d of capacity, is the second-largest addition, and operations are slated to start in 2026.[13]
- China's refineries processed 13.5 million b/d in 2022—a 3.4% decline from 2021 and the first decrease in throughput since 2001.[14]
- China's refining industry is prioritizing integration of petrochemicals with the refineries. The initiative to integrate is meant to add long-term flexibility to deal with excess refining capacity. The shift is apparent across both state-owned and local companies because several refining projects are currently underway that have a significant petrochemical component.[15] As projects come online, feedstock production, such as naphtha and liquid petroleum gases (LPG), will increase.[16]

Natural Gas

- China has increased its annual natural gas production every year since 1989. In 2022, natural gas production growth in China slowed to 3%. Natural gas production totaled 7.7 trillion cubic feet (Tcf), a record high, according to the National Bureau of Statistics of China.[17]

Figure 3. China's natural gas production, consumption, and imports, 2012–2021

trillion cubic feet



Data source: U.S. Energy Information Administration, *International Energy Statistics.*

- PetroChina's target for natural gas production in 2023 is 4.9 Tcf, approximately 5% higher than in 2022. They accounted for 58% of China's natural gas production in 2022.[18]
- CNOOC has two new natural gas projects, Bozhong 19-6 Phase I and Shenfu Block Mugua Zone, that are scheduled to come online in 2023. CNOOC projects a peak production to total 87 billion cubic feet annually for the projects.[19]
- Sinopec's natural gas production reached 661 billion cubic feet in the first half of 2023, a nearly 8% increase for the same period in the previous year.[20] Sinopec also received certification for 1 Tcf of proven natural gas reserves in its Sichuan Basin discovery, bringing proven reserves to 5.5 Tcf in the region.[21]
- China's natural gas consumption peaked in 2021 at 12.8 Tcf.[22] In 2022, natural gas consumption declined by 1%, the first decline since 1990, according to the International Energy Agency. The decline in demand is attributed to several factors, including COVID-19 policy restrictions, slow economic growth, and high LNG prices. The largest drop in demand was in the electric power sector, where increased renewable capacity and coal production reduced natural gas-fired generation.[23]
- China's 14th Five-Year Plan set a target for LNG and natural gas storage capacity to reach approximately 2.0 Tcf–2.1 Tcf by 2025, which is more than double its storage capacity at the beginning of 2023.[24]

Table 3. China's existing regasification terminals

Project name	Owners	Peak output (billion cubic feet per year)	Start year

Guangdong Dapeng LNG	CNOOC (33%); Guangdong Province Consortium (31%); BP (30%); HK & China Gas (3%); Hong Kong Electric (3%)	327	2006
Shanghai Wuhaogou LNG	Shenergy (100%)	72	2008
Fujian LNG	CNOOC (60%); Fujian Investment and Development Co (40%)	303	2009
Shanghai Yangshan LNG	Shenergy Group (55%); CNOOC (45%)	288	2009
Dalian LNG	PipeChina (75%); Dalian Port (20%); DalianConstruction Investment Corporation (5%)	288	2011
Jiangsu Rudong LNG	CNPC (55%); Pacific Oil and Gas (35%); Jiangsu Guoxin (10%)	480	2011
Jovo Dongguan	Jovo Group (100%)	48	2012
Zhejiang Ningbo LNG (1-2)	CNOOC (51%); Zhejiang Energy Company (29%); Ningbo Power (20%)	288	2012
Caofeidian (Tangshan) LNG	CNPC (51%); Beijing Enterprises GroupCompany (29%); Hebei Natural Gas (20%)	480	2013
Tianjin PipeChina LNG	PipeChina (100%)	288	2013
Zhuhai LNG	CNOOC (30%); Guangdong Energy (25%); Guangzhou Gas Group (25%); Local companies (20%)	168	2013
Hainan Yangpu LNG	PipeChina (65%); China Energy Group Haikong New Energy (35%)	144	2014
Shandong (Qingdao) LNG	Sinopec (99%); Qingdao Port(1%)	336	2014
Hainan Shennan LNG	Hainan CNPC Shennan Petroleum Technology Development (90%); Hainan Fushan Oil and Gas Chemical (10%)	14	2014
Guangxi Beihai LNG	PipeChina (80%); Guangxi Beibu Gulf Port Group (20%)	288	2016
Qidong LNG (1-3)	Xinjiang Guanghui Petroleum (100%)	144	2017
Jieyang (Yuedong) LNG	PipeChina (100%)	96	2018
Diefu LNG (Shenzhen)	PipeChina (70%); Shenzhen Energy Group (30%);	192	2018
Tianjin Sinopec LNG	Sinopec (98%); Tianjin Nangang Industrial Zone Developemnt Co (2%)	288	2018
Zhoushan ENN LNG	ENN (90%); Prism Energy (10%)	240	2018
Fangchenggang LNG	PipeChina (51%); Guangxi Beibu Gulf PortGroup (49%)	29	2019
Shenzhen Gas LNG	Shenzhen Gas (100%)	38	2019
Jiangsu Yancheng Binhai LNG	CNOOC (100%)	144	2022
Jiaxing Pinghu LNG	Jiaxing Gas Group (51%); Hangzhou Gas (49%)	48	2022
Qidong LNG 4	Xinjiang Guanghui Petroleum (100%)	96	2022
Hong Kong Offshore LNG	Castle Peak Power Company Limited (70%); Hongkong Electric Co., Ltd. (30%)	293	2023
Huizhou LNG	Guangdong Energy Group (100%)	293	2023
Total		**5,715**	

Data source: International Gas Union, *2023 World LNG Report Annual Report 2022*

Note: LNG=liquified natural gas

Table 4. Regasification terminals under construction in China

Project name	Owners	Peak output (billion cubic feet per year)	Start year
Chaozhou Huafeng LNG	Sinoenergy (55%); Chaozhou Huafeng Group (45%)	48	2023
Chaozhou Huaying LNG	Huaying Investment Holding Group (50%); Sinopec Natural Gas Co Ltd (50%)	288	2023
Jiangsu Guoxin Rudong LNG	Jiangsu Guoxin (95%); Jiangsu Yangkou Port (5%)	144	2023
Jieyang (Yuedong) LNG 2	PipeChina (100%)	96	2023
Jiangsu Yancheng Binhai LNG 1 expansion	CNOOC (100%)	144	2023
Shandong (Qingdao) LNG 3	Sinopec (99%); Qingdao Port(1%)	192	2023
Sinopec Longkou LNG	Sinopec Gas (50%); Hengtong Logistics (32%); Longkou port (18%)	312	2023
Tangshan LNG 1	Suntien Green Energy (100%)	240	2023
Tianjin Nangang LNG 1	Beijing Gas (100%)	91	2023
Tianjin Sinopec LNG 2	Sinopec (98%); Tianjin Nangang Industrial Zone Developemnt Co (2%)	231	2023
Wenzhou Huagang LNG	Huafeng Grop (100%)	144	2023
Wenzhou LNG	Sinopec (41%); Zhejiang Energy Group (51%); Local firms (8%)	144	2023
Yantai LNG	Shandong Poly-GCL Pan-Asia International Energy Co., Ltd. (100%)	283	2023
Zhangzhou LNG 1	PipeChina (60%); Fujian Investment and Development Co (40%)	144	2023
Zhuhai LNG 2	CNOOC (30%); Guangdong Energy (25%); Guangzhou Gas Group (25%); Local companies (20%)	168	2023
PipeChinaLongkou Nanshan LNG	PipeChina (60%); Nanshan Group (40%)	240	2024
Tianjin PipeChina LNG 2	PipeChina (100%)	288	2024
Tianjin Nangang LNG 2	Beijing Gas (100%)	96	2024
Wuhu LNG	Huaihe Energy (100%)	72	2024
Yangjiang LNG	Guangdong Yudean Power (100%)	134	2024
Zhangzhou LNG 2	PipeChina (60%); Fujian Investment and Development Co (40%)	144	2024
Tianjian PipeChina LNG 3	PipeChina (100%)	312	2025
Shanghai LNG	Shenergy Group (60%); Zhejiang Energy (20%); CNOOC (20%)	144	2025
Qidong LNG 5	Xinjiang Guanhui Petroleum (100%)	240	2025
Tianjin Nangang LNG 3	Beijing Gas (100%)	48	2025
Xiexin Huidong Jiangsu Rudong LNG	Pacific Energy (49%); Xiexin Oil and Gas (26%); Huidon Investment (25%)	144	2025
Yingkou LNG	China Urban Rural Energy (75%); Hebei Shenneng Industry Group (25%)	298	2025

Zhejiang Ningbo LNG 3	CNOOC (51%); Zhejiang Energy Company (29%); Ningbo Power (20%)	288	2025
Zhoushan ENN LNG 3	ENN (90%); Prism Energy (10%)	240	2025
Jiangsu Ganyu (Huadian) LNG	China Huadian (51%); Lianyungang Port Group (20%); SK (14%); BP (10%); JERA (5%)	144	2026
Total		**5,504**	

Data source: International Gas Union, *2023 World LNG Report*
Note: LNG=liquified natural gas

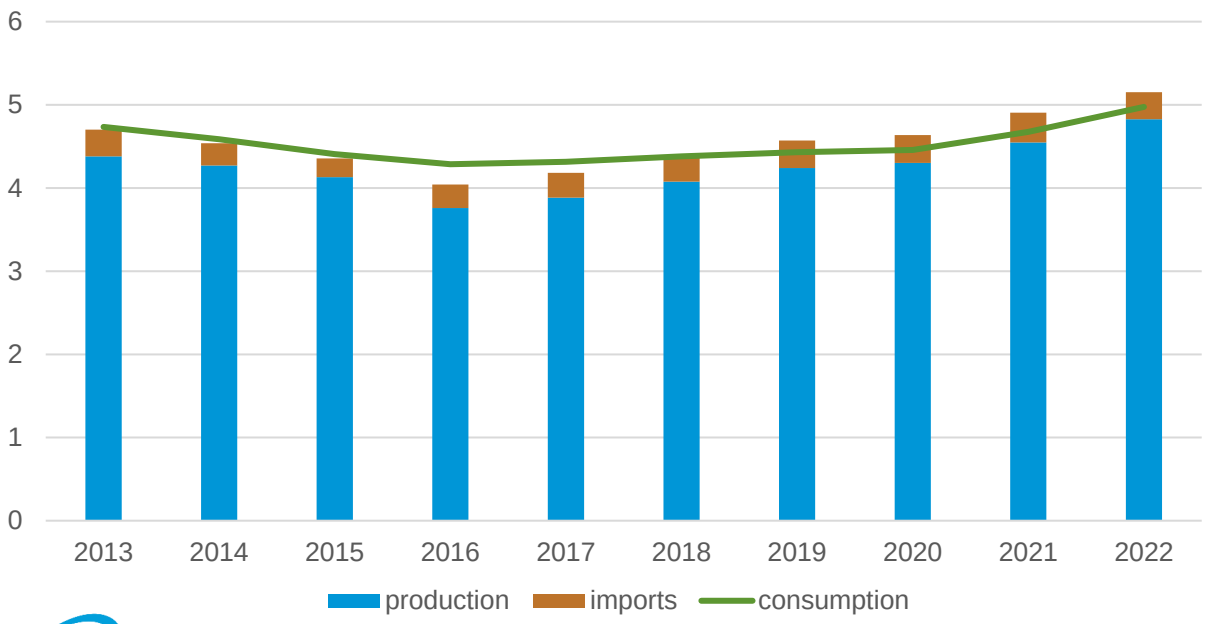
- China's regasification capacity is the fastest growing in the world. In 2022, China had 5.7 Tcf of existing regasification terminals (Table 3) with a 63% utilization rate, and it had approved an additional 14 regasification projects, 5 of which have started construction (4 new constructions and 1 expansion).[25] China has 5.5 Tcf of regasification capacity under construction with operational start dates between 2023 and 2026 (Table 4).[26]
- China is responsible for 37% of known global carbon-offset LNG trades. Carbon-offset trades are deals that allow sellers and buyers to offset the emissions of a cargo through the financing of projects that remove an equivalent amount of emissions elsewhere. China holds a carbon-neutral sales and purchase agreement between PetroChina and Shell in support of this initiative.[27]

Coal

- China, the world's top coal producer, increased production 6% to hit a record-high 4.8 billion short tons in 2022 (Figure 5). Coal production rose in response to global market prices spiking in October 2021.[28]
- China's coal consumption increased by 6% in 2022 to just shy of 5 billion short tons in 2022. Coal consumption was affected by China's real estate market decreasing 5%, lowering demand for coal for steel and cement production. These decreases were mostly offset by a severe, multi-month heatwave that caused droughts and, consequentially, lowered hydropower. However, coal-fired generation offset the loss of hydropower. China accounted for 53% of global coal consumption in 2022.[29]
- Although total coal production increased 6% in 2022, coal-fired generation increased only by 1% because much of the increase in coal output had a lower heat value. As a result, more coal was used to generate about the same amount of electricity.[30]
- Coal for non-power uses, including gasification of coal for synthetic fuels, plastics, and fertilizers, grew by 7%.

Figure 4. China's coal production, consumption, and imports, 2013–2022

billion short tons



Data source: U.S. Energy Information Administration, *International Energy Statistics* and International Energy Agency, *World Energy Statistics*

- China added 19.5 GW of coal power capacity in 2022, despite pledging to reduce coal consumption.[31] Additionally, construction of coal projects that started in 2022 will add 50 GW of capacity which is over 50% more than capacity that started construction in 2021. There were 106 GW of new coal power capacity granted permits in 2022, a 360% increase from 2021. The majority of the capacity is in the Guangdong, Jiangsu, Anhui, Zhejiang, and Hubei provinces.[32]

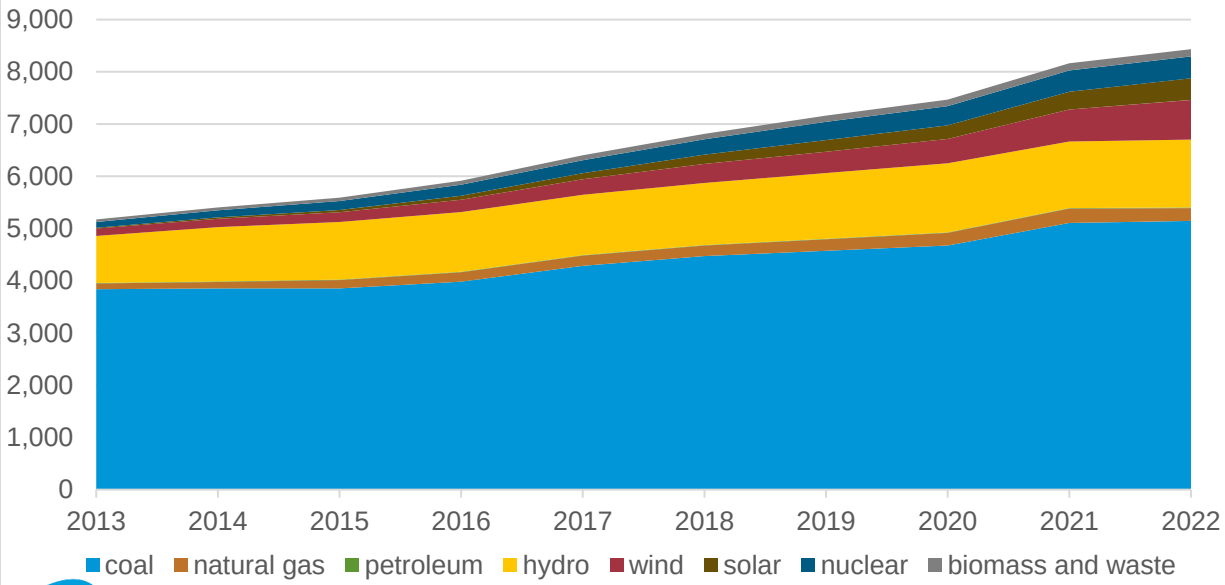
Electricity

- China plans to reach its CO_2 emissions peak by 2030 and to reach carbon neutrality by 2060. As part of this goal, China plans to bring the total installed wind and solar capacity to 1,200 GW by

2030.[33] At the end of 2022, wind and solar had a combined installed capacity of 758 GW. In 2023, China is on track to add 95 GW to 120 GW of solar, and as of May 2023, 61 GW had already been added.[34] BloombergNEF forecasts China will add 64 GW of installed wind capacity, 56 GW onshore and 8 GW offshore, in 2023.[35]

- China's electricity generation growth slowed to 3% in 2022. Fossil fuels accounted for 64% of all generation, 2% less than in 2021. Coal, which accounted for the largest share of all generation (61%), and petroleum-fired generation both increased slightly from 2021. However, natural gas-fired generation decreased by 11%, mainly due to to elevated natural gas prices. In 2022, natural gas-fired generation decreased for the first time since 2002.[36]

Figure 5. China's generation by source, 2013–2022



Data source: U.S. Energy Information Administration, *International Energy Statistics* and estimates

- Renewable generation, including hydropower, increased by the largest percentage in 2022.
  - Wind generation increased the most in 2022, rising 24% from 2021. It's share of total generation also increased, from 8% to 9%.
  - Solar generation increased by 22% from 2021 and increased its share of total generation from 4% to 5%.
  - Hydropower generation increased by 2%, despite droughts that hindered generation. However, at 1,300 terawatthours, total hydropower was still slightly lower than its previous peak in 2020.[37]
- China is adding energy storage as part of its goal to reach peak carbon emission by 2030.[38]
  - China is adding pumped-storage hydropower facilities to help maintain grid resilience with increasing wind and solar power capacity. At 50 GW, China has 30% of operational global

capacity. An additional 89 GW of capacity is currently under construction, and another 276 GW of capacity are in various stages of developement.[39]

  - China is investing in battery storage and plans to add approximately 100 GW of storage capacity by 2030.[40]

- China had 56 GW of installed nuclear capacity in 2022. As of October 2023, 26 GW of capacity were under construction and are expected to be operational by 2028 (Table 5). An additional 50 GW are in the early stages of development, according to the World Nuclear Association.[41]
- China's installed power capacity in 2022 was 2,594 GW, a 10% increase from 2021. Renewables added 151 GW of capacity in 2022, which accounted for 45% of total capacity and the majority of new capacity added (63%). Hydropower capacity increased by 16% to 414 GW. Solar increased by 15% to 393 GW, and wind grew by 11% to 365 GW. Fossil fuels added 87 GW of capacity.[42]

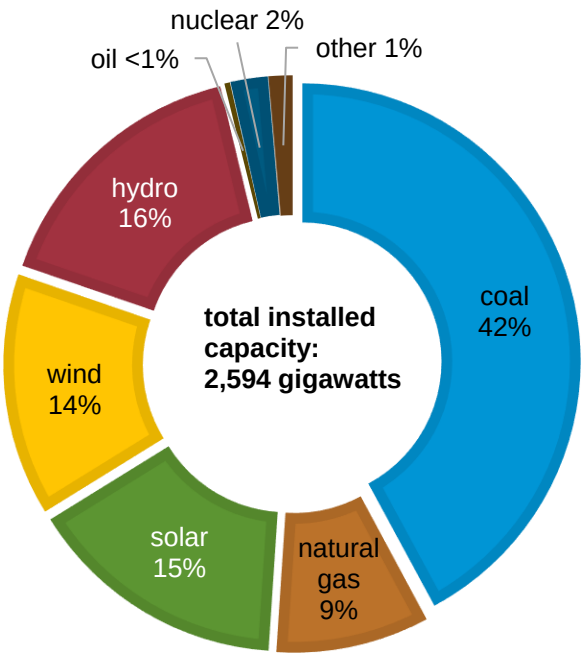
Table 5. China's under construction nuclear power reactors, 2023

Project name	Province	Capacity (megawatts)	Operator	Expected start
Xiapu 1	Fujian	600	CNNC	2023
Xiapu 2	Fujian	600	CNNC	2026
Zhangzhou 1	Fujian	1212	Guodian & CNNC	2024
Zhangzhou 2	Fujian	1212	Guodian & CNNC	2025
Huizhou Taipingling 1	Guangdong	1200	CGN	2025
Huizhou Taipingling 2	Guangdong	1202	CGN	2026
Lufeng 5	Guangdong	1200	CGN	2028
Fangchenggang 4	Guangxi	1180	CGN	2024
Changjiang 3	Hainan	1200	Huaneng & CNNC	2026
Changjiang 4	Hainan	1200	Huaneng & CNNC	2027
Changjiang SMR 1	Hainan	125	CNNC	2025
Tianwan 7	Jiangsu	1200	CNNC	2026
Tianwan 8	Jiangsu	1200	CNNC	2027
Xudabao 3	Liaoning	1200	CNNC, Datang	2027

Xudabao 4	Liaoning	1200	CNNC, Datang	2028
Haiyang 3	Shandong	1250	SPIC	2027
Haiyang 4	Shandong	1250	SPIC	2027
Shidaowan 1	Shandong	1500	SPIC & Huaneng	2024
Shidaowan 2	Shandong	1500	SPIC & Huaneng	2025
Cangnan/San'ao 2	Zhejiang	1150	CGN	2026
Cangnan/San'ao 2	Zhejiang	1150	CGN	2027
Sanmen 3	Zhejiang	1250	CNNC	2027
Sanmen 4	Zhejiang	1250	CNNC	2028
Total:		**26,031**		

Data source: World Nuclear Association Note: MW=megawatt.

Figure 6. China's installed electricity generating capacity by type, 2022



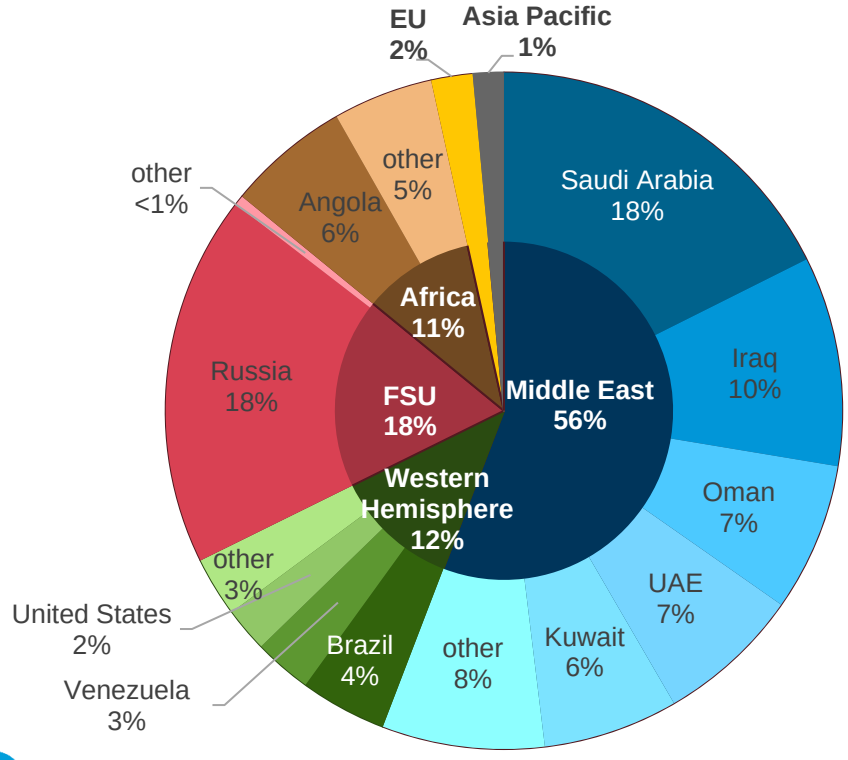
Data source: U.S. Energy Information Administration, *International Energy Statistics* and estimates
Note: Numbers may not equal 100% due to independent rounding.

Energy Trade

Petroleum and other liquids

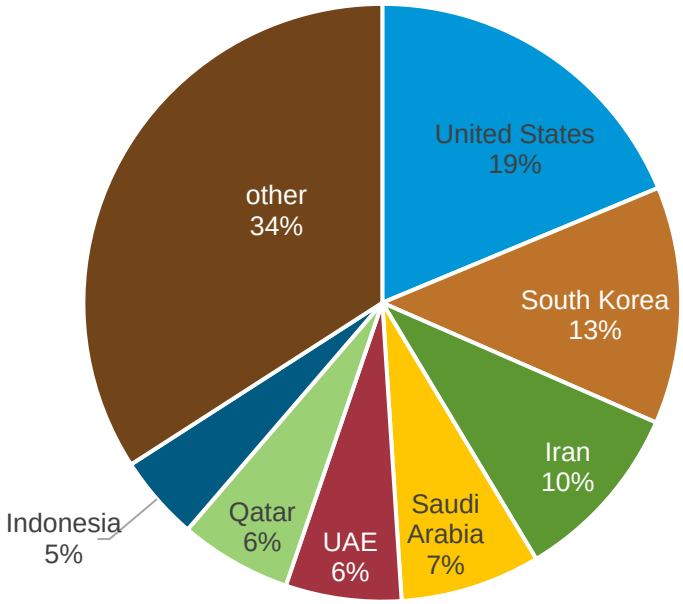
- Chinas's crude oil imports decreased for the second year in a row: a 1% decrease to 10.2 million b/d in 2022 from 10.3 million b/d in 2021. Despite a significant increase in crude oil imports at the end of 2022, lower fuel demand and shrinking refining margins caused the decline in annual crude oil imports. The increase at the end of the year is attributed to lower prices on crude oil from Saudi Arabia and Iran, as well as independent refiners needing to use their quotas before the end of the year.[43]
- Nearly all of China's crude oil imports arrive via seaborne shipments (97%), and the rest come via pipeline.[44] The state-owned China National Petroleum Corporation purchases approximately 800,000 b/d from Rosneft through the Eastern Siberai-Pacific Ocean pipeline in the first quarter of 2023.[45]
- Saudi Arabia and Russia were the two top sources of crude oil imports for China in 2022, both accounting for an 18% share of total imports.[46] However, sanctions and a pricecap imposed on Russia's crude oil in early 2023 has led to large discounts on crude oil from Russia. Because of these lower prices, Russia overtook Saudi Arabia in 2023 as China's top source of crude oil imports (China has not agreed to the pricecap).[47]
- The largest increases in crude oil imports in 2022 compared with 2021 from China's top suppliers are:
  - Crude oil imports from Iran doubled from approximately 281,000 b/d to 561,000 b/d in 2022.[48]
  - Crude oil imports from Venezuela increased 52% from approximately 177,000 b/d to 270,000 b/d in 2022.[49]
  - Crude oil imports from the United Arab Emirates increased 40% from 480,000 b/d to 674,000 b/d in 2022.[50]
  - Crude oil imports from Russia increased 8% from just below 1.6 million b/d to over 1.7 million b/d in 2022.[51]
- China's petroleum product imports decreased by 8% to 2.4 million b/d. Imports from the United States, the top source of China's petroleum product imports, increased 15% from 2021. A significant portion of imports came from the Middle East; however, China imports petroleum products from a diverse group, and only two countries (the United States and Saudi Arabia) account for shares that exceed 10%.[52]

Figure 7. China's crude oil and condensate imports by source, 2022



Data source: Vortexa and Global Trade Tracker
Note: Total may not equal 100% due to independent rounding. FSU=former Soviet Union.

Figure 8. China's petroleum product imports by source, 2022

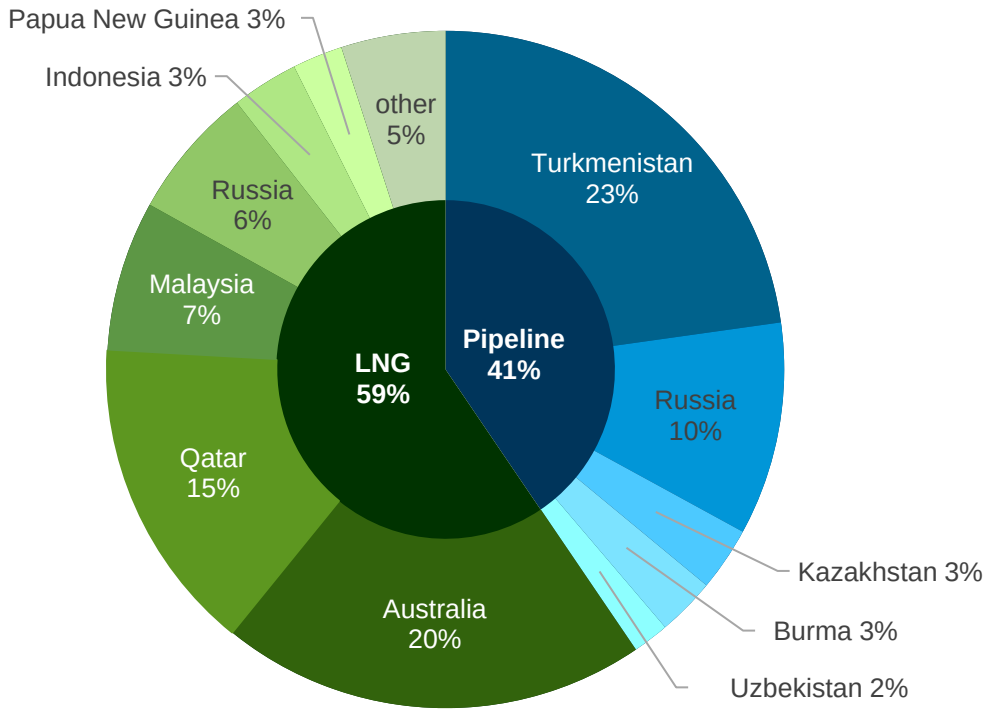


Data source: Vortexa
Note: Total may not equal 100% due to independent rounding. FSU=former Soviet Union.

Natural gas

- China imported 3.0 Tcf of LNG in 2022, a 20% decrease compared with 3.8 Tcf in 2021. As a result, China was the second-highest global LNG importer in 2022. This decline is the result of increased domestic production, high spot prices, and decreased demand.[53]
- China's total natural gas imports decreased in 2022. A decrease in LNG imports reduced its share of total natural gas imports to 59%, a 6% decrease from 2021 (Figure 9). Pipeline import volumes remained relatively flat in 2022, but its share of total natural gas imports increased. [54]
- Turkmenistan surpassed Australia as China's top source of natural gas imports. Australia dropped to second in overall natural gas imports but was the top source of LNG imports. Pipeline imports from Russia grew by 43%, and Russia's LNG imports increased by 46%, making Russia the third-largest source of natural gas imports to China in 2022. [55]

Figure 9. China's natural gas imports by source, 2022



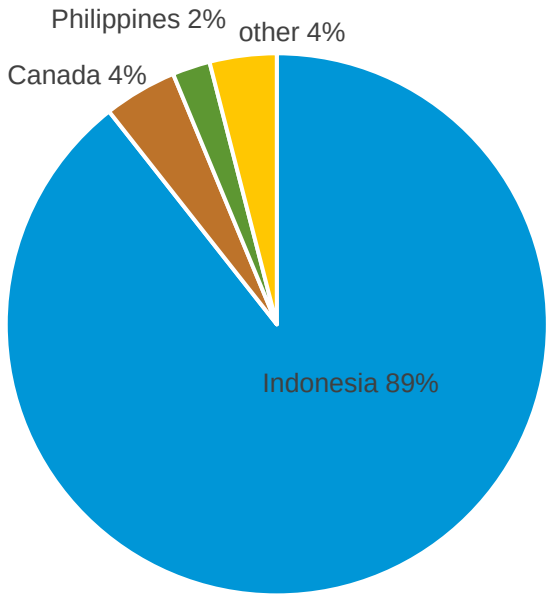
Data source: Energy Institute, *Statistical Review of World Energy* and GIIGNL, *Annual Report 2023*
Note: Numbers may not equal 100% due to independent rounding. LNG=liquefied natural gas.

Coal

- China's coal imports decreased by approximately 40% in 2022, from 357 million short tons in 2021 to just over 210 million tons,[56] as a result of higher domestic production in response to higher prices.[57] Lower coal imports resulted in China moving to the second-largest coal importer by weight in the world, behind India.[58]

- Indonesia remained China's top source of coal imports. Although Indonesia's coal imports declined in 2022 by about 25 million short tons compared with 2021, its share of coal imports to China increased from 64% in 2021 to 89% in 2022. Most of the increase replaced coal from Russia and Mongolia. Russia's share of coal imports fell from 17% in 2021 to 1% in 2022, and Mongolia's share declined to 0% in 2022, compared with 6% in 2021.[59]
- Australia, which was one of China's top coal suppliers prior to 2021, did not export any coal to China in 2022 because of China's unofficial coal ban on supplies from Australia. However, China lifted the ban and started importing coal again in 2023. From April through July of 2023, China's average coal imports were over 5 million short tons per month from Australia.[60]

Figure 10. China's coal imports by source, 2022



Data source: Global Trade Tracker
Note: Numbers may not equal 100% due to independent rounding.

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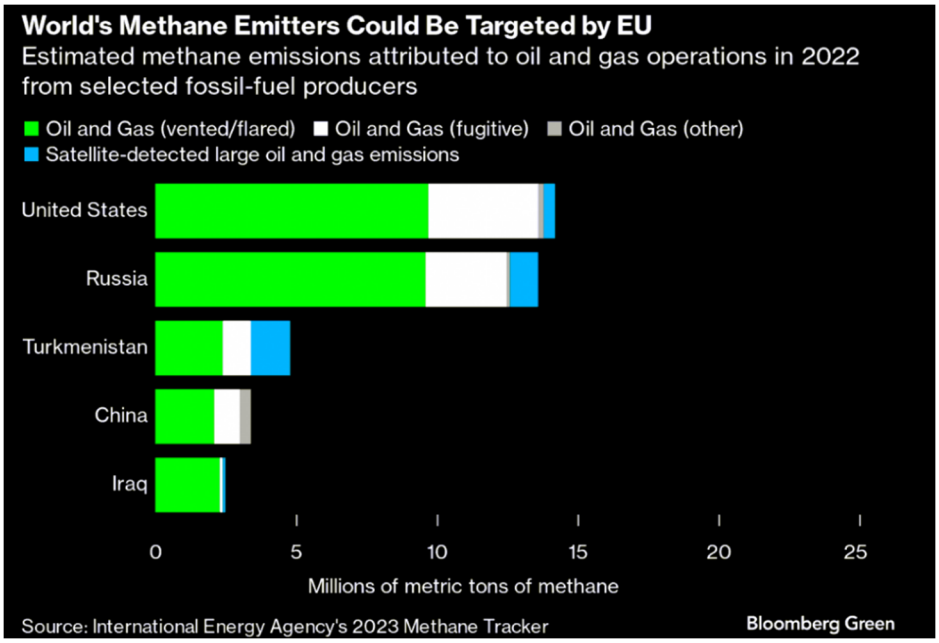
Europe Warns Methane Polluters as Bloc Pushes to Slash Emissions
2023-11-14 04:00:00.2 GMT

By John Ainger
(Bloomberg) -- The European Union aims to slash methane emissions by clinching a deal that could have global ramifications if major energy importers are targeted over leaks of one of the most potent greenhouse gases.
Negotiators from parliament and member states will enter what is likely to be the final round of talks Tuesday over the shape of rules cracking down on methane leaked into the atmosphere by the energy sector. The goal is to get a deal in place before the COP28 climate summit in Dubai later this month.
The rules will require energy companies to regularly inspect infrastructure such as pipelines and oil wells to look for methane — a gas that's 80 times more powerful than CO2 over a 20-year time frame — escaping into the atmosphere. Differences remain over how big a leak needs to be to require repair, while some EU states are concerned about the implications for energy security.
Applying the rules to imports over the next decade would be one step beyond regulations in countries like Canada and Nigeria. That could have an outsized impact on the climate, because the 27-nation bloc relies on foreign supplies for over 90% of its oil and gas.
"We're watching you," Jutta Paulus, the Green lawmaker who is parliament's lead negotiator, said in a message to fossil fuel companies outside of the bloc. "We want to do something that's really meaningful for the climate."



If the EU were to apply the same level of ambition to imports as they do to domestically produced fossil fuel supplies, then global methane emissions in the oil and gas

sector could be reduced by at least 30%, according to Clean Air Task Force, a climate non-profit.

However, EU member states are concerned over the possible knock-on impact on the bloc's security of energy supplies at a time when it is shedding its dependency on Russian fossil fuel imports.

The European Commission, the bloc's executive branch, has floated gradually phasing in rules so that imports reach a "certain level of methane intensity performance" by the end of the decade, according to a document seen by Bloomberg News. The EU relies on Norway for around 44% of its pipeline gas and on the US for almost half of its liquefied natural gas.

Methane emissions from pipeline gas tend to be higher than for LNG, mainly due to activities in producing countries, according to Berkley Research Group. Algeria makes up around 17% of the EU's pipeline gas imports. Several super emitting events from the country have been tracked by satellites.

"As the world's largest natural gas importer, the EU can no longer outsource pollution while claiming climate leadership," said Flavia Sollazzo, senior director of EU Energy Transition at Environmental Defense Fund Europe. "The bloc's external 'methane footprint' is up to 8 times higher than its domestic emissions."

Scientists using satellite observations have consistently found that operators and governments significantly under report the climate impact of fossil fuels. A study published in Nature Communications in August found that observed methane releases from global oil and gas operations are 30% higher than estimates provided by countries to the United Nations.

Industry meanwhile is lobbying against stricter rules. Leak detection and repair thresholds being negotiated are equivalent to a fraction of a dairy cow's methane emissions, while other measures like quantifying emissions from subsea wells are unfeasible, according to the International Association of Oil & Gas Producers.

"The EU Methane Regulation is at risk of being impossible to implement by the European oil and gas industry because of certain requirements that are disconnected from reality," said Nareg Terzian, head of strategy and communications at the group. "Some requirements rely on technologies that do not exist. Others are entirely disproportionate."

--With assistance from Aaron Clark and Anna Shiryaevskaya.

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https://wam.ae/en/details/1395303215326
Mon 30-10-2023 10:39 AM

COP28 President says world must unite on climate action

ABU DHABI, 30th October, 2023 (WAM) -- Dr. Sultan bin Ahmed Al Jaber, Minister of Industry and Advanced Technology and COP28 President, addressed a record number of ministers and delegations from around the world at the opening session of Pre-COP, declaring that the international community needs to unite on climate action and that “we have to come through. We must unite. We must act. And we must deliver in Dubai.”

Pre-COP, taking place today and tomorrow in Abu Dhabi, is a preparatory meeting of ministers and negotiators ahead of COP28. This year’s event has seen record attendance, with 70 ministers and over 100 delegations coming together in the UAE capital, more than double the normal number of participants for a Pre-COP.

Acknowledging that “there are too many things out there dividing our world at this moment,” the COP28 President declared that “Now more than ever we need to unite on climate and deliver a clear message of hope, solidary, stability and prosperity. We need to show that the international community can deliver and send a clear signal that keeps 1.5 within reach.”

Al Jaber pointed out that before the Paris Agreement, the world was heading for more than four degrees of warming but is now on course for warming of two to three degrees, according to the latest reports, “We are heading in the right direction, but nowhere near fast enough,” he warned.

Parties “must do better” in formulating agreements on issues than they had done at previous conferences, Dr. Al Jaber stated. “We have no time to waste on disunity,” he warned. “We must look beyond short-term thinking; we must end the excuses and delays, and redefine our self-interest as a common interest.”

“Let this process prove that multilateralism still works. I believe we can fulfil our responsibility. I know that we must.”

The COP28 President reiterated the need to deliver a robust response to the Global Stocktake and put the world back on track on delivering the goals of the Paris Climate Agreement. He highlighted key areas of focus, including a strong mitigation outcome, a comprehensive adaptation agreement, and “groundbreaking solutions” on finance. “That includes delivering on the fund and funding arrangements for loss and damage,” he added. “What was promised in Sharm el Sheikh must be delivered in Dubai.”

“We need solid solutions for a 43 percent cut in emissions by 2030 because that is exactly what the science tells us,” Dr. Al Jaber said. On the issue of fossil fuels, he said, “I know there are strong views about the idea of including language on fossil fuels and renewables in the negotiated text. I need you to work together to come forward with solutions that can achieve alignment, common ground and consensus between all parties. We must be responsible. We must be pragmatic. And we must leave no-one behind.”

Updating the meeting on policy, the COP28 President said: “More than 20 oil and gas companies have answered COP28’s call to end methane emissions by 2030. And I see positive momentum as more are joining. And we are engaging with all high-emitting sectors, like heavy transportation, aluminium, steel and cement, to lay out credible decarbonisation plans.” On finance, Dr. Al Jaber emphasised the importance of ensuring capital flows to where it is most needed, notably the Global South and of rebuilding trust in developing nations.

Speaking to promises made, he stressed that “Old promises must be kept, like the 100-billion-dollar pledge. I am grateful for the work of Germany and Canada on this and their reassurances that things are now on track. But, as I stand here now, I still cannot say with certainty that has been delivered.”

He also outlined the importance of adaptation, calling for the Global Goal to be met, and stated that, “We must end deforestation and preserve natural carbon sinks… it is time for every nation to embed nature-positive investments in national climate strategies.”

The COP28 President reminded attendees that “the world is watching. Our nations, our communities, our families, our kids, they are all watching. So, let us unite.”

“We have the power; we must accept the responsibility,” he concluded, adding, “This process must not fail. We have to come through. We must deliver in Dubai.”

Esraa Esmail/ Rola AlGhoul

https://www.bbc.com/news/business-67430888

Price paid for offshore power to rise by over 50%

16th November 2023, 02:39 MST

By Simon Jack Business editor

The price paid to generate electricity by offshore wind farms has been raised by more than 50% as the government tries to entice energy firms to invest.

It comes after an auction for offshore wind projects failed to attract any bids, with firms arguing the price set for electricity generated was too low.

The government has lifted the amount it pays from £44 per MWh to a price up to £73.

It is hoped that more offshore wind capacity will lead to cheaper bills.

Companies have said that the cost of building wind farms has soared because of rising inflation and interest rates, while the maximum price they can charge for the electricity they generate has been relatively low.

Energy firms have told the BBC that electricity produced out at sea would remain cheaper and less prone to shock increases compared with power derived from gas-fired power stations.

The UK is a world leader in offshore wind and is home to the world's four largest farms, supporting tens of thousands of jobs, which provided 13.8% of the UK's electricity generation last year, according to government statistics.

But when the government revealed in September that no companies had bid for project contracts, plans to nearly quadruple offshore wind capacity from 13 gigawatts to 50 by 2030 - enough to power every home in the UK - were dealt a heavy blow.

The technology has been described as the "jewel in the UK's renewable energy crown", but firms have been hit by higher costs for building offshore farms, with materials such as steel and labour being more expensive.

According to energy companies, the government's failure to recognise the impact of higher costs led some firms to abandon existing projects, and all operators to boycott the most recent auction.

On Thursday, Claire Coutinho, the Energy Security Secretary, said: "We recognise that there have been global challenges in this sector and our new annual auction allows us to reflect this."

Why is the government paying energy firms?

The way the price guarantee between the government and energy companies works is that when market prices are lower than the set - or "strike" - price, the government makes up the difference.

When they are above that price, the generators pay the extra cash back to the government.

The strike price is only a guide, and could come in lower than that depending on how many companies bid in the auction.

But the price paid is only one part of the equation. The other is amount of electricity which the government will ensure is sold at a guaranteed price.

The contracts with electricity generators are based on 2012 prices, so will be higher when adjusted for inflation.

Industry sources have told the BBC that to make up for lost time this year and to hit its 2030 target, the government will need to attract bids for six to eight gigawatts of power every year for the next five years.

There is another huge problem in how the power produced out at sea is transported back to land. Hundreds of miles of pylons and underground cables will be required, many of which would, if built, cross privately-owned land.

The BBC understands Chancellor Jeremy Hunt will use his Autumn Statement to find ways to speed up this process by reclassifying such connections as critical national infrastructure, while also consulting on ways to compensate affected communities - including farmers - by offering discounts on energy bills.

"A combination of stick and carrot," as one industry source described it. "We can't continue to let small wealthy communities block energy developments for poorer but larger communities."

The measures will be part of a broader government ratification of an energy review conducted by the UK's electricity networks commissioner, Nick Winser, which laid out a series of recommendations to accelerate the connection of new power sources to the National Grid.

It is understood that the problem was thrown into very sharp relief when ministers were told that under current rules, a planned battery plant in Somerset might have to wait more than a decade to get connected to the electricity network.

https://www.db.com/news/detail/20220907-christian-sewing-s-keynote-at-the-handelsblatt-banken-summit-2022?language_id=1

News September 7, 2022

Christian Sewing's keynote at the Handelsblatt Banken Summit 2022

- Check against delivery -

Dear Mr Matthes, Ladies and Gentlemen,

I am delighted to be with you today at a time that is more challenging than anything I have experienced in more than 30 years of banking. While the Covid pandemic proved to be a temporary shock to the world economy, Russia's war against Ukraine has destroyed a number of certainties on which we built our economic system over the past decades.

- The brakes have been applied to globalisation and, in the face of major geopolitical tensions, it is unlikely to pick up its old momentum any time soon.
- As a result, many seemingly perfect global value and supply chains have been disrupted.
- The workforce, which for a long time was thought to be available without limit, has become a bottleneck factor worldwide.
- At the same time, electricity and gas have become scarce and extremely expensive. Energy is set to stay an expensive commodity in Europe for some time. This represents a structural competitive drawback and it is a threat to our economy. In the long term, we will need to respond with structural solutions.

These points are the most important reasons for soaring inflation. As a result, we will no longer be able to avert a recession in Germany.

Yet we believe that our economy is resilient enough to cope well with this recession – provided the central banks act quickly and decisively now. Right now many people still have their savings to fall back on to pay the higher prices; many companies are still sufficiently financed. But the longer inflation remains high, the greater the strain and the higher the potential for social conflict.

Three lessons

This combination of short and longer-term challenges seems unique at this point. And while it is essential we meet the short-term needs, we also have to explore what this means for our long-term ability to compete. The greatest complexity still lies ahead of us when we begin to draw the real lessons of the past few years. In my view, there are three main lessons:

Firstly, we have seen how dangerous it is for us in Europe to become too dependent on individual countries or regions. At the moment the main focus is on energy and raw material imports from Russia – and rightly so. We must do everything we can to ensure that our cars, our heating and our factories are not only able to run when an autocrat in the Kremlin is favourably disposed towards us. All efforts by politicians and companies to change this deserve unconditional support.

That is not enough, though. When it comes to dependencies, we also have to face the awkward question of how to deal with China. Its increasing isolation and growing tensions, especially between China and the United States, pose a considerable risk for Germany.

China is a cornerstone of our economy. About 8 percent of our exports go to China and 12 percent of our imports are from the country. More than a tenth of the sales of all DAX-listed companies are from China. At the latest during the pandemic it has become clear just how much our supply chains rely on China. Reducing this dependency will require a change no less fundamental than decoupling from Russian energy.

At the same time – and this is my second lesson – we need to tackle the climate crisis with much more resolve than to date. Climate change is already causing damage of gigantic proportions. In light of Covid and the war in Ukraine, the danger is that the topic will slip down the list of priorities. That would be the biggest mistake we could make, though.

Fighting the climate crisis is a generational task that will radically change the economy and society. Every company will have to face the issue – not just out of its responsibility to society, but to secure its own continued existence. Those who fail today to put sustainability firmly at the centre of their strategy will – in ten years – have trouble selling their products, finding employees or attracting investors. They will disappear from the market.

The third lesson, I believe, is that we have been under the illusion for the past 30 years that we could live forever in an ever more globalised world with no major conflicts and with steady growth. Francis Fukuyama has often been criticised for equating the end of the Cold War with the "end of history". But de facto we acted as if this thesis was correct; we have been acting as if the world was on its way to becoming one big village where everyone is interested in economic cooperation because, after all, everyone benefits from it. That has stopped being the case for some time now, though.

The truth is that 30 years of presumed calm will now be followed by a period of heightened volatility with economic uncertainty, regular crises and geopolitical conflicts that are also likely to drag on for decades. Trouble spots are not cut off from the rest of the world; they impact other regions in a number of ways. As such, we must come up with holistic solutions that take this degree of interplay into account. Dealing with this complexity will be a great challenge for us. Good risk management is the order of the day.

“We must not leave the playing field and with it the access to global capital markets largely to foreign banks. The past few months should have taught us this. In Germany, we must not allow ourselves to add a further dependency – access to finance – to our current dependencies on gas, raw materials and supply chains.”Christian Sewing, CEO

National feat of strength
Let us not delude ourselves: we certainly have our work cut out for us if we are to accomplish these three tasks – reducing dependencies, dealing with permanently higher volatility and driving the historic transformation of our economy. We will only succeed through a concerted joint effort, with politics, business and society all working closely hand in hand.
The financial sector must and can play a crucial role.

We need banks that are able to finance these mammoth tasks, while protecting their clients against risks and being reliable partners, accompanying clients worldwide.

And for this we need a domestic financial sector that stands on its own two feet and can assert itself against its global competitors. We must not leave the playing field and with it the access to global capital markets largely to foreign banks. The past few years should have taught us this. In Germany, we must not allow ourselves to add a further dependency – access to finance – to our current dependencies on gas, raw materials and supply chains.

We have the means to prevent this, but we still have much to do. As a financial sector, we have already achieved a lot: we are much more stable and resilient today than we were ten years ago. We are profitable. Our industry has foregone relatively little profit in the first half of the year and even managed to increase revenues. And the loan defaults that the industry faces in the coming months should remain manageable because banks have taken the necessary provisions.

Progress in the financial sector is far from sufficient
That is far from enough, though, if the German financial sector is to play a leading role in the long term. What we need is:

- For us banks to work harder at becoming even more efficient and focusing even more on clients, especially in digital services.
- We need reliable regulation that does not always create higher hurdles and tie up more capital than necessary – capital that is needed right now to finance the economy.
- And sooner or later we will also need consolidation, not nationally, but Europe-wide. Size counts in banking – and if we don't want to hand over the playing field to the Americans, Europe must create the right conditions for big banks. I can only repeat what I’ve said before: both the European banking union and the capital markets union are essential here.

The above points are not new, but they are becoming more urgent. We are actually very well equipped so there is no reason to talk ourselves down. We are operating in an economy that has shown enormous resilience and that will also navigate the upcoming recession – because corporate balance sheets are strong, and debt is low by international standards. This economy has great potential as long as we focus now on aligning ourselves for the long term and on how to minimise the threat of de-industrialisation: with less regulation, more courage and more pragmatism; this attitude is incredibly important.

And that goes for banks, too. We have proven banks can be part of the solution. We can do much more, though. Before the financial crisis of 2007, just 15 years ago, Europe's banks were more profitable than their competitors in the US. Since then, the Americans have unrelentingly left us behind. We could, of course, agonise over this. Instead, we should rather see it as an incentive to buck the trend. The dominance of American banks is no law of nature.

At Deutsche Bank, we are convinced that the way to achieve this is by being a strong partner to our clients. They need a bank that supports them in all kinds of environments, in all markets and all over the world. This is what we emphasised when we formulated our Global Hausbank aspiration. We have radically transformed our business since 2019 and strategically repositioned ourselves in line with this aspiration.

We are convinced that this strategy will be especially effective in volatile times – because now is the moment when advice and expertise are highly sought after.

And this does not apply to us alone. Despite all the differences between the banks in Germany, we have one thing in common: we were there for our clients during the pandemic, we were there for our clients when Russia invaded Ukraine and we continue to be there – in these volatile times that urgently call for sustainable transformation. We have regained a great deal of trust. Let us work together to create the conditions for renewed dynamic growth across our entire economy.

https://www.livingwagealberta.ca/news/the-alberta-living-wage-network-releases-2023-living-wages

The Alberta Living Wage Network releases 2023 Living Wages

A network of municipalities and community organizations are shedding light on the affordability and livability of Albertan communities.

Today the Alberta Living Wage Network (ALWN or “the Network”) in collaboration with 16 municipalities and organizations released new living wages for 2023.

- Brooks, $19.05
- Calgary, $23.70
- Canmore, $38.80
- Drayton Valley, $19.55
- Edmonton, $22.25
- Fort McMurray, $24.50
- Grande Prairie, $18.90
- High River, $21.70
- Jasper, $24.90
- Lac La Biche County, $21.60
- Lethbridge, $20.60
- Medicine Hat, $17.35
- Red Deer, $18.75
- Spruce Grove, $21.00
- St. Albert, $23.80
- Stony Plain, $21.10

The living wage is defined as the hourly wage a worker needs to earn to cover their basic expenses and have a modest standard of living once government transfers have been added and taxes have been subtracted. The calculation is based on the income needs of three household types: a two-parent family with two young children; a lone-parent family with one child; and a single individual. It assumes that each adult is working full-time hours and includes savings for unexpected costs, continuing education, child care, and a small amount which allows people to participate in the community.

Quotes:

“This year we have faced affordability challenges like nothing I’ve seen in my career. We have more than a hundred thousand people on the brink of losing their shelter and many people making trade-offs that they never thought they would have to make. But we also saw that the government’s affordability payments made a difference – albeit temporarily. It’s time for longer-term action that will help people right now.”

Meaghon Reid, Executive Director, Vibrant Communities Calgary and member of the Alberta Living Wage Network

“Despite increasing costs on just about everything – particularly shelter – we did see some things that put downward pressure on the living wages. Government affordability measures and the Canada Dental Benefit have helped families. What’s missing in Alberta is any real action on increasing minimum wage despite every single other province making increases.”

Ryan Lacanilao, Coordinator, Alberta Living Wage Network

“Our living wage commitment ensures our single parent employees don’t have to choose between paying for rent or food, our disabled employees don’t have to choose between paying for utilities or food and our younger employees don’t have to choose between paying for a winter jacket or food. Our organizational commitment allows our employees to not just survive but thrive in times of economic instability.”

Guirlene Joseph, The Dollar Detectives

“While we're new to the Living Wage Network, we've always felt strongly that paying a living wage is a fundamental component in building mutual respect and trust with our employees. We are grateful to be able to play our small part in creating a more reasonable employment income baseline. We also believe that happy people make good beer, which is a convenient result in our line of business.”

Brandon Hart, The Establishment Brewing Company

“By paying a living wage rate, Naiad Irrigation Systems is able to attract and retain the best employees who are motivated to work for the company. This is because employees who earn a living wage experience increased mental and physical health and economic well-being. Hiring great employees can help businesses retain or get great customers as they are more likely to provide excellent customer service and contribute to the company’s growth. Being a living wage employer is not only beneficial for the employees but also for the company’s growth and success.”

Myles Sidorak, Naiad Irrigation Systems

Resources:

- Learn more about how the living wages were calculated.
- View ALWN’s common questions and answers about living wages and how employers can get certified.

About the Alberta Living Wage Network

The Alberta Living Wage Network is a network of community organizations and municipalities with the goal of advancing a coordinated living wage movement in Alberta. The network assists communities in their annual living wage calculation and has certified more than 100 living wage employers in the province. For more information visit livingwagealberta.ca and follow @livingwageab on Twitter or Instagram.

https://news.gallup.com/poll/544415/personal-safety-fears-three-decade-high.aspx

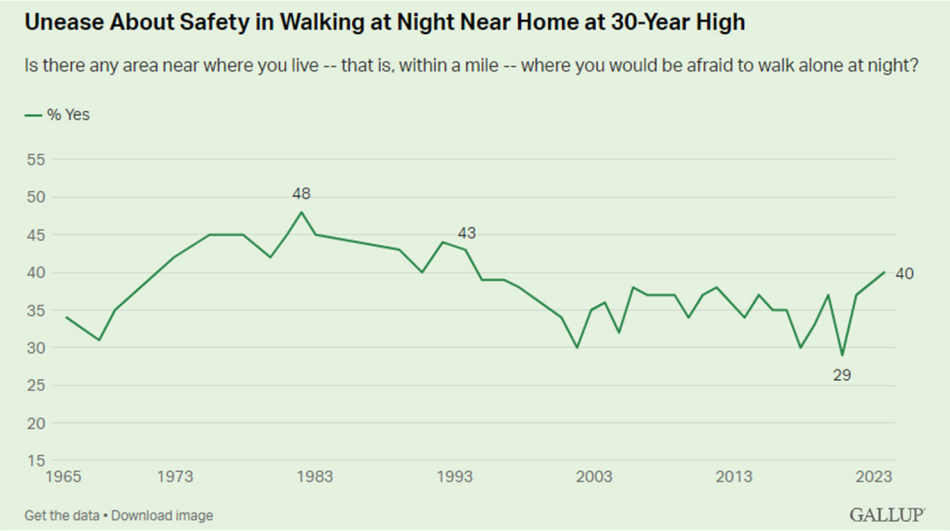
POLITICS
NOVEMBER 16, 2023

Personal Safety Fears at Three-Decade High in U.S.

BY **LYDIA SAAD**

- 40% are afraid to walk alone at night near home, highest in three decades
- Worry about being victimized by specific crimes remains near record highs
- Fear of crime deters most Americans from doing some routine activities

WASHINGTON, D.C. -- Forty percent of Americans, the most in three decades, say they would be afraid to walk alone at night within a mile of their home. This indicator of crime fears last reached this level in 1993, when, during one of the worst crime waves in U.S. history, 43% said they would be afraid. Between that year and 2021, an average of 35% of adults have feared for their safety within a mile of home, with the annual results ranging between 29% and 39%.



Gallup has measured Americans' sense of personal safety from crime using this question since 1965, finding a record 48% worried in January 1982. That was toward the end of another high-crime period and as an alarmingly high murder rate in New York City was garnering widespread attention.

The 29% low was recorded in October 2020, during the first year of the COVID-19 pandemic, when much of the country was still social distancing. However, by the following year it had bounced back to the pre-pandemic level of 37% before edging higher to 40% today.

The latest results are from Gallup's annual Crime poll, conducted Oct. 2-23, which also finds relatively high proportions of Americans rating the crime problem as serious and believing it has worsened over the past year.

As is typical, fear of walking alone at night is much higher among women (53%) than men (26%). Reflecting differences in the crime rates of the areas where people live, fear of crime is also higher among adults living in households earning less than $40,000 per year (49%) than among those earning $40,000 to $99,999 (39%) or $100,000 or more (31%). And it is higher among residents of cities (50%) than those living in suburbs (39%) or town/rural areas (30%).

Fear of Specific Crimes Remains at or Near Record-High Levels

The new poll also asks Americans how often they worry about experiencing various specific crimes. Consistent with prior years, the most common crime concern is being the victim of identity theft. Seventy-two percent of U.S. adults say they frequently or occasionally worry about this happening to them.

Additionally, half of U.S. adults worry about having their car stolen or broken into, while 44% worry about their home being burglarized when they aren't there. More than three in 10 worry about getting mugged (37%) or being attacked while driving (32%).

Slightly lower levels of concern are seen for being the victim of a hate crime (30%), getting murdered (28%) or being sexually assaulted (27%).

Americans' Worry About Specific Crimes

How often do you, yourself, worry about the following things -- frequently, occasionally, rarely or never?

	Frequently	Occasionally	Rarely/ Never	Frequently/ Occasionally
	%	%	%	%
Being the victim of identity theft	39	33	27	72
Having your car stolen or broken into	24	26	47	50
Your home being burglarized when you aren't there	19	25	55	44
Getting mugged	13	24	63	37
Being attacked while driving your car	12	20	66	32
Being a victim of a hate crime	14	16	70	30
Getting murdered	12	16	72	28
Being sexually assaulted	12	15	72	27

Oct. 2-23, 2023

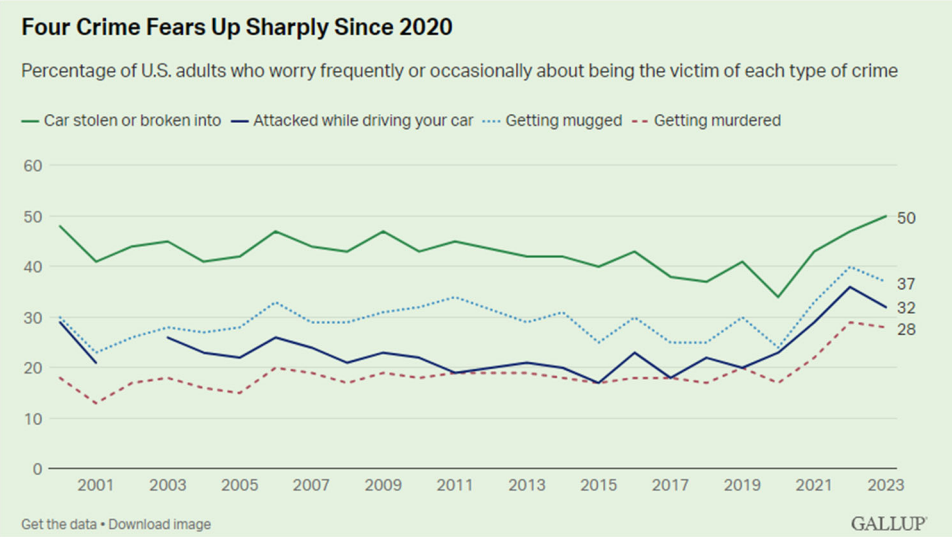
Get the data • Download image

GALLUP

The high points of public concern for nearly all of these crimes have been recorded in the years since 2020. The only exception is Americans' fear of having their home burglarized when they are not there, which reached its high point of 50% in 2006 and is currently 44%. Gallup has tracked public concern about these crimes almost every year since 2001.

Compared with before the pandemic, concern is up particularly sharply on four crimes. After peaking in 2022, Americans' fears of being mugged, murdered, or attacked while driving have dipped slightly this year but remain higher than at all earlier points in the

trend. Meanwhile, with car thefts up sharply in the U.S. this year, fear of having one's car stolen or broken into is at a record-high 50%, edging up from 47% a year ago.



Fear of Crime Limits Visiting Cities, Exercising Outdoors

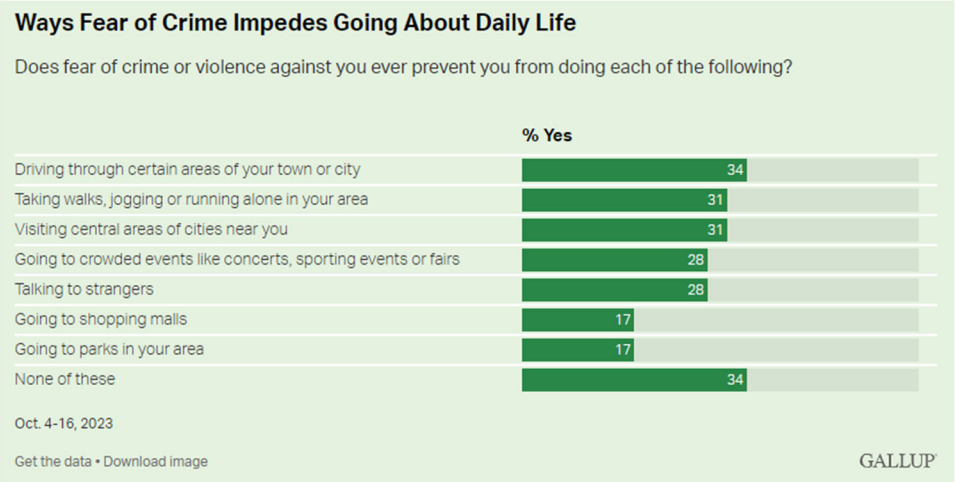
Some insights into how fear of crime affects individuals -- and, by extension, society -- come from a question included in an Oct. 4-16 Gallup Panel survey that asks Americans whether fear of crime or violence against them ever prevents them from doing various activities.

Fear of crime most commonly constrains people's mobility and possibly consumerism by preventing them from driving into certain areas of the town or city where they live -- 34% say they have ever avoided doing this. Relatedly, 31% say they avoid visiting central areas of nearby cities. Only compounding the potential damper crime puts on economic activity, 17% avoid going to shopping malls.

Some Americans' physical wellbeing is also jeopardized, as 31% say fear of crime has ever prevented them from taking walks, jogging or running alone in their area, and 17% say it keeps them from going to local parks.

Americans may also be missing out on entertainment or social interactions, as fear of crime prevents large segments from attending concerts and other crowded events (28%) and talking to strangers (28%).

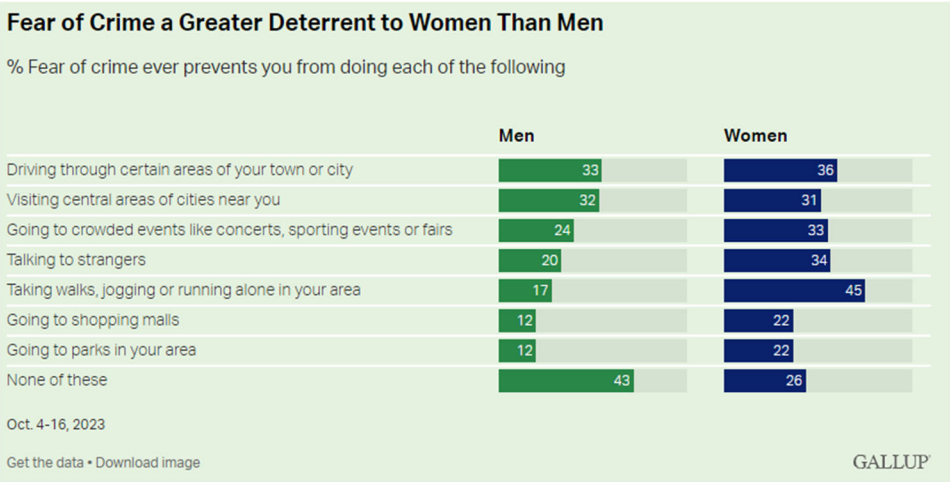
Respondents were shown a list containing these precautionary behaviors and asked to select all that apply to them. Overall, 66% of adults have avoided at least one of the activities due to fear of crime, while 34% say they have avoided none of them.



Crime Fears Are a Greater Deterrent to Women Than Men

Similar to the gender gap seen in fear of walking alone at night in one's local area, women are more likely than men to say fear of crime has ever prevented them from taking walks, jogging or running alone in their area. They are also significantly less likely to talk to strangers, go to shopping malls or parks, and to attend crowded events.

There are minimal to no differences by gender in reluctance to drive to certain areas of one's town or to visit central areas of nearby cities. Nevertheless, the net result is that men (43%) are far more likely than women (26%) to disregard the risk of crime when going about their lives.



Separately, the poll finds far more Americans saying they feel safer going to places like stores and parks during the daylight hours (80%) than feel just as safe after dark (19%). Women (87%) are a bit more likely than men (73%) to prefer venturing out during daylight, but large majorities of both groups feel this way.

Bottom Line

Whether because of sharp increases in violent crime during the pandemic or media coverage of other crimes, Americans' sense of security from crime has been rattled in recent years. That carries over into their attitudes today, reflected in a rise in Americans' fear of walking alone at night in their own area to a three-decade high, and their fear of being the victim of several violent crimes being the highest in trends since 2000.

Heightened fear of crime may be causing Americans to change their behaviors in ways that have profound effects on the nation's economy and social fabric. It could also influence their candidate or party preferences in the 2024 elections. Only 3% of Americans in October cited crime as the nation's "most important problem," far behind mentions of immigration, inflation and the economy in general. Yet, in March, crime ranked third among 15 issues in the amount Americans say they worry about each. It was also the third-highest-scoring issue in importance to registered voters in the 2022 elections. As such, crime seems to be a sleeper issue, but one that Americans care about when it's raised.

To stay up to date with the latest Gallup News insights and updates, follow us on X.

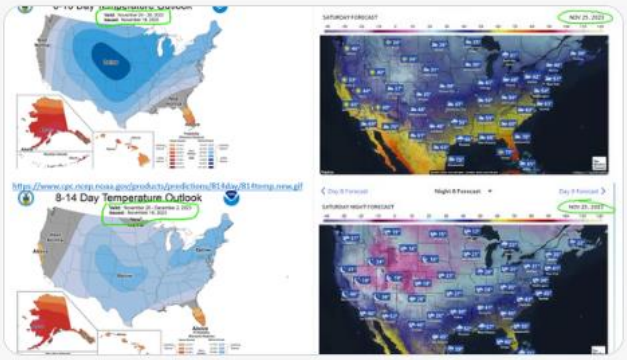
Dan Tsubouchi @Energy_Tidbits · 19h

It's for late Nov so colder than normal isn't bitterly cold, but colder than normal should still support #NatGas demand.

@NOAA updated 6-10, 8-14 day calls for colder than normal for almost all of US.

@weatherchannel Nov 25 fcast shows daytime high & nighttime lows.

#OOTT



7 26 5.4K

Dan Tsubouchi @Energy_Tidbits · 22h

Reminds why big Asian #LNG customers want diversity of supply.

In about a year or so, #LNGCanada 1.8 bcf/d Phase 1 should be starting with its approx 2-week shorter tanker transit time to Asia vs US Gulf Coast via Panama Canal.

#OOTT

> **S&P Global Commodity Insights LNG** @SPGCILNG · Nov 16
>
> #LNG vessels will likely have no choice but to participate in auctions to expedite their transit through the #PanamaCanal starting in December.
>
> Read more: okt.to/4daoxe

2 5 18 5.1K

Dan Tsubouchi @Energy_Tidbits · 10m

Too good to be true.

Last wk's floating #Oil storage 53.77 mmb was only wk <60 since Covid. Was revised +16.46 to still low 70.23.

11/17 was then +13.67 WoW to 84.10 mmb. Back in 80s after 6 wks in 70s.

Thx @Vortexa @business
#OOTT

103

Dan Tsubouchi @Energy_Tidbits · 14h

Big roadblock for Iraq/Kurdistan deal.

APIKUR (Kurd #Oil industry association) condition precedent is Production Sharing Contracts remain in force & governed by English law.

Iraq says IOCs must switch to Profit Sharing Contract.

#OOTT

https://www.apikur.uk/publications/statement-on-federal-government-of-iraq-goi-kurdistan-regional-government-krg-negotiations/

16 NOV 2023

Statement on Federal Government of Iraq (GOI) - Kurdistan Regional Government (KRG) Negotiations

November 17, 2023

Key Points:
- APIKUR notes the discussions between GOI and KRG officials represent a potentially positive step toward resumption of full production and exports.
- APIKUR members have communicated conditions precedent to resume full oil exports and remain committed to resolve outstanding issues.
- Production Sharing Contracts (PSCs) remain in force and are governed by English law with dispute resolution via international arbitration at the London Court of International Arbitration.

APIKUR notes the recent discussions between leaders from the GOI and KRG as a potentially positive step towards resuming oil exports via the Iraq-Türkiye Pipeline (ITP).

Representatives from APIKUR member companies were not invited and have not received any official communications of the meeting's outcomes.

APIKUR members have communicated the following conditions precedent to resume full oil production and exports:

- Any addendums must be agreed between the GOI, the KRG, and APIKUR member companies.
- There must be payment surety for past and future oil exports.
- Prospective oil sale payments to APIKUR member companies must be remitted directly to those companies.
- The APIKUR member companies' current commercial terms and economic model must be maintained.

APIKUR remains committed to swiftly resolve remaining issues to resume full production and export through ITP for the benefit of all parties and the people of Iraq. Under the status quo, losses continue to climb with more than $7 billion in export revenue lost since the pipeline closure in March 2023. The GOI is incurring over $1 million per day in financial penalties for not meeting its obligations under the ITP agreement.
- Ends -

About APIKUR:
APIKUR's objective and purpose is to promote the KRI as an attractive destination for international oil and gas companies, service providers and investors. In addition, APIKUR aims to advocate for and represent the common interests of its members, function as a joint and effective voice towards all relevant stakeholders whether in the KRI, or elsewhere, and provide a forum for its members to share appropriate public industry information and best practices.

For more information, visit www.apikur.uk

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> **Dan Tsubouchi** @Energy_Tidbits · Nov 13
>
> 
>
> Easier said than done.
>
> Iraq says Kurdistan Production Sharing Contracts with IOCs must be changed to Profit Sharing Contracts to fit within constitution....
>
> Show more

3 7 3.6K

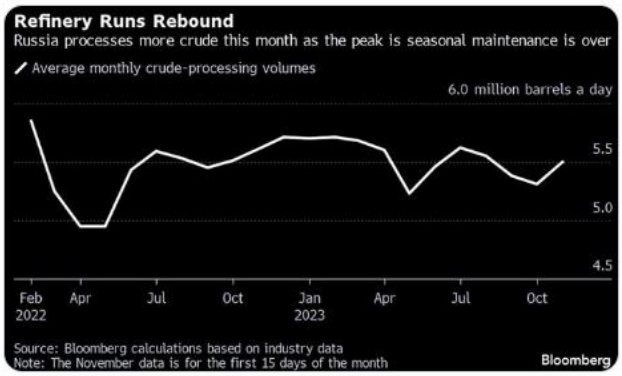
Dan Tsubouchi @Energy_Tidbits · 15h

Russian oil refineries processing more oil = less #Oil for export.

Russia refinery processed 5.55 mmb/d for Nov 9-15, +84,000 b/d vs early Nov.

Still not finished seasonal maintenance so oil processing volumes should go higher in Dec

Thx @ja_herron.
#OOTT



> **Dan Tsubouchi** @Energy_Tidbits · Nov 14
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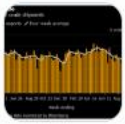
> 
>
> Russia #Oil shipments.
>
> 11/12 wk: -40,000 b/d to 3.2 mmb/d.
>
> But 4-wk average still 3.4 mmb/d so still over ...
> Show more

3 6 2.8K

Dan Tsubouchi @Energy_Tidbits · 21h

Doesn't look like smooth sailing!

#RayDalio's 5 main forces on the world ahead.

1. debt money economic force.
2. internal conflicts particular left/right populism.
3. geopolitical, most importantly US/China.
4. "*then of course, there's climate & its cost*".
5. technology

...
Show more

1 2 1.3K

Dan Tsubouchi @Energy_Tidbits · Nov 16

Heavy oil 101.

More diluents to Venezuela = More Venezuela #Oil exports

Chevron increasing Naptha (diluent) supply to blend with VEN heavy oil to bring to export quality.

Thx @mariannaparraga @ArathySom @LauraSanicola

#OOTT

https://www.reuters.com/business/energy/chevron-shipping-fuels-venezuelas-pdvsa-expansion-oil-swap-2023-11-16/?taid=6556aab24fbedc00019384f2&utm_campaign=trueAnthem:+Trending+Content&utm_medium=trueAnthem&utm_source=twitter

Chevron shipping fuels to Venezuela's PDVSA in expansion of oil swap

By Marianna Parraga, Laura Sanicola and Arathy Somasekhar
November 16, 20233:38 PM MSTUpdated 3 hours ago

HOUSTON, Nov 16 (Reuters) - U.S. oil firm Chevron Corp (CVX.N) has begun supplying fuel to Venezuela's state-run oil company PDVSA under Washington's approval of expanded deals with the South American country, three people familiar with the matter said on Thursday.

Chevron and PDVSA previously had stuck to a 2022 agreement to expand some operations that included a swap of Venezuelan crude for Chevron-provided diluents to their joint ventures and for repayment of debts owned by Venezuela. Last month, Washington broadly eased sanctions on the country's oil sector, paving the way for wider sets of exchanges.

Under terms that imply an expansion of the previous swap deal, Chevron has begun supplying PDVSA with fuel including naphtha and gasoline blend stock, one of the people said.

The first vessel under the arrangement arrived in Venezuela's Jose port this week carrying 450,000 barrels of heavy naphtha for PDVSA, according to tanker tracking data and a document see by Reuters.

A second tanker was being chartered this week to transport some 240,000 barrels of gasoline blend stock for November delivery, two of the sources added.

PDVSA did not reply to a request for comment. Chevron declined to comment on commercial matters and said the firm is committed to conducting business in compliance with all laws and regulations where it operates.

Earlier this month, Chevron began inspecting PDVSA's facilities at the El Palito port, close to the country's capital and a traditional hub for motor fuel imports, in preparation for the deliveries, according to one of the sources.

It was not immediately clear if the fuel shipments will be compensated with Venezuelan crude or under a different payment mechanism. The October license clears the way to make and receive payments from Venezuela, and to procure goods and services for oil and gas projects.

Reporting by Marianna Parraga and Arathy Somasekhar in Houston, and Laura Sanicola in Washington. Additional reporting by Sabrina Valle; Editing by David Gregorio
Our Standards: The Thomson Reuters Trust Principles.

2 · 8 · 2.9K

Dan Tsubouchi @Energy_Tidbits · Nov 16

"*... the "next China" is still China. We invite friends from business communities across the world to invest and deepen your footprint in China*" Xi.

Xi realizes has to reverse outflows of foreign direct investment. See 👇 11/08 tweet.

worth a read!
#OOTT
...
Show *more*

> **Dan Tsubouchi** @Energy_Tidbits · Nov 13
> Xi's key challenge is 👇 stopping outflow of investment in China.
>
> Will Xi's $2,000 a plate dinner with US CEOs in San Fran drum up confidence to invest in China without any meaningful change in policy?
> ...
> Show more

1 · 6 · 11 · 7.1K

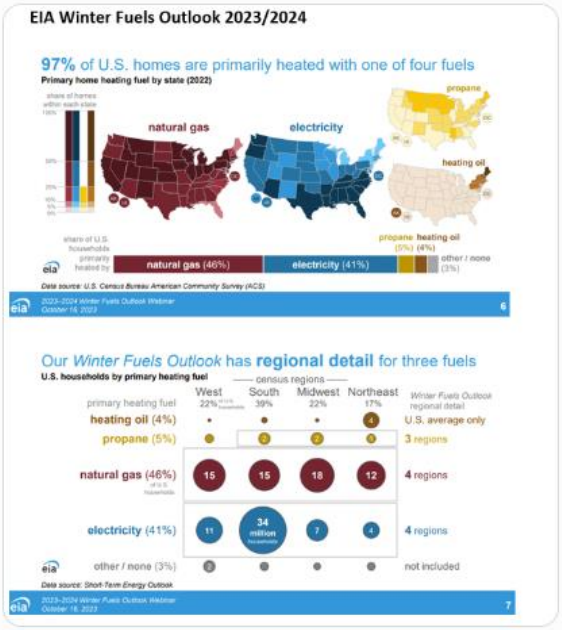
Dan Tsubouchi @Energy_Tidbits · Nov 16

62% of US homes winter heated directly (46%) and indirectly (16%) by #natgas

All direct fuel % splits unchanged YoY ie. #natgas 46%, electricity 41%, etc.

@EIAgov, #natgas fuels 40% of electricity for home heating ie. indirect 16%

#OOTT



> **Dan Tsubouchi** @Energy_Tidbits · Nov 16
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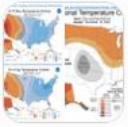
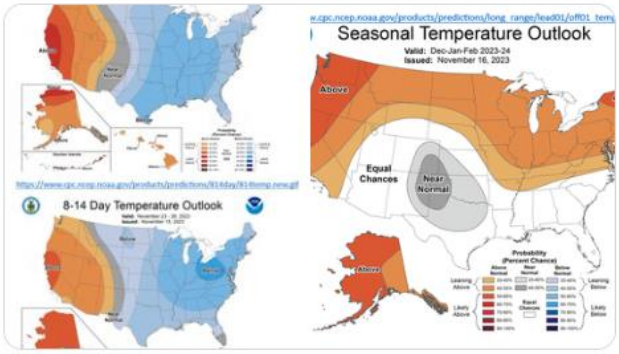
> 
>
> Weather forecasts are far from 100% but a warmer than normal Dec/Jan/Feb more than offsets a colder than normal late Nov.
>
> Thx @NOAA....
>
> Show more

4 7 5.7K

Dan Tsubouchi @Energy_Tidbits · Nov 16

Weather forecasts are far from 100% but a warmer than normal Dec/Jan/Feb more than offsets a colder than normal late Nov.

Thx @NOAA.
#OOTT



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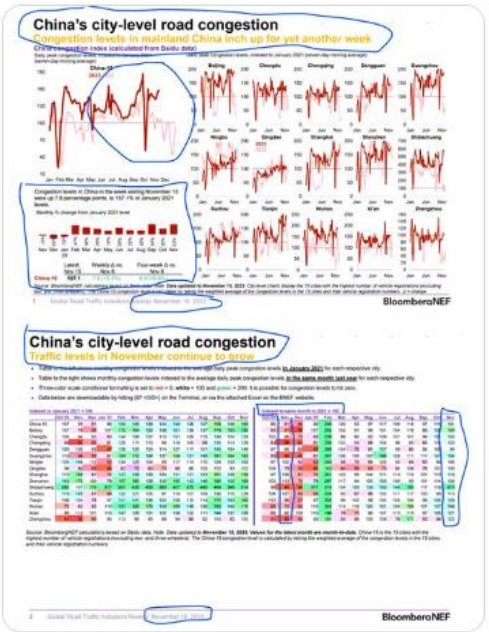
Dan Tsubouchi @Energy_Tidbits · Nov 16

China Baidu city-level road congestion for Nov MTD 2023 Top 15 cities are 131% of Nov 2021 levels. Nov 2022 was 81% of Nov 2021 levels.

Positive but still a way to go.

1st Chinese New Year post Covid restrictions Feb 2023 was 240% of Feb 2021.

Thx @BloombergNEF. #OOTT



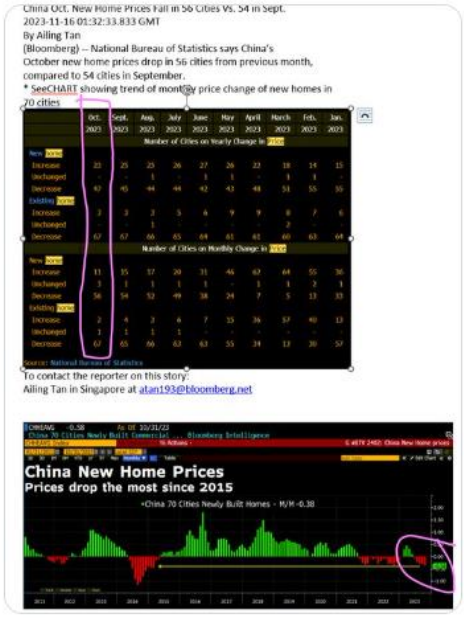
1 3 8 2.6K

Dan Tsubouchi @Energy_Tidbits · Nov 16

No move yet off the bottom for China home prices.

China new and existing home prices keep going lower and not yet found a bottom.

Thx @business Ailing Tan
#OOTT



2 3 1.2K

Dan Tsubouchi @Energy_Tidbits · Nov 16

Market story this morning

Walmart -7% in pre-market, dragging markets down.

See 👇 Walmart CFO tells @CourtReagan @SquawkCNBC more cautious on the consumer, in last two weeks of Oct saw sharper decline ..... gave us a reason for or maybe more caution.

#OOTT

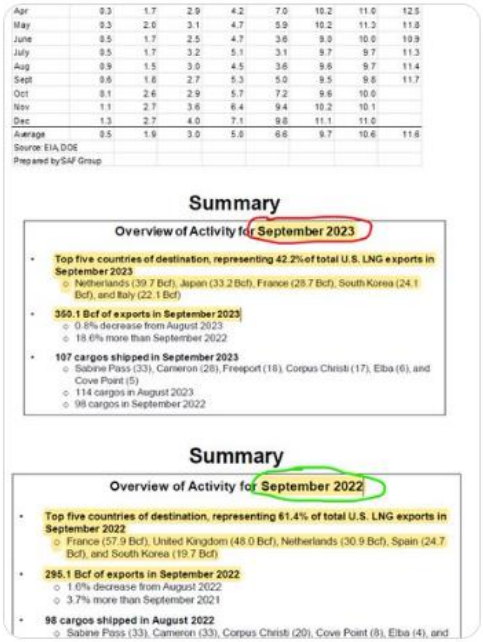
4 6 2.9K

Dan Tsubouchi @Energy_Tidbits · Nov 15

US #LNG exports Sep/23 11.7 bcfd, +3% MoM, +20% YoY. Freeport LNG was out in Sep/22.

Sep/23 top 5 export mkts: Dutch, Japan, France, Korea, Italy. Aug/22: France, UK, Dutch, Spain, Korea.

Note this DOE LNG data is posted 2 wks before same data in @EIAgov #OOTT



Apr	0.3	1.7	2.9	4.2	7.0	10.2	11.0	12.5
May	0.3	2.0	3.1	4.7	5.9	10.2	11.3	11.8
June	0.5	1.7	2.5	4.7	3.6	9.0	10.0	10.9
July	0.5	1.7	3.2	5.1	3.1	9.7	9.7	11.3
Aug	0.9	1.5	3.0	4.5	3.6	9.6	9.7	11.4
Sept	0.6	1.6	2.7	5.3	5.0	9.5	9.6	11.7
Oct	0.1	2.6	2.9	5.7	7.2	9.6	10.0	
Nov	1.1	2.7	3.6	6.4	9.4	10.2	10.1	
Dec	1.3	2.7	4.0	7.1	9.8	11.1	11.0	
Average	0.5	1.9	3.0	5.0	6.6	9.7	10.6	11.6

Source: EIA, DOE

Prepared by SAF Group

Summary

Overview of Activity for September 2023

- **Top five countries of destination, representing 42.2% of total U.S. LNG exports in September 2023**
  - Netherlands (39.7 Bcf), Japan (33.2 Bcf), France (28.7 Bcf), South Korea (24.1 Bcf), and Italy (22.1 Bcf)
- **350.1 Bcf of exports in September 2023**
  - 0.8% decrease from August 2023
  - 18.6% more than September 2022
- **107 cargos shipped in September 2023**
  - Sabine Pass (33), Cameron (26), Freeport (18), Corpus Christi (17), Elba (6), and Cove Point (5)
  - 114 cargos in August 2023
  - 98 cargos in September 2022

Summary

Overview of Activity for September 2022

- **Top five countries of destination, representing 61.4% of total U.S. LNG exports in September 2022**
  - France (57.9 Bcf), United Kingdom (48.0 Bcf), Netherlands (30.9 Bcf), Spain (24.7 Bcf), and South Korea (19.7 Bcf)
- **295.1 Bcf of exports in September 2022**
  - 1.6% decrease from August 2022
  - 3.7% more than September 2021
- **98 cargos shipped in August 2022**
  - Sabine Pass (33), Cameron (33), Corpus Christi (20), Cove Point (8), Elba (4), and

Dan Tsubouchi @Energy_Tidbits · Nov 15

#Bakken contiguous acreage value.

Yes, faster drilling of #Bakken 3-mile wells

BUT completion technology has really improved = more oil per foot!

"*..hoping to get stimulation folks in to hold a whole session on more barrels per foot because that's what we see happening*"
#OOTT

Not just faster drilling but better completions + higher oil recovery in Bakken, *"... on more barrels per foot because that's what we see happening"*. North Dakota's Lynn Helms.

North Dakota | Mineral Resources

The Directors Cut

SAF Group created transcript of comments by North Dakota Director of Mineral Resources, Lynn Helms, Ph.D., and Justin J. Kringstad, Director North Dakota Pipeline Authority on their monthly webcast to discuss North Dakota's Director's Cut September 2023 Production. https://www.dmr.nd.gov/dmr/oilgas/directorscut

Items in "italics" are SAF Group created transcript.

At 19:40 min mark, on what is driving the month over month production growth North Dakota has seen recently. Helms *"The driving factor is really the 3-mile laterals and the newer completion technology. So our Tier Two geology is now Tier One equivalent. So a lot of that acreage, I think we talked earlier this year, the Tier Two geology is only about 50% developed and the Tier Three is only about 25% developed. So now all of a sudden, those 7,000 well slots have the same productivity potential as the 15,000 that were drilled in the Tier One geology. And we've just seen so much improvement. A little bit in drilling efficiency, they can do a 3-mile lateral now in 12 to 13 days, which is mind boggling so that extra mile is only taking a couple days to drill. But the completion technology has really improved too. And so I think you are going to hear from the folks like Halliburton. I think we're looking at getting some stimulation folks in. Shameless plug, the Williston Basin conference is in May in Bismarck. We're hoping to get stimulation folks in to hold a whole session on more barrels per foot because that's what we see happening."*

Prepared by SAF Group https://safgroup.ca/news-insights/

Dan Tsubouchi @Energy_Tidbits · Oct 13

Overlooked #Bakken upside to value of contiguous acreage.

3-mile horizontals plus new completions = Bakken Tier 2 wells performing as well as Tier 1....
Show more

5 8 8.2K

Dan Tsubouchi @Energy_Tidbits · Nov 15

More oil growth to come in #Bakken.

North Dakota now sees 1.4 mmb/d as the new peak #Oil production number.

Current is 1.278 mmb/d.

#OOTT

".. for North Dakota once production achieves that 1.4 mmb/d peak number that we think is the new peak number." **North Dakota's Lynn Helms.**

North Dakota | Mineral Resources

The Directors Cut

SAF Group created transcript of comments by North Dakota Director of Mineral Resources, Lynn Helms, Ph.D., and Justin J. Kringstad, Director North Dakota Pipeline Authority on their monthly webcast to discuss North Dakota's Director's Cut September 2023 Production. https://www.dmr.nd.gov/dmr/oilgas/directorscut

Items in "italics" are SAF Group created transcript.

At 16:20 min mark on how Exxon and Chevron are enhanced oil recovery companies, Helms *"are big enhanced oil recovery companies and we've talked a lot about the fact that that's a 20-year extender for North Dakota once production achieves that 1.4 mmb/d peak number that we think is the new peak number."*

Prepared by SAF Group https://safgroup.ca/news-insights/

3 14 2.7K

Dan Tsubouchi @Energy_Tidbits · Nov 15

For those who aren't near their laptops. At 830am MT, @EIAgov released its #Oil #Gasoline #Distillates inventory as of Nov 10. Table below compares EIA data vs @business expectations and vs @APIenergy yesterday. Prior to release, WTI was $77.40. #OOTT

Oil/Products Inventory Nov 10: EIA, Bloomberg Survey Expectations, API

(million barrels)	EIA	Expectations	API
Oil	3.60	2.00	1.30
Gasoline	-1.50	1.50	0.20
Distillates	-1.40	-1.10	-1.00
	0.70	2.40	0.50

Note: Oil is commercial so builds in no change in SPR for the Nov 10 week
Note: Included in the oil data, Cushing had a 1.90 mmb build for Nov 10 week
Source EIA, Bloomberg
Prepared by SAF Group https://safgroup.ca/news-insights/

3 9 1.8K

Dan Tsubouchi @Energy_Tidbits · Nov 15

"*I wouldn't say the speed of [EV] adoption has slowed down, but it's not as initially planned. One thing is clear, electric vehicle adoption is not a sprint, it's a marathon. And we're still at the beginning of this long, long run*" Mercedes US CEO

Oil is needed for longer #OOTT

2 7 26 4.1K

Dan Tsubouchi @Energy_Tidbits · Nov 14

"*Our eyes are open to constantly monitor and search for any Israeli ship in the Red Sea, especially in Bab al-Mandab, and near Yemeni regional waters*" warns Houthi leader

👇 11/09. All shipping via Suez go via Red Sea/Bab el Mandeb, major chokepoint for more than #Oil
#OOTT

ALJAZEERA

https://www.aljazeera.com/news/2023/11/14/yemens-houthis-say-they-fired-ballistic-missiles-towards-israel

Yemen's Houthis say they fired ballistic missiles towards Israel

Israeli authorities say missile intercepted near Eilat after Houthi leader earlier promised to continue attacks.

Published On 14 Nov 2023 14 Nov 2023

Yemen's Houthi rebels have launched ballistic missiles on various Israel targets, including in the Red Sea city of Eilat, the group's military spokesperson has said.

The launch came "after 24 hours of another military operation by drones on the same Israeli targets," the spokesperson said on Tuesday.

The Israeli military said that it intercepted a missile near the Red Sea.

Israel said it used its "Arrow" aerial defence system to shoot down a missile on Tuesday after sirens sounded in the port city of Eilat. Israel says that the projectile did not enter its territory, and did not say who shot it.

Earlier, the leader of Yemen's Houthis said that his group would continue to launch attacks against Israel.

"Our eyes are open to constantly monitor and search for any Israeli ship in the Red Sea, especially in Bab al-Mandab, and near Yemeni regional waters," Abdul-Malik al-Houthi, leader of the Iran-backed group, said.

The Houthis have launched several missile and drone attacks against Israel since October 7, when Hamas fighters from the besieged Gaza Strip carried out an attack on southern Israel, killing around 1,200 people, according to Israeli authorities.

Since the Hamas attack, Israel has bombarded Gaza and launched a ground invasion of the territory. More than 11,200 people have been killed in the Israeli assault, including more than 4,600 children, according to Palestinian authorities.

The war in Gaza has sent tensions soaring throughout the region, with international organisations and political leaders warning of a potential wider war across the region.

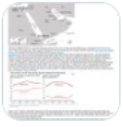
The Iran-backed Lebanese armed group Hezbollah has exchanged fire with Israeli forces across the Lebanon-Israel border, and Iran-backed armed groups have targeted US forces in Syria and Iraq. The United States has carried out strikes in Syria in response.

The Houthis have emerged as a major player in the Arabian Peninsula, withstanding efforts to dislodge them by a Saudi-led intervention in Yemen that began in 2015 with the support of the US.

The Saudi bombardment was criticised for contributing to a humanitarian catastrophe in the country and inflicting many civilian casualties, while the Houthis eventually expanded their control over areas of northern Yemen.

Yemen's Houthi rebels claim responsibility for missiles and drones launched towards Israel

The war in Yemen has reached an uneasy stalemate, with fighting at a standstill even as both sides failed to renew a United Nations-backed truce that expired in October.

> **Dan Tsubouchi** @Energy_Tidbits · Nov 9
>
> 
>
> Suez Canal 101
>
> US confirms MQ-9 drone shot down off coast of Yemen (getting closer to Bab el Mandeb) by Houthi. @JenGriffinFNC ...
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2 4 3.2K

Dan Tsubouchi @Energy_Tidbits · Nov 14

Russia #Oil shipments.

11/12 wk: -40,000 b/d to 3.2 mmb/d.

But 4-wk average still 3.4 mmb/d so still over commitment of ~3.28 mmb/d.

Increasing refinery runs means less oil for export.

Thx @JLeeEnergy...
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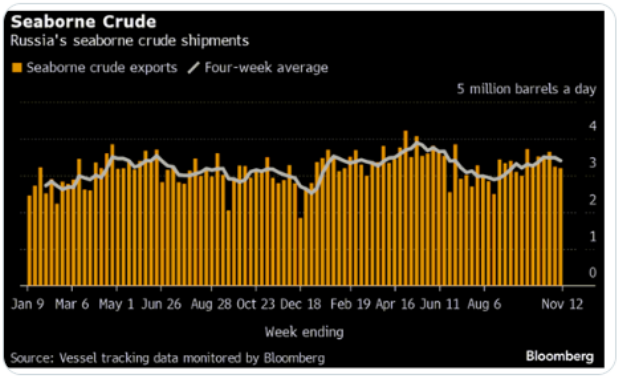


6 18 6.1K

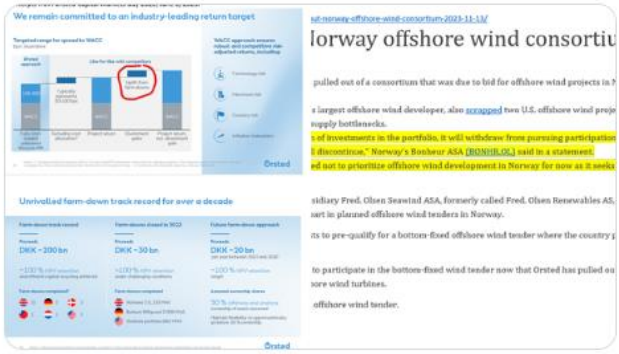
Dan Tsubouchi @Energy_Tidbits · Nov 14

If offshore wind projects have skinny, at best, starting base IRRs, how can they, or others, attract required farm down capital?

Orsted pulls out of offshore Norway consortium as it adjusts its bidding activities.

#NatGas will be needed for longer

Thx @ReutersNerijusA
#OOTT



1 2 9 4.3K

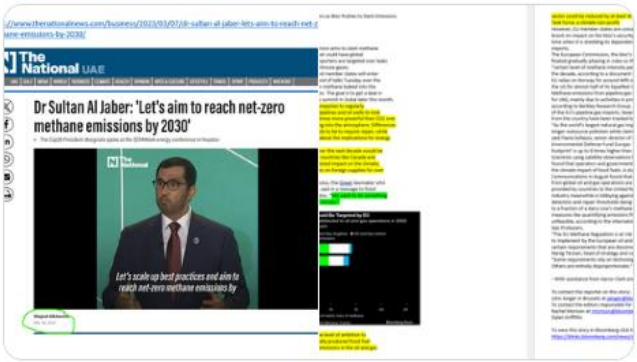
Dan Tsubouchi @Energy_Tidbits · Nov 14

Is UAE Al Jaber The Climate Man?

Criticized for wanting impact/practical COP28 actions ie. 03/06 #Oil #NatGas methane emissions to net zero by 2030.

Now EU to prioritize methane emissions "*we want to do something that's really meaningful for the climate*"

Thx @johnainger
#OOTT



1 · 3 · 2.5K

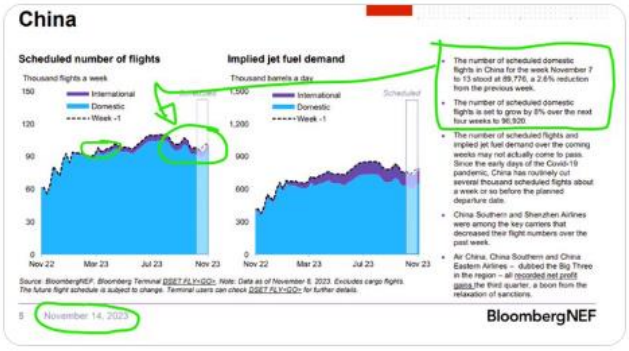
Dan Tsubouchi @Energy_Tidbits · Nov 14

Negative.

China scheduled domestic flights down -2.6% WoW to 89,776 flights.

Haven't been below 90,000 since Mar 21-27 levels.

Thx @BloombergNEF Claudio Lubis
#OOTT



1 · 4 · 14 · 3K

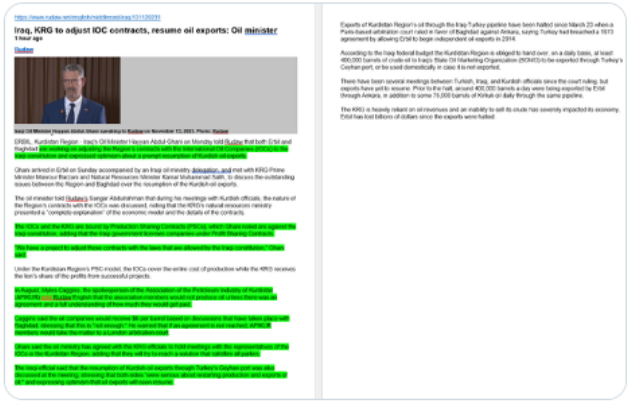
Dan Tsubouchi @Energy_Tidbits · Nov 13

Easier said than done.

Iraq says Kurdistan Production Sharing Contracts with IOCs must be changed to Profit Sharing Contracts to fit within constitution.

That doesn't seem to point to a quick return of Kurd #Oil via Turkey.

Thx @RudawEnglish
#OOTT



1 · 6 · 20 · 9.1K

Dan Tsubouchi @Energy_Tidbits · Nov 13

This plus other charts/comments on China recovery losing momentum is the theme on Bloomberg Daybreak Asia right now.

#OOTT

2 · 4 · 2.1K

Dan Tsubouchi @Energy_Tidbits · 47m

Why Iraq is slow playing a Kurd deal.

See 👇 Iraq is already 109,000 b/d over quota.

What happens IF Iraq/Kurd reach a deal to bring back ~350,000 b/d of Kurd #Oil.

Surely Iraq won't cut back >450,000 b/d of non-Kurd oil to be in line with quota

...

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> **Dan Tsubouchi** @Energy_Tidbits · 7h
>
> Time for The Man, KSA Energy Minister Abdulaziz to remind others to get back in line.
>
> #OPEC production keeps sneaking up.
>
> ...
>
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OPEC crude oil production

According to secondary sources, total **OPEC-13 crude oil production** averaged 27.90 mb/d in October 2023, higher by 80 tb/d, m-o-m. Crude oil output increased mainly in Angola, IR Iran and Nigeria, while production in Libya, Saudi Arabia and Kuwait decreased.

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

Secondary sources	2021	2022	1Q23	2Q23	3Q23	Aug 23	Sep 23	Oct 23	Change Oct/Sep
Algeria	913	1,017	1,013	979	952	940	958	961	3
Angola	1,122	1,140	1,058	1,104	1,137	1,124	1,121	1,172	51
Congo	263	261	268	265	261	261	252	257	5
Equatorial Guinea	98	84	53	59	61	69	54	56	2
Gabon	182	197	194	206	207	211	206	216	10
IR Iran	2,392	2,554	2,572	2,698	2,996	3,050	3,069	3,115	46
Iraq	4,046	4,439	4,393	4,147	4,296	4,300	4,314	4,329	15
Kuwait	2,419	2,704	2,684	2,585	2,560	2,551	2,577	2,553	-24
Libya	1,138	981	1,157	1,164	1,152	1,159	1,169	1,143	-26
Nigeria	1,373	1,205	1,347	1,233	1,269	1,249	1,399	1,416	17
Saudi Arabia	9,114	10,531	10,358	10,149	8,993	8,920	9,018	8,992	-26
UAE	2,727	3,066	3,045	2,941	2,910	2,911	2,924	2,940	16
Venezuela	554	683	696	737	761	757	758	751	-7
Total OPEC	**26,340**	**28,863**	**28,840**	**28,268**	**27,555**	**27,501**	**27,820**	**27,900**	**80**

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

1 4 16 2.5K

Dan Tsubouchi @Energy_Tidbits · 7h

Time for The Man, KSA Energy Minister Abdulaziz to remind others to get back in line.

#OPEC production keeps sneaking up.

OPEC Oct of 27.9 mmb/d was +399,000 b/d vs Aug.

Iraq now +109,000 b/d vs quota.
UAE now +52,000 b/d vs quota.
...
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OPEC crude oil production

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

1 5 5 4.6K

Dan Tsubouchi @Energy_Tidbits · 10h

Xi's key challenge is 👇 stopping outflow of investment in China.

Will Xi's $2,000 a plate dinner with US CEOs in San Fran drum up confidence to invest in China without any meaningful change in policy?

Thx @onlyyoontv @SquawkCNBC
#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Nov 8
>
> Here's why China recovery is slow
>
> Huge exodus in foreign direct investment in China & more FDI flowing out for 1st time.
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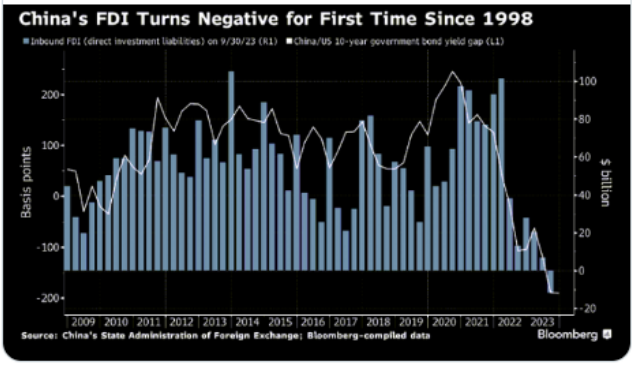

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