

Energy Tidbits

What if Iran Doesn't Directly Attack Now That Israel has Killed Hamas Leader in July and Hezbollah Leader on Friday?

Produced by: Dan Tsubouchi

September 29, 2024

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Matterhorn Express Pipeline Overview





The Matterhorn Express Pipeline is an approximately 580-mile intrastate pipeline designed to transport up to 2.5 billion cubic feet per day of natural gas from the Permian Basin to the Katy area near Houston, Texas. As natural gas production in the Permian Basin continues to grow, the Matterhorn Express Pipeline will provide critical takeaway capacity moving product to market for end use and play a significant role enhancing our nation's energy security, reducing energy costs, and minimizing emissions related to flaring.



Economic Benefits¹

- Designed to deliver energy for up to 2 million homes
- Through the completion of construction, contribute an estimated \$75 million in taxes to state and local governments
- Once fully operational, contribute an estimated \$35 million in taxes to state and local governments annually
- Employ more than 3,500 skilled workers during the construction phase of the project
- Create 50 permanent jobs in Texas once completed

Our Commitment to Landowners

The Matterhorn Express Pipeline is committed to being good neighbors and incorporating feedback from all relevant stakeholders into both the proposed route and the project's overall design.

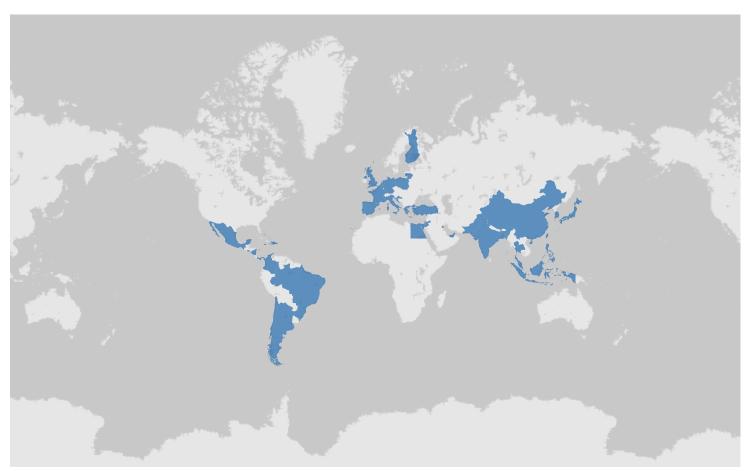
[1] Words such as "anticipated," "expected," "fargeted," "projected," "estimated," and similar expressions are intended to identify forward-looking statements. These forward-looking statements rely on a number of assumptions concerning future events and are subject to a number of uncertainties, factors and risks, many of which are outside the control of the Company, which could cause results to differ materially from those expected by management of the Company.



Office of Regulation, Analysis, and Engagement Division of Natural Gas Regulation

U.S. Natural Gas Imports and Exports Monthly July 2024

Data are current as of the publication date. Any revisions to reported data will be published in the next scheduled monthly report.



U.S. LNG Historical Countries of Destination

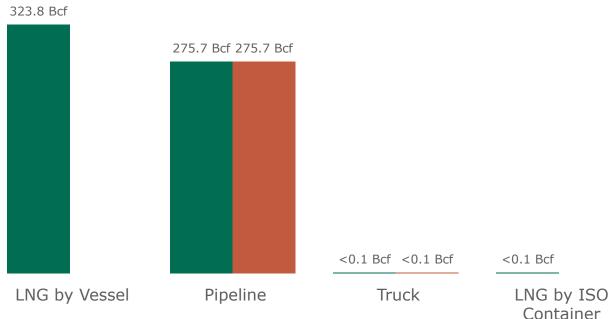
To be placed on the U.S. Natural Gas Imports & Exports Monthly email distribution list, please add your contact information here.

All other inquiries, please send an email to ngreports@hq.doe.gov.

For electronic version: https://www.energy.gov/fecm/listings/natural-gas-imports-exports-monthly-reports

U.S. Natural Gas Imports & Exports by Mode of Transport (July 2024)





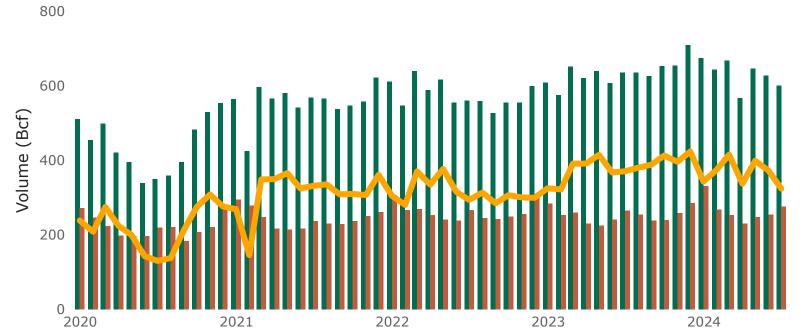
1a. Monthly Summary: U.S. Natural Gas Imports & Exports by Mode of Transport

Volume (Bcf)		Monthly	Percentage Change		
Mode of Transport	Jul 2024	Jun 2024	Jul 2023	Jul 2024 vs. Jun 2024	Jul 2024 vs. Jul 2023
Exports					
LNG by Vessel	323.8	356.3	349.2	-9%	-7%
Pipeline	275.7	269.7	285.2	2%	-3%
Truck	< 0.1	< 0.1	< 0.1	-18%	-43%
LNG by ISO Container	< 0.1	< 0.1	< 0.1	-3%	55%
Total	599.6	626.1	634.5	-4%	-5%
Imports					
LNG by Vessel	0	0	1.3	-	-100%
Pipeline	275.7	253.8	262.7	9%	5%
Truck	< 0.1	< 0.1	0.3	49%	-74%
LNG by ISO Container	0	0	0	_	-
Total	275.8	253.9	264.3	9%	4%
Net Exports	323.8	372.2	370.2	-13%	-13%

- Natural gas imports & exports by truck included compressed natural gas (CNG) and liquefied natural gas (LNG).
- Does not include LNG Re-Exports or Puerto Rico LNG Imports or Exports. See Table 6 for LNG Re-Exports and Table 8 for Puerto Rico LNG Imports and Exports.
- Totals may not equal sum of components because of independent rounding.
- not applicable(-).

U.S. Natural Gas Imports & Exports





1b. Year-to-Date and Annual Summary: U.S. Natural Gas Imports & Exports by Mode of Transport

Volume (Bcf)	Year-	to-Date (Ja	n-Jul)	Annual		
Mode of Transport	YTD 2024	YTD 2023	% Change	2023	2022	% Change
Exports						
LNG by Vessel	2,476.2	2,448.4	1%	4,341.2	3,861.9	12%
Pipeline	1,944.3	1,884.9	3%	3,266.6	3,040.8	7%
Truck	0.1	0.5	-73%	0.7	1.6	-58%
LNG by ISO Container	0.6	0.8	-27%	1.1	2.1	-48%
Total	4,421.2	4,334.6	2%	7,609.6	6,906.4	10%
Imports						
LNG by Vessel	11.5	10.5	9%	13.2	23.5	-44%
Pipeline	1,845.9	1,743.5	6%	3,015.7	3,104.0	-3%
Truck	0.7	1.4	-51%	2.4	2.1	14%
LNG by ISO Container	0	0	_	0	0	_
Total	1,858.0	1,755.4	6%	3,031.2	3,129.6	-3%
Net Exports	2,563.8	2,579.2	<1%	4,578.3	3,776.8	21%

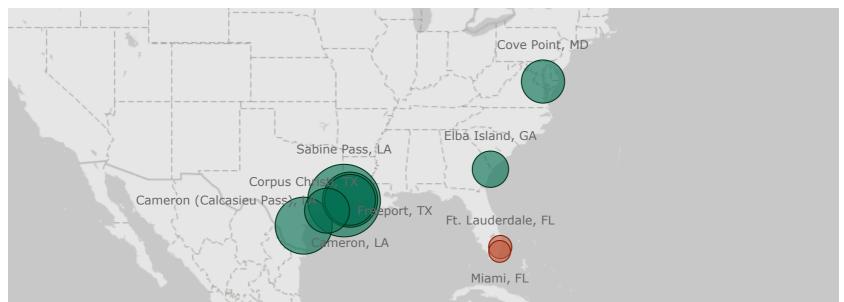
⁻ Does not include LNG Re-Exports or Puerto Rico LNG Imports or Exports. See Table 6 for LNG Re-Exports and Table 8 for Puerto Rico LNG Imports and Exports.

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

not applicable(-).

U.S.-Produced LNG Exports by Point of Exit (July 2024)





2a. Monthly Summary: U.S.-Produced LNG Exports by Mode of Transport and Point of Exit

Volume (Bcf)		Monthly		Percentag	e Change	No. of Cargos	No. of Countries	% nFTA	% Spot
Point of Exit	Jul 2024	Jun 2024	Jul 2023	Jul 2024 vs. Jun 2024	Jul 2024 vs. Jul 2023	Jul 2024	Jul 2024	Jul 2024	Jul 2024
LNG Exports by Vessel									
Sabine Pass, LA	119.8	108.5	113.3	10%	6%	38	21	78%	0%
Corpus Christi, TX	57.4	64.6	58.6	-11%	-2%	18	13	70%	0%
Cameron, LA	51.6	50.9	49.8	1%	4%	19	9	89%	0%
Cameron (Calcasieu Pass), LA	39.3	41.8	38.7	-6%	1%	12	8	97%	55%
Freeport, TX	24.8	64.9	59.5	-62%	-58%	8	7	90%	0%
Cove Point, MD	21.2	19.1	19.9	11%	6%	6	3	100%	0%
Elba Island, GA	9.7	6.4	9.3	52%	5%	3	3	100%	0%
Total	323.8	356.3	349.2	-9%	-7%	104	27	84%	7%
LNG Exports by ISO Container									
Ft. Lauderdale, FL	< 0.1	< 0.1	< 0.1	-4%	54%	36	4	100%	0%
Miami, FL	< 0.1	< 0.1	< 0.1	36%	94%	4	1	100%	0%
Jacksonville, FL	0	0	0	_	_	-	0	0%	0%
Newark, NJ	0	0	0	-	-	-	0	0%	0%
Total	<0.1	<0.1	<0.1	-3%	55%	40	5	100%	0%
Total LNG Exports	323.9	356.4	349.3	-9%	-7%	-	31	84%	7 %

⁻ Some cargos might be split cargos. Split cargos refer to a single shipment of LNG where portions of the cargo have different transactional characteristics.

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

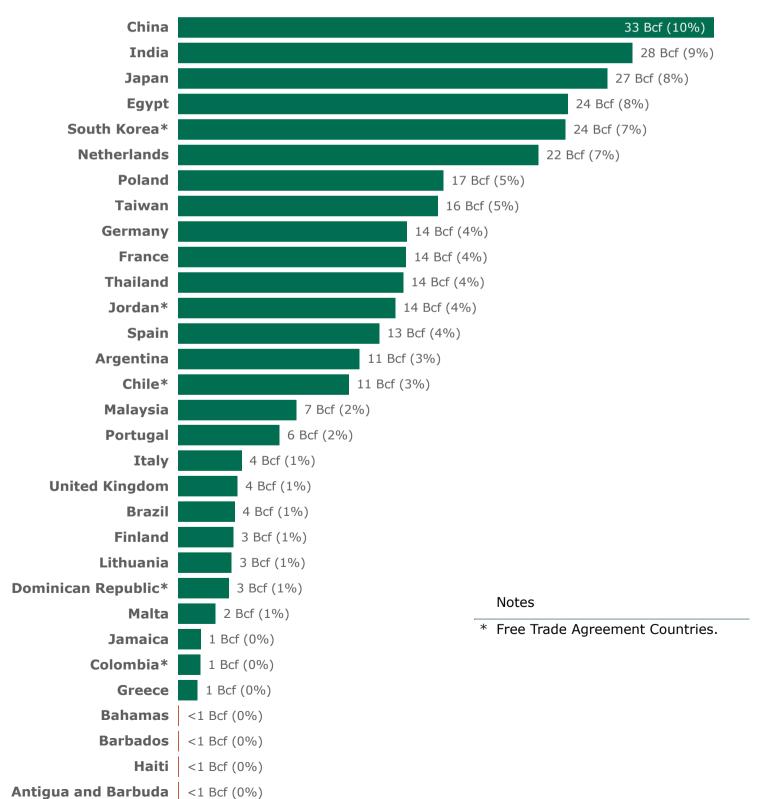
not applicable(-).

Map 8

4: U.S.-Produced LNG Exports by Country of Destination (July 2024)

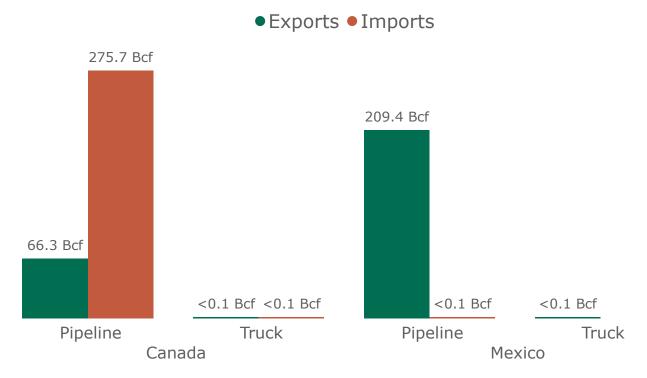






Monthly Summary

U.S. Natural Gas Imports & Exports by Pipeline & Truck (July 2024)



9a. Monthly Summary: U.S. Natural Gas Imports & Exports by Pipeline & Truck

Volume (Bcf)		Monthly		Percentag	e Change
Mode of Transport	Jul 2024	Jun 2024	Jul 2023	Jul 2024 vs. Jun 2024	Jul 2024 vs. Jul 2023
Mexico					
Exports					
Pipeline	209.4	203.2	208.6	3%	<1%
Truck	< 0.1	< 0.1	< 0.1	-16%	-54%
Total	209.4	203.2	208.7	3%	<1%
Imports					
Pipeline	< 0.1	< 0.1	< 0.1	4%	-5%
Truck	0	0	0	-	-
Total	<0.1	<0.1	<0.1	4%	-5%
Net Exports	209.4	203.2	208.6	3%	<1%
Canada					
Exports					
Pipeline	66.3	66.5	76.6	<1%	-13%
Truck	<0.1	< 0.1	< 0.1	-22%	-12%
Total	66.3	66.6	76.6	<1%	-13%
Imports					
Pipeline	275.7	253.8	262.7	9%	5%
Truck	<0.1	< 0.1	0.3	49%	-74%
Total	275.8	253.9	263.0	9%	5%
Net Exports	-209.4	-187.3	-186.4	-12%	-12%
Total Net Exports	<0.1	15.8	22.2	-100%	-100%

⁻ Natural gas imports & exports by truck included compressed natural gas (CNG) and liquefied natural gas (LNG).

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

⁻ not applicable(-).

https://www.reuters.com/markets/deals/glencore-inks-20-year-non-binding-deal-with-commonwealth-lng-kimmeridge-2024-09-19/

Glencore inks 20-year non-binding deal with Commonwealth LNG, Kimmeridge

By Reuters

September 19, 20248:50 AM MDT

Updated 4 days ago

Sept 19 (Reuters) - Commodities giant Glencore (GLEN.L), opens new tab has signed a non-binding agreement to buy 2 million tonnes per annum of liquefied natural gas from Commonwealth LNG along with equivalent natural gas supply from Kimmeridge Texas Gas, the companies said on Thursday.

The 20-year supply agreement is expected to be finalized among all parties by the fourth quarter.

In June, private equity firm Kimmeridge increased its stake in Commonwealth LNG to over 90% through its unit KTG.

<u>The U.S. LNG market</u> is experiencing a boom, with the country surpassing Qatar as the world's top exporter, as new technology allows shale producers to tap massive reserves and help wean Europe off Russian gas while providing Asian buyers with a greener alternative for power generation.

Glencore has previously signed LNG deals with other U.S. energy firms, including <u>Marathon Oil(MRO.N)</u>, <u>opens new tab</u> and <u>Cheniere</u> Energy (<u>LNG.N</u>), <u>opens new tab</u>, as part of its strategy to expand its presence in the LNG market.

Commonwealth plans to green light its LNG export facility in Cameron, Louisiana, by the first half of 2025, with commercial operations expected to begin in 2028. However, a U.S. court <u>ordered</u> federal regulators in July to reassess the impact of greenhouse gas emissions from the project after environmental groups filed a lawsuit claiming the issue was not adequately addressed.

https://www.offshore-energy.biz/swiss-player-getting-two-decades-worth-of-lng-from-lousiana-export-terminal/#:~:text=Glencore%20is%20set%20to%20purchase,to%20follow%20in%20Q4%202024.

Swiss player getting two decades' worth of LNG from Lousiana export terminal

September 23, 2024, by Dragana Nikše

U.S.-based Commonwealth LNG and Kimmeridge Texas Gas (KTG), an affiliate of the energy-focused alternative investment manager Kimmeridge, have signed a multi-year heads of terms (HoT) agreement with Swiss-headquartered Glencore for the supply of natural gas and liquefied natural gas (LNG) from an export facility under development in Louisiana.

Glencore is set to purchase 2 million tonnes per annum (mtpa) of LNG for 20 years from the **Commonwealth LNG** project and equivalent natural gas supply from KTG under a netback agreement. The definitive agreements are expected to follow in Q4 2024.

David Lawler, KTG CEO and President, said: "Our partnership with Glencore represents another tangible step forward for the KTG platform in becoming a fully integrated provider of reliable, secure and clean energy from wellhead to water. With Commonwealth by our side, we look forward to reaching critical international markets in partnership with Glencore, who shares our vision of responsible LNG production and usage."

Commonwealth believes a final investment decision (FID) on its LNG export facility in Cameron, Louisiana will be reached in the first half of 2025, with the first LNG production anticipated in 2028. Kimmeridge took a controlling interest in Commonwealth LNG in June, increasing its equity ownership to more than 90%.

"This agreement is the result of a strong relationship between Glencore and Kimmeridge, building upon our common vision of helping economies accelerate their energy transition ambitions," noted **Maxim Kolupaev**, Glencore Global Head of LNG, Gas and Power.

The proposed 9.5 mtpa liquefaction and export facility on the west bank of the Calcasieu Ship Channel is set to have five 50,000 cubic meters (cbm) storage tanks, accommodating vessels up to 216,000 cbm. The terminal has garnered interest from MET Group, which signed a 20-year LNG supply deal, and EQT, which penned a 15-year tolling agreement.



North Dakota Department of Mineral Resources September 2024 Director's Cut and Release July 2024 Production Numbers

Oil Production Numbers

June 35,591,822 barrels = 1,186,394 barrels/day **RF** +8%

July 36,205,088 barrels = 1,167,906 barrels/day (final)-1.6% **RF+6%**

1,519,037 all-time high Nov 2019

1,137,308 barrels/day = 97% from Bakken and Three Forks

30,598 barrels/day = 3% from Legacy Pools

Revenue Forecast 1,100,000 barrels/day

Crude Price (\$barrel)	ND Light Sweet	WTI	ND Market
June	71.75	79.77	71.80 RF +1%
July	73.12	81.80	73.61 RF +5%
Today	66.50	70.95	68.73 RF -2% est
All-time high (6/2008)	125.62	134.02	126.75
Revenue Forecast			70.00

Gas Production and Capture

June 104,687,220 MCF = 3,489,574 MCF/Day (final)

94% Capture 98,680,202 MCF = 3,289,340 MCF/Day

July 107,176,186 MCF = 3,457,296 MCF/Day -0.9%

94% Capture 100,615,679 MCF = 3,245,667 MCF/Day

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

production Dec 2023

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

Dec 2023

Wells Permitted

June 78 July 107

August 100 All-time high 370 in 10/2012

Rig Count

June 37 July 39 August 38 Today 41

Today 41 All-time high 218 on 5/29/2012

Federal Surface 4

Waiting on Completions

June 372 July 372

Inactive

June 1,458 July 1,771

Completed

June 55 July 79

August 97 (Preliminary)

Producing

June 19,025

July 19,035 (Preliminary) **NEW** All-time high 19,094 May/2024

16,877 wells 89% are now unconventional

Bakken/Three Forks Wells

2,158 wells 11% produced from legacy

conventional pools

IIJA Initial Grant	Wells PA	Sites Reclaimed
January 2023	1	0
February	4	0
March	1	0
April	8	0
May	17	0
June	12	1
July	15	5
August	15	13
September	0	14
October	0	10
November	0	0
December	0	1
January 2024	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	6
July	0	9
Total	73	62

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

Fort Berthold Reservation Activity

	Total	Fee Land	Trust Land
Oil Production (barrels/day)	190,233	72,808	117,425
Drilling Rigs	1	0	1
Active Wells	2,949	700	2,249
Waiting on Completion	10		
Approved Drilling Permits	115	7	108

Comments:

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

There are 20 frac crews currently active.

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

Seismic - 2 active, 0 recording, 0 NDIC reclamation projects, 0 remediating, 3 permitted, 4 suspended surveys, and 3 pending.

The state-wide gas flared volume from June to July increased 11.4 MMCFD to 211.6 MMCF per day, the statewide gas capture remained at 94% while Bakken gas capture also remained at 94%. The historical high flared percent was 36% in 09/2011

Gas capture details are as follows:

Statewide	94%
Statewide Bakken	94%
Non-FBIR Bakken	94%
FBIR Bakken	96%
Trust FBIR Bakken	97%
Fee FBIR	94%
Fertile Valley	52%
Burg	81%
Hanks	37%
Bar Butte	49%
Zahl	34%
Green Lake	47%
Little Muddy	74%
Round Prairie	97%
Painted Woods	92%
Ft. Buford	91%
Lake Trenton	92%
Sixmile	55%
Buford	54%
Briar Creek	35%
Assiniboine	100%
Lone Butte	58%
Ranch Creek	66%
Twin Buttes	44%
Charlson	86%

The Commission has established the following gas capture goals: 74% October 1, 2014 through December 31, 2014

For Immediate Release September 23, 2024 Mark Bohrer, Assistant Director ND Department of Mineral Resources Oil and Gas Division

77% January 1, 2015 through March 31, 2016 80% April 1, 2016 through October 31, 2016 85% November 1, 2016 through October 31, 2018 88% November 1, 2018 through October 31, 2020 91% beginning November 1, 2020



MONTHLY UPDATE

SEPTEMBER 2024 PRODUCTION & TRANSPORTATION

Published: September 23, 2024
Justin J. Kringstad, Director
North Dakota Pipeline Authority

Office: 701.220.6227

www.northdakotapipelines.com

MONTHLY UPDATE

SEPTEMBER 2024 PRODUCTION & TRANSPORTATION

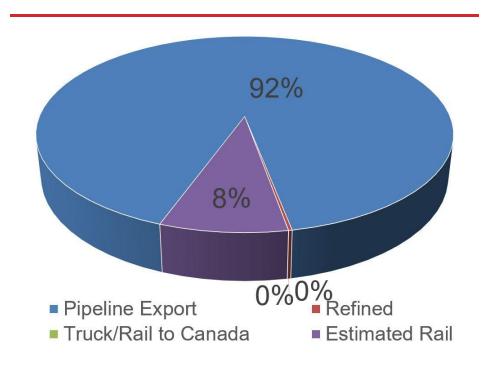
North Dakota Oil Production

Month	Monthly Total, BBL	Average, BOPD
June 2024 - Final	35,591,822	1,186,394
July 2024 - Prelim.	36,205,088	1,167,906

North Dakota Natural Gas Production

Month	Monthly Total, MCF	Average, MCFD
June 2024 - Final	104,687,220	3,489,574
July 2024 - Prelim.	107,176,186	3,457,296

Estimated Williston Basin Oil Transportation, July 2024



CURRENT DRILLING ACTIVITY:

NORTH DAKOTA¹

40 Rigs

EASTERN MONTANA²

1 Rigs

SOUTH DAKOTA²

0 Rigs

SOURCE (SEP 23, 2024):

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

PRICES:

Crude (WTI): \$69.70

Crude (Brent): \$73.28

NYMEX Gas: \$2.59

SOURCE: BLOOMBERG (SEP 23, 2024 1:30PM EST)

GAS STATS*

94% CAPTURED & SOLD

5% FLARED DUE TO CHALLENGES OR CONSTRAINTS ON EXISTING GATHERING SYSTEMS

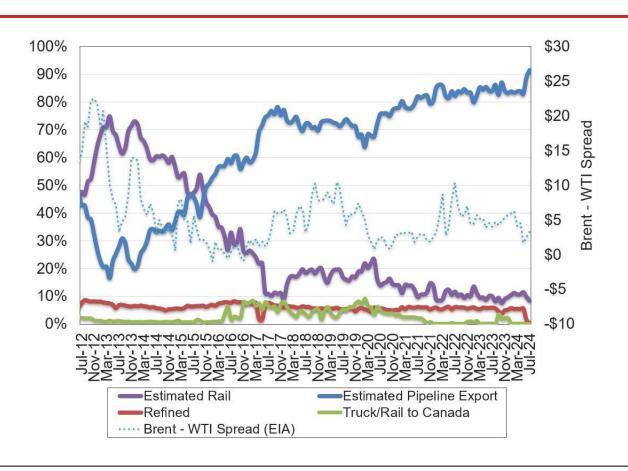
1% FLARED FROM WELL WITH ZERO SALES

*JULY 2024 NON-CONF DATA

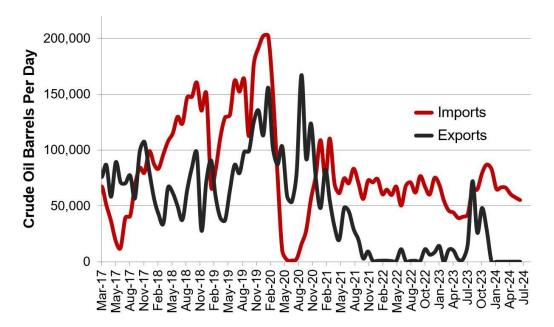
Estimated North Dakota Rail Export Volumes



Estimated Williston Basin Oil Transportation

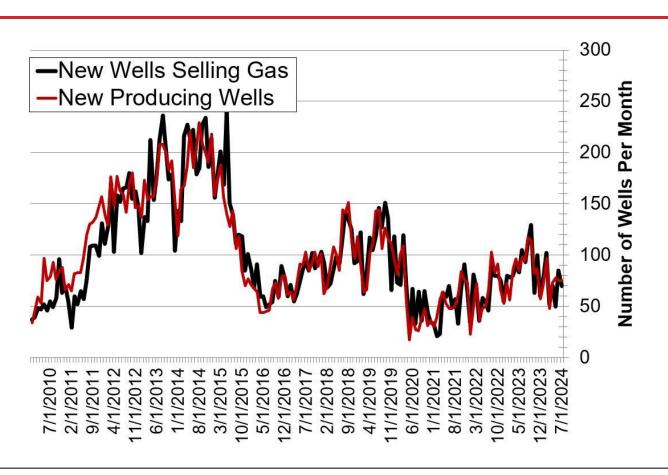


Williston Basin Truck/Rail Imports and Exports with Canada



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

New Gas Sales Wells per Month



US Williston Basin Oil Production, BOPD

2023

MONTH	ND	EASTERN MT*	SD	TOTAL
January	1,062,924	62,114	2,610	1,127,648
February	1,158,988	63,559	2,475	1,225,021
March	1,124,917	64,596	2,652	1,192,165
April	1,135,872	61,956	2,557	1,200,385
May	1,140,253	61,310	2,560	1,204,123
June	1,174,603	59,744	2,275	1,236,621
July	1,187,084	56,994	2,311	1,246,388
August	1,219,832	62,412	2,540	1,284,784
September	1,290,356	62,829	2,504	1,355,689
October	1,255,517	62,674	2,452	1,320,642
November	1,279,103	63,120	2,448	1,344,671
December	1,275,004	63,288	2,496	1,340,788

2024

MONTH	ND	EASTERN MT*	SD	TOTAL
January	1,106,526	59,255	2,312	1,168,092
February	1,256,157	66,329	2,412	1,324,898
March	1,232,640	70,658	2,590	1,305,888
April	1,244,277	72,242	2,430	1,318,949
May	1,199,645	72,252	2,349	1,274,246
June	1,186,394		2,370	
July	1,167,906			
August				
September				
October				
November				
December				_

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

Pemex Dos Bocas Refinery Ramps Up to 24.7% Capacity in August

2024-09-26 20:12:08.246 GMT

By Lucia Kassai

(Bloomberg) -- Petroleos Mexicanos trimmed oil processing at its refineries in Mexico in August, as cuts at the Tula and Minatitlan refineries offset an increase at the new Dos Bocas refinery, according to company data compiled by Bloomberg.

Pemex operated its seven refineries in Mexico at 50.4% capacity in August, down from 51.5% in July

Olmeca refinery, also known as Dos Bocas, processed 84.1k b/d in August, up 29% from the previous month as facility ramps up operations

Facility reported gasoline production for the first time in August; production of ultra-low sulfur gasoline was 1.14k b/d

August ULSD output 28.4k b/d vs 21.5k b/d in July

Olmeca also made coke

Cadereyta processed most crude in more than 7 years; in March the refinery was ordered by the state of Nuevo Leon to shut after environmental inspectors were denied access

Read More: AMLO Asked Pemex to Evaluate Cadereyta Refinery Pollution Issue

^{*} Here's the data by refinery:

Refinery	August (b/d)	m/m	у/у	Capacity use	NOTE
Cadereyta	169,834	5.1%	96%	61.8%	highest since April 2017
Madero	108,931	3.2%	15%	57.3%	A CARAGO
Tula	165,243	-14%	-16%	52.5%	
Salamanca	136,862	21%	76%	62.2%	still operating below levels seen in May, when refinery had a sulphuric acid leak
Minatitlan	91,662	-37%	-22%	32.2%	Braker
Salina Cruz	233,830	1.5%	5.3%	70.9%	
Dos Bocas	84, 128	29%		24.7%	
Total	990,490	-2.2%	24%	50.4%	

NOTE: Pemex's seven refineries have capacity to process 1.967m b/d of crude

https://www.wradio.com.co/2024/09/24/este-fue-el-discurso-del-presidente-gustavo-petro-en-la-asamblea-general-de-la-onu/

This was President Gustavo Petro's speech at the UN General Assembly President Gustavo Petro's speech was focused on the promotion of peace, sustainable development and human dignity.



Gustavo Petro. EFE / EPA / JUSTIN LANE / JUSTIN LANE (EFE)

Lina María VegaVegacabra

24/09/2024 - 11:42 h COT

On Tuesday, September 24, President **Gustavo Petro** gave a speech at the 79th session of the **United Nations General Assembly** in New York City.

The president's speech was focused on **the promotion of peace**, **sustainable development and human dignity** in favor of present and future generations.

After the speech at the General Assembly, the president is expected to hold a meeting with Mahmoud Abbas, **president of the State of Palestine and** the Palestinian National Authority, who is also participating in the summit.

This was President Gustavo Petro's speech

Ladies and gentlemen presidents of the world,

In this chamber, a president's communication capacity **depends on the amount of dollars he has in his budget**, on the number of warplanes he has and, ultimately, on his country's capacity to **destroy humanity.**

The power of a country in the world is no longer exercised by the type of economic or political system, or ideas that it radiates, but by the power to destroy the life of humanity.

Those of us who do not have that power of destruction, on the contrary, those of us who have the power to sustain life on the planet, speak without much attention paid and **often perhaps only for our own peoples.**

That is why they do not listen to us when we vote to stop the genocide in Gaza, even though we are the majority of the world's presidents and representatives of the majority of humanity; We are not listened to by a minority of presidents who can stop the bombing, that is, by the presidents of countries that can destroy humanity. If we ask for debt to be exchanged for climate action, powerful minorities do not listen to us. If we ask them to stop wars and concentrate on the rapid transformation of the world's economy in order to save life and the human species, they do not listen to us either. It is the power of destruction of life that gives volume to the voice in the United Nations compound and the voice of the nations that we ask to unite human effort in pursuit of existence is not heard. Here we speak but we are not heard.

However, perhaps we no longer speak so that they listen to us and dialogue with the presidents of world power, but so that they listen to the peoples of the world.

Today things are worse than a year ago. Eleven million hectares have burned in the Amazon rainforest in just one month due to global warming and the climate crisis. Scientists said that if the Amazon rainforest burned, we would reach the point of no return for climate, where human decisions to stop the collapse will already be innocuous. Well, the Amazon rainforest is burning. The bells are already tolling all over the planet for you, for us, for life and humanity as Ernest Hemingway said. Bells toll not only for you, but for all of life. The end has begun.

A year ago I called for a peace conference for Palestine without the first bomb having gone off. Today we have 20,000 children killed under bombs, and the presidents of the countries of human destruction laugh in these corridors. With the help of the communication power of the world media owned by big capital, they reorder the world without democracy, without freedom.

The democratic project of humanity is dying with its life, while the racists, the supremacists, those who stupidly believe that the Aryans are the superior race are preparing to dominate the world by wielding the terror of bombs on the peoples.

The control of humanity on the basis of barbarism is under construction and its demonstration is Gaza. When Gaza dies, humanity will die. It turns out that God's people were not Israel, nor the United States of America, but they were all of humanity and the children of Gaza that was what they were: humanity, God's chosen people. They are killing God's chosen people: the children of mankind.

There is a reason for this Armageddon of the contemporary world. There is a logic in the senselessness of governments that applaud genocide and that do not act soon to change economies towards **decarbonization.** The logic is not in the political world, nor in this lectern where all presidents speak. The logic is outside and it is called social inequality. Oxfam says that the richest 1% of humanity has more wealth than 95% of all humanity combined. It is in this achieved inequality, the greatest in our history as a species, where the logic of the massive destruction unleashed in the climate crisis and the logic of the bombs dropped by a criminal like Netanyahu on Gaza are found. Netanyahu is a hero for the richest 1% of humanity because he is able to show that peoples are destroyed under bombs. If we measure wealth in CO2 emitted and not in dollars, we have the answer: the richest 1% of humanity is responsible for the advancing climate crisis and opposes ending the world of oil and coal because it is the source of their wealth. Politicians, including the presidents of the most powerful countries on earth, simply obey them. They pay for the campaigns, they are the owners of the media, they are the ones who hide the truth of science, as in the movie "Don't Look Up", they are the ones who say what is thought, what is said and what should be banned and silenced. In their power of prohibition and censorship they shout "long live fucking freedom", but it is only the freedom of the richest 1% of the world's population that in their mercantile and free feeling leads us to the destruction of the atmosphere and life. The free market was not freedom but the maximization of death. That richest 1% of humanity, the powerful global oligarchy, is the one that allows bombs to be dropped on the women, elderly and children of Gaza, or Sudan, or to economically blockade the rebel countries that do not fit into their domination, because they need to show their power of destruction to the remaining 99% of humanity so that they will be allowed to continue directing the power of the world

and appropriating and accumulating more and more of its wealth.

The global oligarchy is leading humanity to its own extinction. And politics pays homage to him by completely abandoning the idea of freedom and the power of peoples, the idea of democracy. The question that must be asked from this rostrum is whether the peoples will be left behind. There is no more time, governments are unable to stop the extinction of life. Today we have to choose whether it is life or greed, whether it is humanity or capital.

I can only say to the peoples of the world from the weak voice of a country without weapons of mass destruction, but beautiful for its natural and cultural diversity, the country of beauty and butterflies of all colors, that it is no longer the time of governments but the hour of the peoples. **Time is over, either** we raise the flag of life or our towns will be filled with cemeteries as the epidemic showed us. It is the time of the peoples and we must act locally and agree globally. Fossil capital cannot continue. **The people must stop it.** The poison spewed into **the atmosphere is fatal and the chimneys that emit it must stop.** Every corner of the world can be a battle against those chimneys.

A century ago, a red flag was raised in the hands of the working class multitudes talking about a revolution against capital. That world is over. Lost in the gigantism of states and the absence of freedom, the red flag did not find its place in the history of humanity.

But today, with all the more reason, no longer to defend a class, a system of ideas, but to defend collective life, the flag raised is needed again, **perhaps no longer red but of all colors**, a flag of all humanity to defend its own existence on the planet.

Perhaps the word socialism today has a new meaning. The brains that are the true basis of work today are more connected than ever. Today human knowledge is more collective than ever. Helping each other has always been the magic that allowed us to survive for a million years. Individuals alone are weak and end up in the hands of fentanyl, of human defeat. People are strong if we help each other, and this help reaches a planetary scale. Mutual aid, the collective construction of knowledge, humanity as a new political subject, is the basis of a new meaning of socialism.

We are the most advanced of life, intelligent life. Intelligent life must defend itself and defend other lives from the global oligarchy. A new wealth must be built no longer based on oil but on intensity, on creative and free work that allows the very high productivity achieved, including artificial intelligence that must be controlled by a global public power.

Productivity allows free and creative time, the networking of human brains, the greatest power ever achieved and this neural network of humanity is the one that can allow us to win with the flag raised, the flag of life.

I no longer speak to Biden, to Macron, or to Scholz, or to Xi Jin Ping, or to Putin. From China I gather its idea of a dialogue between civilizations, from Europe its project of a social pact, from the United States its love for the original democracy of its founding fathers, from South America its hurricane diversity, its standard-bearer, its Simón Bolívar, from Africa its drums that call us to communicate with the spirits of nature, from Jesus the idea of universal love, its union of light with life.

From those sources of civilization that are in all the peoples of the world we must draw the forces of the greatest battle for life in human history. That battle is undoubtedly a World Revolution.

We need to build the greatest army of all time, made up of warriors of life. The army of life will not have the weapons of the global oligarchy, it will not have nuclear weapons, it will not compete for weapons, nor will it have the money in the hands of the banks, nor the power to destroy children in the genocides of the oligarchy, but it will have the greatest power of all, the power of a united humanity that will not allow itself to be taken away from its existence on the planet.

There is only one point of infinitesimal life in millions of light years around the universe and it is called earth, and in it there is a higher life that is intelligent life, humanity. We cannot let this pearl of the universe be extinguished. Without life, only inert darkness would dominate and it is that inert darkness that fills the heart of the global oligarchy and its clay idols.

It is up to humanity to fight, it is the time of the peoples. If governments could not and decided to play with bombs and senseless wars, innocuous power games, then it is time to take the solution of humanity's great problems into the hands of the people themselves. Instead of addressing **insensitive rulers**, **let us address ourselves**, **the common people**, **let us address the peoples in order to coordinate common actions**, the demonstrations of another democratic power. In the midst of this power of humanity converted into an active consciousness, new governments and new leaderships will appear. If life defeats its extinction, it will no longer be the global oligarchy that governs, it will be overthrown to build global democracy. A new story, therefore, is about to begin.

Russia's Oil Flows Slump, Driving Earnings to an Eight-Month Low

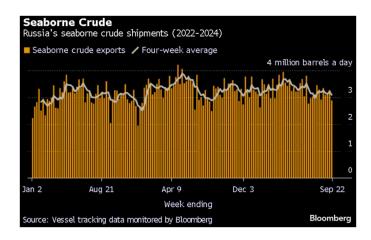
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By Julian Lee

(Bloomberg) -- Russia's crude shipments tumbled to the lowest since July last week, sending the country's gross income from the critical trade to the smallest in around eight months. Four-week average crude volumes dropped to 3.1 million barrels a day in the week to Sept. 22, down by 115,000 barrels a day from the previous period. Weekly flows, which are more volatile, fell by about 390,000.

A four-day gap in activity at the Kozmino export terminal on Russia's Pacific coast suggests that maintenance work at the port, or the pipeline supplying it, sparked a sharp drop in the country's eastern flows.

Gross income shrank to the lowest since late January on both a weekly and four-week basis, as the decline in volumes outweighed the first price gain for the country's flagship Urals crude in three weeks. That \$3-a-barrel boost nudged the grade back above the \$60 threshold that the G7 nations sought to impose on Moscow as punishment for the Ukraine invasion.



The US is adding to the pressure on the Kremlin caused by recent oil price weakness. The Treasury Department's Office of Foreign Assets Control has asked at least one shipping insurer for information on 14 companies it suspects may have violated sanctions on Russian oil.

Russia's average oil-processing levels from Sept. 12-18 dropped to 5.28 million barrels a day, the lowest weekly level since late June, as the nation's refineries are entering seasonal maintenance.

Crude Shipments

A total of 27 tankers loaded 20.23 million barrels of Russian crude in the week to Sept. 22, vessel-tracking data and port-agent reports show. The volume was down from a revised 22.95 million barrels on 31 ships the previous week.

Tankers Loading Crude at Russian Terminals 27 tankers loaded Russian crude in the week to September 22					
Week ending	September 22	September 15	September 8		
Primorsk (Baltic)	10	5	7		
Ust-Luga (Baltic)	6	8	6		
Novorossiysk (Black Sea)	3	3	3		
Murmansk (Arctic)	2	2	2		
Other Arctic	0	1	 0		
Kozmino (Pacific)	4	10	9		
De Kastri (Pacific)	2	1	2		
Prigorodnoye (Pacific)	0	1	 0		
Total	27	31	29		
Source: Vessel tracking data monitored by Bloomberg Note: Based on date of completion of cargo loading. Excludes ships loading cargoes identified as Kazakhstan's KEBCO grade. Bloomberg					

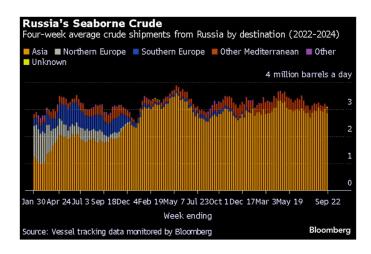
It means Russia's seaborne daily crude flows in the week to Sept. 22 fell by about 390,000 barrels to 2.89 million. That's the lowest since the first week of July.

The less volatile four-week average also fell, dropping by 115,000 barrels a day to 3.1 million from 3.21 million the previous week. It's only the third time this year that this measure of shipments has dropped so low.

Crude shipments so far this year are about 60,000 barrels a day below the average for the whole of 2023.

The slump in flows from Kozmino was largely offset by a surge in shipments from the Baltic port of Primorsk.

Two cargoes of Kazakhstan's KEBCO crude were loaded at Novorossiysk on the Black Sea during the week.



Russia terminated its export targets at the end of May, opting instead to restrict production, in line with its partners in the OPEC+ oil producers' group. The country's output target is set at 8.978 million barrels a day until the end of November, after a planned easing of some output cuts was delayed by two months.

Moscow has also pledged to make deeper output cuts in October and November this year, then between March and September of 2025, to compensate for pumping above its OPEC+ quota earlier this year.

Russian data show the nation got very close to meeting its OPEC+ crude-output target last month, following a push from the group to improve adherence to its supply deal.

Export Value

The gross value of Russia's crude exports fell to \$1.29 billion in the seven days to Sept. 22, from \$1.43 billion in the period to Sept. 15. The drop in weekly flows was only partly offset by an increase in prices for Russia's major crude streams.

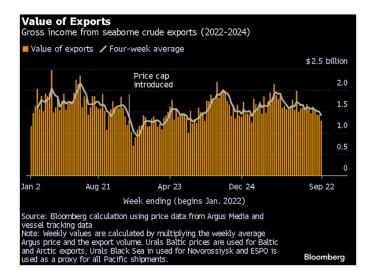
Export values at Baltic ports were up week-on-week by about \$3 a barrel, while shipments from the Black Sea rose by about \$2.90 a barrel. Prices for key Pacific grade ESPO also increased by about \$2.90 compared with the previous week. Delivered prices in India rose less strongly, increasing by about \$1.50 a barrel, all according to numbers from Argus Media.

Urals crude shipped from Russia's Baltic ports traded at an average \$62.50 last week, Argus Media data showed. That was after the average dropped below \$60 a barrel the previous week, the first time it had been below the G7 price cap since December.

Four-week average income fell to its lowest since January, dropping to about \$1.42 billion a week. The four-week average

peak of \$2.17 billion a week was reached in the period to June 19, 2022.

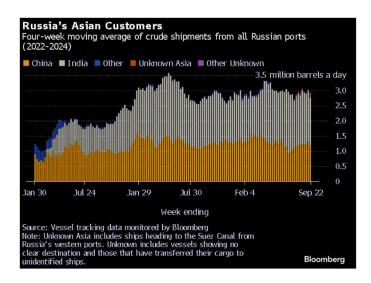
During the first four weeks after the Group of Seven nations' price cap on Russian crude exports came into effect in early December 2022, the value of seaborne flows fell to a low of \$930 million a week, but soon recovered.



Flows by Destination

* Asia

Observed shipments to Russia's Asian customers, including those showing no final destination, rose to 2.92 million barrels a day in the four weeks to Sept. 22. That's about 10% below the average level seen during the recent peak in April.



About 1.2 million barrels a day of crude was loaded onto tankers heading to China. The Asian nation's seaborne imports are boosted by about 800,000 barrels a day of crude delivered from Russia by pipeline, either directly, or via Kazakhstan. Flows on ships signaling destinations in India averaged 1.57 million barrels a day, down from a revised 1.67 million for the period to Sept. 15.

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

The equivalent of about 100,000 barrels a day was on vessels signaling Port Said or Suez in Egypt. Those voyages typically end at ports in India or China and show up as "Unknown Asia" until a final destination becomes apparent.

The "Other Unknown" volumes, running at about 50,000 barrels a day in the four weeks to Sept. 22, are those on tankers showing no clear destination. Most originate from Russia's western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others may be moved from one vessel to another.

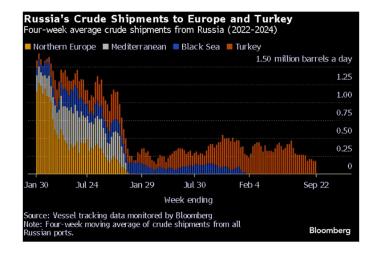
Greece has extended naval exercises in an area that's become associated with the transfer of Russian crude until November. These naval drills haven't entirely halted ship-to-ship transfers of Russian crude in the area, though. The supertanker Alma recently received crude from two smaller tankers, Sagar Violet and Arlan, in a narrow channel located between two areas that have been closed to shipping. TK TK

4 weeks ending	China	India	U Other	nknown Asia U	Other Inknown	Total
August 18, 2024	1.23	1.60	0.03	0.07	0.00	2.93
August 25, 2024	1.24	1.77	0.03	0.04	0.00	3.07
September 1, 2024	1.23	1.71	0.03	0.00	0.00	2.96
September 8, 2024	1.22	1.67	0.03	0.00	0.00	2.92
September 15, 2024	1.31	1.67	0.00	0.05	0.00	3.03
September 22, 2024	1.20	1.57	0.00	0.10	0.05	2.92

* Europe and Turkey

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

Turkey is now the only short-haul market for shipments from Russia's western ports, with flows in the 28 days to Sept. 22 rising to about 220,000 barrels a day. That's the most in five weeks.



NOTES

This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the gross value of

those flows. The next update will be on Tuesday, Oct. 1. All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through Novorossiysk and Ust-Luga and are not subject to European Union sanctions or a price cap. The Kazakh barrels are blended with crude of Russian origin to create a uniform export stream. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies. Vessel-tracking data are cross-checked against port agent reports as well as flows and ship movements reported by other information providers including Kpler and Vortexa Ltd. If you are reading this story on the Bloomberg terminal, click for a link to a PDF file of four-week average flows from Russia to key destinations.

2024 World Oil Outlook 2050

Foreword

For OPEC, it is a great honour to launch the World Oil Outlook (WOO) 2024 in Brazil. The country's comprehensive and inclusive approach to energy issues has been on display through its G20 presidency in 2024, and will no doubt be central to its hosting of COP30 in 2025. This stance is fully in line with OPEC's development of its WOO, as well as the Charter of Cooperation between OPEC and participating non-OPEC countries, a voluntary framework for dialogue and a platform for multilateralism.

This year's WOO provides governments, policymakers and people around the world with realistic and sustainable future energy pathways. Central and common realities pervade all pathways: the fact that the world requires more energy in the decades to come, available in a secure, stable and sustainable manner; the imperative of energy access for all; and the need to reduce emissions.

Over the past year, there has been further recognition that the world can only phase in new energy sources at scale when they are genuinely ready, economically competitive, acceptable to consumers and with the right infrastructure in place. Moreover, there is a need to continually recognize the different national circumstances and approaches for all nations, keeping in mind inclusivity, and the principle of 'common but differentiated responsibilities'.

The WOO 2024, with the Outlook this year extended to 2050, looks to weave together all the various strands of the current debates and discussions on energy. This means understanding the needs and ambitions of every energy consumer around the world, appreciating what each energy source can offer, and finding ways forward that can deliver energy security, energy availability, affordability and emissions reduction. It is not about fixating on one part to the detriment of the others. The world needs to deliver on them all.

The need for more energy comes as economies grow, populations expand and urbanization levels increase. We should also remember the fact that billions of people are playing energy catch up, with too many lacking access to modern energy services, such as basic lighting and clean cooking options, and many more having never owned a car, been on an airplane, or travelled outside of their home country.

Global energy demand in this year's WOO is set to expand by 24% in the period to 2050, driven by significant expansion in the non-OECD region. The Outlook sees the need for an expansion in all energy sources, with the exception of coal. For oil alone, we see demand reaching over 120 million barrels a day by 2050, with the potential for it to be higher. There is no peak oil demand on the horizon.

What the Outlook underscores is that the fantasy of phasing out oil and gas bears no relation to fact.

Combined they make up well over 50% of the energy mix today and are expected to do the same in 2050.

A realistic view of demand growth expectations necessitate adequate investments in oil and gas, today, tomorrow, and for many decades into the future.

For oil alone, investment requirements out to 2050 total \$17.4 trillion. All policymakers and stakeholders need to work together to ensure a long-term investment-friendly climate, one that works for producers and consumers, as well as developed and developing countries.

At the same time, the WOO also highlights the need to ramp up efforts to reduce emissions, continually improve efficiencies, and introduce lower carbon solutions. In this regard, the oil industry is already playing a role.

At COP28, in OPEC Member Country, the United Arab Emirates, 50 oil and gas companies representing more than 40% of global oil production pledged to reach near-zero upstream methane emissions and end routine flaring in their operations by 2030. The oil industry is also investing in technologies, such as carbon capture utilization and storage, direct air capture, clean hydrogen technologies, and others. The industry is showing that it is possible to reduce emissions, while also producing the oil the world needs.

As the WOO underscores once again, the platform for building a sustainable energy future for all not only comes from stability in energy markets, as pursued by OPEC through the Declaration of Cooperation with non-OPEC producers, but also through teamwork, data transparency and international cooperation.

The WOO 2024 provides a basis for this, underlining the realities on the ground, and the importance of developing pragmatic policies that can help the world navigate the complexities of tomorrow's energy landscape. Ones that deliver for consumers, producers, and enable societal mobility, economic growth and a reduction in emissions.

I would also like to take this opportunity to thank all those involved in producing this year's WOO. It is a tremendous achievement, one that everyone should be proud of, and a publication we believe offers valuable insights into the key questions that are central to our shared energy future.

Haitham Al Ghais

Secretary General



Organization of the Petroleum Exporting Countries

2024

World Oil Outlook 2050



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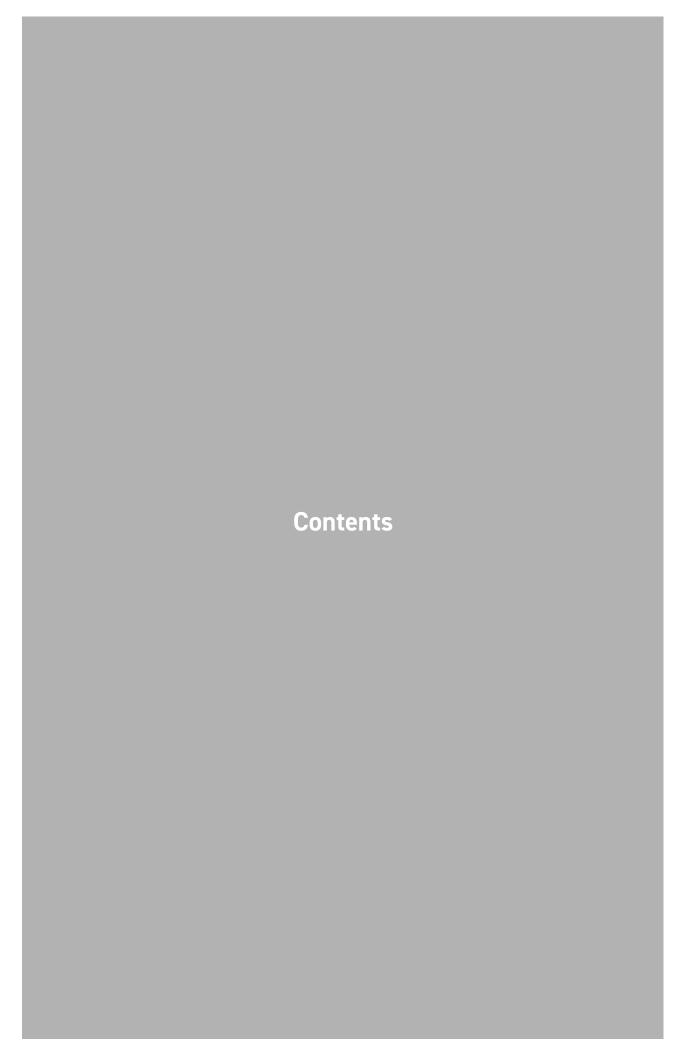
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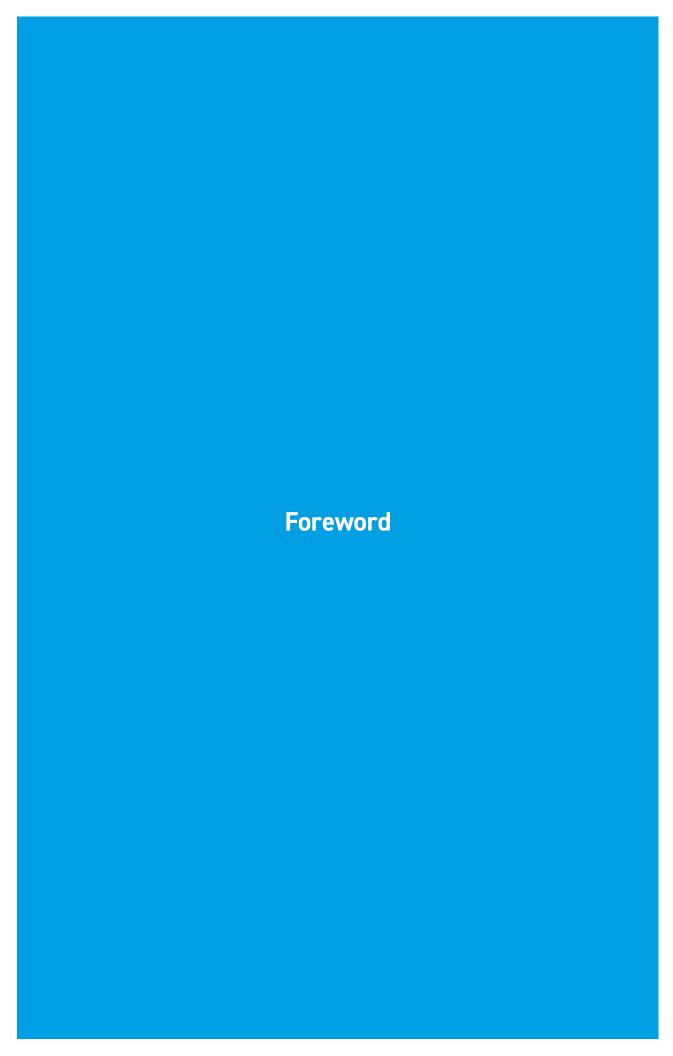
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For OPEC, it is a great honour to launch the World Oil Outlook (WOO) 2024 in Brazil. The country's comprehensive and inclusive approach to energy issues has been on display through its G20 presidency in 2024, and will no doubt be central to its hosting of COP30 in 2025. This stance is fully in line with OPEC's development of its WOO, as well as the Charter of Cooperation between OPEC and participating non-OPEC countries, a voluntary framework for dialogue and a platform for multilateralism.

This year's WOO provides governments, policymakers and people around the world with realistic and sustainable future energy pathways. Central and common realities pervade all pathways: the fact that the world requires more energy in the decades to come, available in a secure, stable and sustainable manner; the imperative of energy access for all; and the need to reduce emissions.

Over the past year, there has been further recognition that the world can only phase in new energy sources at scale when they are genuinely ready, economically competitive, acceptable to consumers and with the right infrastructure in place. Moreover, there is a need to continually recognize the different national circumstances and approaches for all nations, keeping in mind inclusivity, and the principle of 'common but differentiated responsibilities'.

The W00 2024, with the Outlook this year extended to 2050, looks to weave together all the various strands of the current debates and discussions on energy. This means understanding the needs and ambitions of every energy consumer around the world, appreciating what each energy source can offer, and finding ways forward that can deliver energy security, energy availability, affordability and emissions reduction. It is not about fixating on one part to the detriment of the others. The world needs to deliver on them all.

The need for more energy comes as economies grow, populations expand and urbanization levels increase. We should also remember the fact that billions of people are playing energy catch up, with too many lacking access to modern energy services, such as basic lighting and clean cooking options, and many more having never owned a car, been on an airplane, or travelled outside of their home country.

Global energy demand in this year's WOO is set to expand by 24% in the period to 2050, driven by significant expansion in the non-OECD region. The Outlook sees the need for an expansion in all energy sources, with the exception of coal. For oil alone, we see demand reaching over 120 million barrels a day by 2050, with the potential for it to be higher. There is no peak oil demand on the horizon.

What the Outlook underscores is that the fantasy of phasing out oil and gas bears no relation to fact. Combined they make up well over 50% of the energy mix today and are expected to do the same in 2050. A realistic view of demand growth expectations necessitate adequate investments in oil and gas, today, tomorrow, and for many decades into the future.

For oil alone, investment requirements out to 2050 total \$17.4 trillion. All policymakers and stakeholders need to work together to ensure a long-term investment-friendly climate, one that works for producers and consumers, as well as developed and developing countries.

At the same time, the W00 also highlights the need to ramp up efforts to reduce emissions, continually improve efficiencies, and introduce lower carbon solutions. In this regard, the oil industry is already playing a role.



FOREWORD

At COP28, in OPEC Member Country, the United Arab Emirates, 50 oil and gas companies representing more than 40% of global oil production pledged to reach near-zero upstream methane emissions and end routine flaring in their operations by 2030. The oil industry is also investing in technologies, such as carbon capture utilization and storage, direct air capture, clean hydrogen technologies, and others. The industry is showing that it is possible to reduce emissions, while also producing the oil the world needs.

As the WOO underscores once again, the platform for building a sustainable energy future for all not only comes from stability in energy markets, as pursued by OPEC through the Declaration of Cooperation with non-OPEC producers, but also through teamwork, data transparency and international cooperation.

The WOO 2024 provides a basis for this, underlining the realities on the ground, and the importance of developing pragmatic policies that can help the world navigate the complexities of tomorrow's energy landscape. Ones that deliver for consumers, producers, and enable societal mobility, economic growth and a reduction in emissions.

I would also like to take this opportunity to thank all those involved in producing this year's WOO. It is a tremendous achievement, one that everyone should be proud of, and a publication we believe offers valuable insights into the key questions that are central to our shared energy future.

Haitham Al Ghais Secretary General





Outlook extended to 2050, further underscoring the challenges of energy security and reducing emissions

This year's World Oil Outlook (WOO) extends its perspective through to 2050, shedding further light on pivotal global trends and shifts. This includes looking at what each energy can offer in terms of delivering energy security, energy availability and reducing emissions, with an emphasis on the need for just and inclusive future energy pathways for all. The outlook examines economic, demographic, policy and technological developments to provide a balanced and realistic outlook based on real world data.

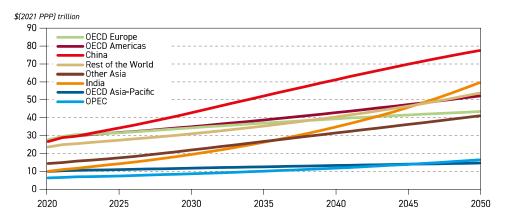
Global population growth, urbanization trends, drive energy demand requirements

The outlook is underscored by a robust increase in the world's population, with projections indicating a rise to 9.7 billion by 2050 from a level of just over eight billion today. This growth is predominantly driven by a substantial demographic surge in non-OECD regions. Urbanization trends are set to intensify, with an estimated two-thirds of the population, translating to over 6.6 billion people, expected to inhabit urban centres by the end of the forecast period. The global workforce, comprised of individuals between 15 and 64 years, is on course to exceed six billion by 2050, effectively integrating nearly 870 million new entrants into the labour market.

Average global economic growth of 2.9% p.a. through 2050

Global GDP is set to grow robustly, with an average annual increase of 2.9% per annum (p.a.) between 2023 and 2050. Non-OECD countries are set to lead this growth, expanding at an annual rate of 3.7%, while OECD nations experience more modest annual growth at 1.6%. As a result, in absolute terms the global economy is expected to more than double in size from \$165 trillion in 2023 to \$358 trillion in 2050.

Size of major economies, 2020-2050



Source: OPEC.

Energy policy ambitions remain high, but pushback on overly ambitious targets

COP28 in OPEC Member Country, the UAE, marked a significant milestone as it conducted the first global stocktake (GST) under the Paris Agreement. The importance of national contributions to emissions reduction was underscored, however, the GST also acknowledged the potential for disruptions due to various uncertainties. While energy policy ambitions



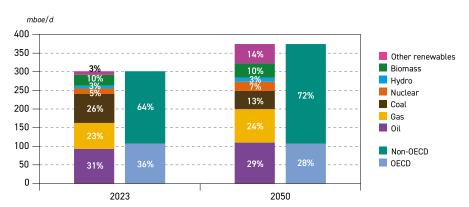
remain high, the outlook expects greater scrutiny and pushback on some overly ambitious policy targets, both from policymakers and populations. It is evident that energy security continues to be a paramount concern.

Technology will continue to significantly impact energy demand and supply

The WOO recognizes incremental technological advancements that help to improve efficiency and reduce costs, but does not assume sudden technology breakthroughs. Internal combustion engine (ICE) vehicles are expected to continue to dominate road transportation. Electric vehicles (EVs) are poised for a larger market share, but obstacles remain, such as electricity grids, battery manufacturing capacity and access to critical minerals. Elsewhere in transportation, the aviation sector is grappling with decarbonization challenges, while maritime shipping is embracing alternative fuels. A significant expansion of carbon abatement capacity, mainly carbon capture utilization & storage (CCUS), is expected.

Global primary energy demand to increase by 24% to 2050, driven by the non-OECD

Global primary energy demand is set to increase from 301 million barrels of oil equivalent a day (mboe/d) in 2023 to 374 mboe/d in 2050, an increase of 24% over the outlook period. Energy demand growth is driven by developing regions (non-OECD), which are projected to see an increase of 73.5 mboe/d. Around 30% of non-OECD growth comes from India alone. At the same time, primary energy demand in OECD countries drops slightly. The share of the non-OECD in global primary energy demand increases to 71.5% in 2050, up by 7 percentage points from 2023.



Total primary energy demand by fuel and region, 2023 and 2050

Source: OPEC.

Demand for all energy sources increases, except coal; wind and solar grow at the fastest rate

In the Reference Case, with the exception of coal, demand for all primary fuels is set to increase over the outlook period. The largest increase is expected to come from other renewables (mainly wind and solar), with absolute growth of almost 43 mboe/d, expanding from 9.6 mboe/d in 2023 to 52.4 mboe/d in 2050. The second largest increase is anticipated from natural gas, rising by 20.5 mboe/d through 2050. Oil demand is expected to grow significantly, increasing by 16.7 mboe/d. Increments in the period 2023–2050 are expected from nuclear energy (9.6 mboe/d) and biomass (8.2 mboe/d), as well as hydro (4 mboe/d). Due to stringent energy policies in most regions, coal demand is forecast to decline by almost 29 mboe/d between 2023 and 2050.



World primary energy demand by fuel type, 2023-2050

	Levels <i>mboe/d</i>						Growth mboe/d	Growth % p.a.		share %
	2023	2030	2035	2040	2045	2050	2023-2050	2023-2050	2023	2050
Oil	92.9	103.1	106.0	107.4	108.5	109.6	16.7	0.6	30.9	29.3
Coal	78.0	71.6	66.1	60.0	54.4	49.1	-28.9	-1.7	25.9	13.1
Gas	69.1	75.9	80.6	84.8	87.9	89.6	20.5	1.0	23.0	24.0
Nuclear	14.8	17.0	18.9	20.9	22.7	24.3	9.6	1.9	4.9	6.5
Hydro	7.6	8.6	9.2	9.9	10.7	11.6	4.0	1.6	2.5	3.1
Biomass	29.1	32.1	34.0	35.5	36.5	37.4	8.2	0.9	9.7	10.0
Other renewables	9.6	19.0	27.1	35.1	43.6	52.4	42.9	6.5	3.2	14.0
Total	301.1	327.3	342.0	353.7	364.4	374.1	72.9	0.8	100.0	100.0

Source: OPEC.

The share of oil and gas in the energy mix stays above 53% through 2050, with oil retaining the largest share at above 29%

Big shifts in the energy mix are seen throughout the outlook period, but oil and gas are set to remain crucial for energy supply in the period to 2050. Their combined share in the energy mix is expected to stay above 53% throughout the outlook period. Oil retains the largest share at 29.3% in 2050, with gas at 24%.

Oil demand sees robust medium-term growth and reaches over 120 mb/d by 2050, driven by the non-OECD

Global oil demand is projected to reach 112.3 million barrels a day (mb/d) in 2029, representing a strong increase of 10.1 mb/d compared to 2023. However, the regional breakdown of this medium-term expansion shows a contrasting picture between continued non-OECD demand growth and rather stagnating OECD demand. Non-OECD oil demand is projected to increase by a healthy 9.6 mb/d between 2023 and 2029 to reach 66.2 mb/d, while OECD demand is set to oscillate around 46 mb/d over the same period.

In the long term, global oil demand is expected to increase by almost 18 mb/d, rising from 102.2 mb/d in 2023 to 120.1 mb/d in 2050. While non-OECD demand is projected to increase by 28 mb/d between 2023 and 2050, OECD demand is set to witness a decline.

Long-term oil demand by region

mb/d

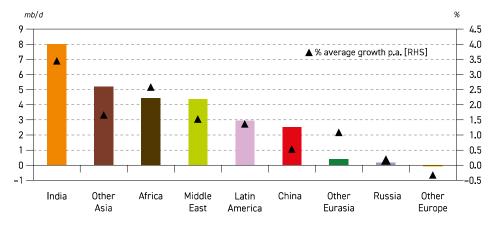
	2023	2030	2035	2040	2045	2050	Growth 2023-2050
OECD Americas	25.0	25.6	24.9	23.5	22.2	21.1	-3.8
OECD Europe	13.4	13.1	12.1	11.0	10.0	9.2	-4.2
OECD Asia-Pacific	7.2	7.2	6.7	6.1	5.7	5.2	-2.0
OECD	45.7	45.9	43.7	40.6	37.9	35.6	-10.1
China	16.4	18.6	19.0	19.2	19.1	18.9	2.5
India	5.3	7.1	8.6	10.2	11.8	13.3	8.0
Other Asia	9.3	11.2	12.3	13.1	13.8	14.5	5.2
Latin America	6.7	8.0	8.8	9.2	9.5	9.7	3.0
Middle East	8.6	10.7	11.5	12.1	12.6	13.0	4.4
Africa	4.5	5.4	6.2	7.0	7.9	8.9	4.4
Russia	3.8	4.1	4.1	4.1	4.1	4.0	0.2
Other Eurasia	1.2	1.4	1.5	1.5	1.6	1.6	0.4
Other Europe	0.8	0.8	0.8	0.8	0.8	0.7	-0.1
Non-OECD	56.6	67.4	72.7	77.2	81.1	84.6	28.0
World	102.2	113.3	116.4	117.8	118.9	120.1	17.9



India drives incremental long-term demand growth

Extending the outlook's time horizon to 2050 amplifies the role of India, Other Asia, Africa and the Middle East as the key sources of incremental demand in the coming years. Combined demand in these four regions is set to increase by 22 mb/d between 2023 and 2050. India alone will add 8 mb/d to its oil demand during the forecast period. China's oil demand is projected to increase by 2.5 mb/d.

Non-OECD regional oil demand growth, 2023-2050



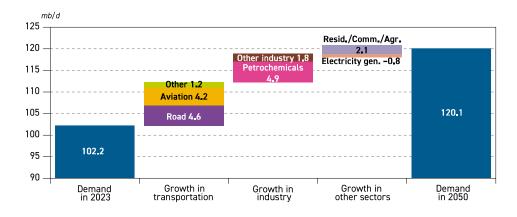
Source: OPEC.

Petrochemicals, road transport and aviation are critical for future demand growth

The largest incremental demand during the forecast period is projected for the petrochemicals, road transportation and aviation sectors. Oil demand in these sectors in the long term is set to increase by 4.9 mb/d, 4.6 mb/d and 4.2 mb/d, respectively.

Demand projections in the road transportation sector indicate strong growth over the current decade before stabilizing at levels above 50 mb/d for the rest of the forecast period. By then,

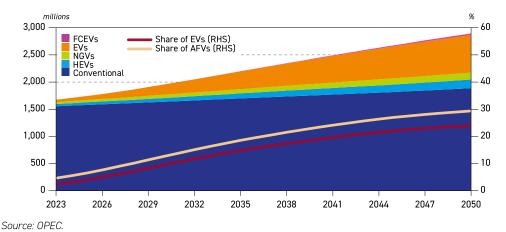
Oil demand growth by sector, 2023-2050





the penetration of EVs is set to increasingly play a role. The global vehicle fleet is forecast to increase from 1.7 billion in 2023 to 2.9 billion in 2050 with the fastest growth expected in the EVs segment. Nevertheless, ICE-based vehicles are expected to continue to dominate the global fleet and still account for more than 70% in 2050.

Global fleet composition, 2023-2050

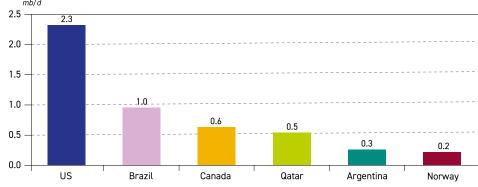


Petrochemical and transportation trends shift the global product slate to a much lighter average barrel

With respect to refined products, strong long-term demand growth is expected for ethane/liquefied petroleum gas (+4.2 mb/d). The larger part of this demand growth relates to the use of ethane as a petrochemical feedstock, mainly in OECD Americas and the Middle East. The strong projected demand growth in the petrochemical sector, especially in Asia, is set to lead to increased naphtha demand (+2.8 mb/d) too. Demand growth in the aviation sector sees jet/kerosene rising by 4 mb/d between 2023 and 2050, while road transportation is the key sector for increases in diesel/gasoil (+3.5 mb/d) and gasoline (+2.5 mb/d).

US, Brazil and Canada drive medium-term non-DoC liquids supply growth of 7.1 mb/d This year's WOO focuses on non-Declaration of Cooperation (non-DoC) liquids supply. In the medium term, non-DoC liquids supply is projected to increase from 51.7 mb/d in 2023 to

Select contributors to non-DoC total liquids change, 2023-2029





58.8 mb/d in 2029, or by 7.1 mb/d. Once again, the largest medium-term source of non-DoC liquids supply growth is the US, where total output is set to rise by 2.3 mb/d in the 2023–2029 period, or from 20.9 mb/d to 23.2 mb/d. Other significant supply increments in this timeframe come from Brazil (1 mb/d), Canada (0.6 mb/d), Qatar (0.5 mb/d), Argentina (0.3 mb/d) and Norway (0.2 mb/d).

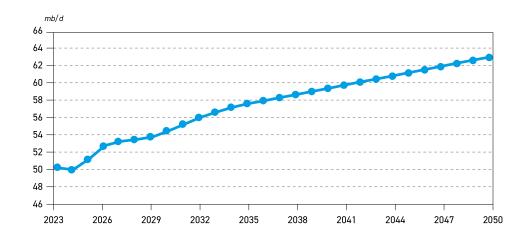
Non-DoC supply growth slows in the long term, after US supply peaks in 2030

Long-term non-DoC liquids supply expands from 51.7 mb/d in 2023 to 57.3 mb/d in 2050, or by 5.5 mb/d. Despite US production declining over this time horizon, after peaking around 2030, this is more than offset by higher output in Latin America, Canada, the (non-DoC) Middle East and global refinery processing gains. Other regions see only modest change.

DoC liquids supply grows by 12.7 mb/d from 2023-2050, increasing market share to 52%

DoC liquids supply is projected to expand from 50.3 mb/d in 2023 to 53.8 mb/d in 2029. After non-DoC liquids supply peaks in the early 2030s, DoC liquids supply by contrast keeps growing, rising to 62.9 mb/d by 2050. This means that the DoC's share in global liquids supply increases from 49% in 2023 to 52% in 2050.

Declaration of Cooperation (DoC) total liquids



Source: OPEC.

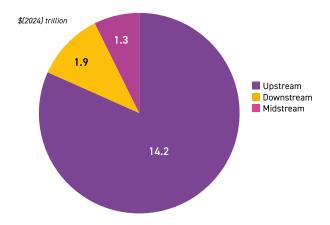
Oil sector requires cumulative investments of \$17.4 trillion by 2050 to meet growing demand needs

In order to reliably meet expected oil demand growth, oil sector investment needs are significant. Total cumulative requirements between 2024 and 2050 are estimated at \$17.4 trillion, or around \$640 billion p.a. on average (all in US\$2024).

The bulk of this is required in the upstream, where total investment needs are \$14.2 trillion, or around \$525 billion p.a. Downstream and midstream investment needs over the same period are forecast to be \$1.9 trillion and \$1.3 trillion, respectively.



Cumulative oil-related investment requirements by segment, 2024-2050

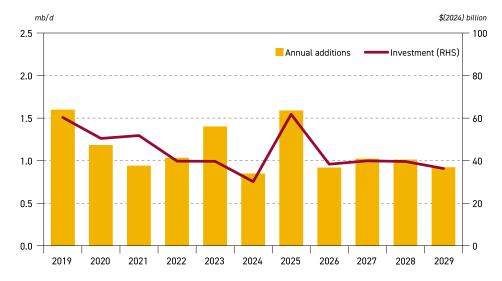


Source: OPEC.

Developing regions drive medium-term refinery expansions

In the medium term, around 6.3 mb/d of refining capacity additions are expected at the global level. The majority of new capacity is projected for the Asia-Pacific (3.2 mb/d), Africa (1.4 mb/d) and the Middle East (1.2 mb/d). The global annual average rate of capacity additions for the period from 2024–2029 is estimated at just above 1 mb/d.

Annual distillation capacity additions and total project investment



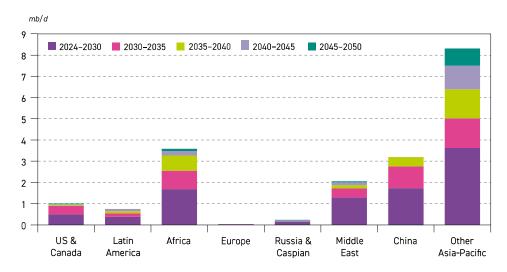
Source: OPEC.

New crude distillation capacity requirements estimated at 19.2 mb/d through 2050

Global required refining additions to 2050 are projected at 19.2 mb/d (including creep capacity expansions). Similar to oil demand growth, refining capacity additions are front-loaded, with a slowdown in the rate of additions after 2040. Almost 90% of new refining capacity is set to be located in the Asia-Pacific, Africa and the Middle East. This is a continuation of the historical trend that sees refining capacity migrating from developed to developing countries.



Crude distillation capacity additions, 2024-2050



Source: OPEC.

Strong refinery throughput growth expected in developing countries

Refinery runs are expected to increase from 81.8 mb/d in 2023 to almost 90 mb/d in 2030. The growth is set to be slower in the post-2030 period with global runs reaching 93 mb/d in 2040 and nearly 94 mb/d in 2050. US & Canada and Europe, as well as developed Asia-Pacific, are set to decline from 2030 onwards. This is more than offset by strong increases in developing regions, such as Asia-Pacific, Middle East, Africa and Latin America.

Crude unit throughputs, 2023-2050

mb/d

	US & Canada	Latin America	Africa	Europe	Russia & Caspian	Middle East	China	Other Asia-Pacific	Global
2023	17.7	4.6	1.8	11.8	6.6	8.0	14.8	16.7	81.8
2030	18.0	5.6	3.5	11.5	6.5	9.6	16.3	18.9	89.8
2035	18.0	6.1	4.4	11.2	6.2	10.0	16.5	20.0	92.4
2040	18.0	6.5	5.0	9.9	6.1	10.2	16.3	20.9	93.0
2045	17.6	6.7	5.2	9.7	6.1	10.4	16.3	21.4	93.4
2050	17.0	6.9	5.5	9.5	6.1	10.6	16.2	22.0	93.8

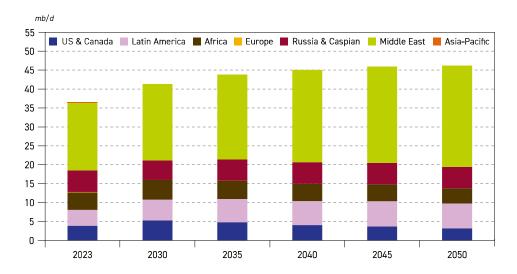
Source: OPEC.

Global crude and condensate trade flows rise to 46.2 mb/d by 2050

Global interregional crude oil and condensate trade are expected to increase from 36.5 mb/d in 2023 to 41.2 mb/d by 2030 on the back of strong oil demand growth. After 2030, trade is expected to continue to increase further, reaching levels around 46.2 mb/d by 2050. The Middle East and Latin America are expected to be the main contributors to global crude and condensate exports throughout the outlook period.



Global crude and condensate exports by origin*, 2023-2050

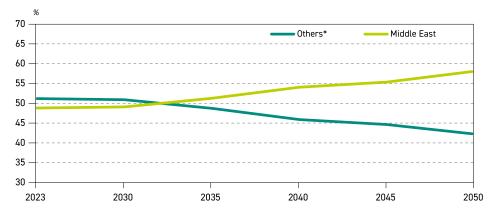


^{*} Only trade between major regions is considered, intratrade is excluded. Source: OPEC.

Middle East increases its share in global crude and condensate trade

Global crude and condensate exports are heavily dominated by the Middle East, with its share standing at almost 49% in 2023. Due to a strong increase in crude and condensate exports from Latin America and the US & Canada, the Middle East's share is expected to decline marginally by 2030. In the post-2030 period, however, the Middle East's share in the total export mix is projected to increase to almost 58% by 2050.

Middle East share in global crude and condensate trade, 2023-2050



^{*} Including Latin America, Russia & Caspian, Africa and the US & Canada. Source: OPEC.

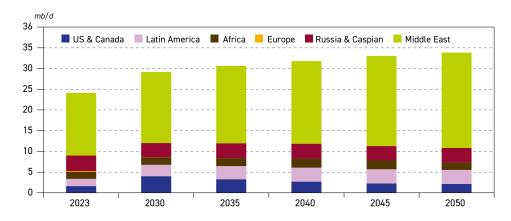
Asia-Pacific crude and condensate imports rise by almost 10 mb/d by 2050

Total crude and condensate import volumes to the Asia-Pacific reached levels of around 24 mb/d in 2023. They are expected to increase to above 29 mb/d in 2030 and rise further



to around 33.8 mb/d in 2050. This is predominantly due to increasing oil demand in the Asia-Pacific, but also because of declining domestic supply from ageing local oilfields. The major source of incremental volumes is set to come from the Middle East, with shipments increasing from 15.1 mb/d in 2023 to 23 mb/d in 2050.

Crude and condensate imports to the Asia-Pacific by origin, 2023-2050

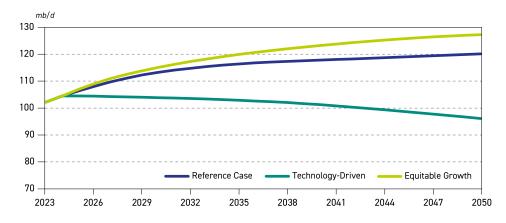


Source: OPEC.

Scenarios emphasize wide range of uncertainty for future energy and oil demand

This Outlook describes two alternative scenarios relative to the Reference Case. The 'Technology-Driven' Scenario illustrates a different pathway to the dominant narrative on emissions reduction; one that achieves the goal of limiting the global temperature increase at well below 2°C, while avoiding a substantial negative economic impact on developing economies, especially those who export energy, and at the same time, ensuring a high degree of energy security. Global oil demand in this scenario stabilizes at a level above 100 mb/d in the period to around 2040, before moderately slowing to 96 mb/d over the last ten years

Global liquids demand in the Reference Case and alternative scenarios, 2023-2050





of the outlook period. This represents a demand difference of 24 mb/d compared to the Reference Case in 2050.

By contrast, the 'Equitable Growth' Scenario illustrates a pathway that envisages a more equitable and prosperous economic future for developing countries, coupled with a differentiated approach to how and when to achieve emission reduction targets. This scenario results in higher long-term energy demand, in general, and oil, in particular. Oil demand in this scenario tops 115 mb/d by 2030 and continues growing to 127 mb/d in 2050. Compared to the Reference Case, this is higher by almost 2 mb/d in 2030 and by 7.1 mb/d in 2050.

Energy and oil industry face both challenges and opportunities

The long-term outlook for the energy sector remains uncertain. The challenge of how to balance sustainable, equitable development with much-needed energy affordability and energy security, while at the same time addressing climate concerns, has led to much debate and polarization among key stakeholders. The Outlook discusses critical issues, challenges and opportunities that the global energy industry, in general, and the oil industry, in particular, could face in the coming decades, touching on such factors as energy policy and climate negotiations, investment and the role of new technologies.





Key takeaways

- This year's W00 extends the outlook period to 2050.
- The global population is expected to rise by about 1.6 billion, from its current level of just over eight billion in 2023 to an estimated 9.7 billion by 2050.
- The global working-age population is projected to surpass six billion by 2050, with around 870 million workers added to the labour force over the forecast period.
- An estimated 68% of the world's population, or over 6.6 billion people, are expected to live in urban areas by the end of the outlook period.
- Global gross domestic product (GDP) growth between 2023 and 2050 is expected to remain robust and increase at an average rate of 2.9% p.a. Non-OECD countries dominate the growth outlook with an expected average rate of 3.7% p.a., while OECD countries are expected to grow at a rate of 1.6% p.a.
- The global economy is set to more than double in size in absolute terms from \$165 trillion in 2023 to \$358 trillion in 2050, while global average income is projected to rise from roughly \$20,600 (2021 PPP) in 2023 to \$36,800 (2021 PPP) by 2050.
- COP28 concluded the first GST under the Paris Agreement, emphasizing the importance of national contributions to the reduction of emissions.
- Energy security concerns are likely to remain paramount for decision makers, with an anticipated greater pushback and scrutiny of new energy policies on several fronts.
- The WOO assumes a gradual evolution of technology, with no sudden technological breakthroughs, the timing and impact of which are challenging to forecast.
- ICE vehicles will remain predominant in road transport, while EVs continue to encounter challenges related to driving range, supply chains and reliable charging infrastructure. However, these issues are expected to improve over the long term.
- Aviation transport remains one of the most difficult sectors to decarbonize, whereas
 major technological advancements have resulted in the adoption of alternative fuels
 in the maritime shipping sector.
- The oil industry's infrastructure, technological expertise and capacity for investment, position it uniquely to lead in hydrogen production, distribution and storage.





Key takeaways

- Global primary energy demand is set to increase from 301 mboe/d in 2023 to 374 mboe/d in 2050, an increase of 24% over the entire outlook period.
- Energy demand growth slows gradually from relatively high short-term rates to more modest growth in the long term. This reflects slower population and economic growth, as well as rising energy efficiency in final use and energy transformation.
- Energy demand growth is driven by developing regions (non-OECD), which are projected to see an increase of 73.5 mboe/d over the outlook period. Around 30% of non-OECD growth comes from India alone. Energy demand in OECD countries drops slightly.
- In the Reference Case, demand for all primary fuels is set to increase in the long term, with the exception of coal.
- The strongest incremental demand in the outlook period is expected for other renewables (mostly wind and solar), which increases by almost 43 mboe/d, based on strong policy support and favourable economics in many regions. The share of other renewables in the energy mix rises from around 3.2% in 2023 to 14% in 2050.
- Natural gas demand is expected to increase by 20.5 mboe/d and reach 89.6 mboe/d
 in 2050. Natural gas will play an important role in CO₂ emissions reductions by
 replacing coal in the power generation mix.
- Oil demand is projected to increase by almost 16.7 mboe/d in the period to 2050 and reach 109.6 mboe/d. Oil's share in the energy mix declines from almost 31% in 2023 to 29.3% in 2050, but it remains the fuel with the largest share in the energy mix by 2050.
- The combined share of oil and gas in the energy mix remains above 53% throughout the outlook period.
- Coal is the only primary fuel expected to see a demand decline, dropping by about 29 mboe/d due to energy policy and climate commitments, as well as ageing power plants. Demand falls from almost 78 mboe/d in 2023 to just above 49 mboe/d in 2050, predominantly due to developments in China and OECD countries.
- Energy intensity is projected to decline in all regions, leading to a global average reduction rate of slightly more than 2% p.a. in the period to 2050. India and China are expected to see the largest reduction in energy intensity, with annual average rates of 3.2% p.a. and 3.1% p.a., respectively.
- While progress has been made in reducing energy poverty and narrowing the
 disparity between developed and developing countries, there are, in part, still wide
 gaps and much work needs to be done. Energy poverty and lack of energy access
 remain urgent global issues that require concerted efforts from policymakers to
 ensure affordable and sustainable energy for all.





Key takeaways

- The current energy policies debate calls for energy transition pathways in which countries move in parallel, albeit at different speeds and in multiple ways that reflect their specific circumstances.
- Global oil demand is projected to reach 112.3 mb/d in 2029, representing a robust increase of 10.1 mb/d compared to 2023.
- Non-OECD oil demand is projected to increase by 9.6 mb/d between 2023 and 2029 to reach more than 66 mb/d. In contrast, OECD demand is set to drop by 0.5 mb/d over the same period.
- In the long term, global oil demand is projected to rise by almost 18 mb/d from 102.2 mb/d in 2023 to 120.1 mb/d in 2050.
- Long-term projections show a contrasting picture between continued strong demand growth in non-OECD and declining demand in OECD. While non-OECD demand is projected to increase by 28 mb/d between 2023 and 2050, OECD demand is set to drop by more than 10 mb/d.
- Extending the time horizon of this WOO to 2050 amplifies the role of India, Other Asia, the Middle East and Africa as key sources of incremental demand growth. Combined demand in these four regions is set to increase by 22 mb/d between 2023 and 2050.
- India alone is set to add 8 mb/d to its oil demand during the outlook period.
- China's oil demand is projected to increase by 2.5 mb/d over the outlook period. This
 demand increase is front-loaded, however, with around 2.2 mb/d materializing over
 the current decade.
- The largest incremental demand growth over the outlook period is projected for the petrochemicals, road transportation and aviation sectors. Oil demand in these sectors is set to increase by 4.9 mb/d, 4.6 mb/d and 4.2 mb/d, respectively.
- Road transportation demand projections indicate strong growth within the next ten years, before it stabilizes at levels above 50 mb/d for the rest of the outlook period.
- The global vehicle fleet is expected to increase from 1.7 billion in 2023 to 2.9 billion in 2050 with the fastest growth expected in the EVs segment. Nevertheless, ICE-based vehicles are set to continue to dominate the global fleet over the outlook period and still account for more than 70% in 2050.
- With respect to refined products, major long-term demand growth is expected for ethane/liquefied petroleum gas (4.2 mb/d), followed by jet/kerosene (4.0 mb/d), gasoil/diesel (3.5 mb/d), naphtha (2.8 mb/d) and gasoline (2.5 mb/d).



Last year's Outlook included a significant upward oil demand revision, compared to previous editions. This was a reflection of an ongoing shift in the narrative related to energy transitions as governments and policymakers reevaluated their sustainable energy pathways. At the fore of concerns were issues related to energy security and affordability. On the back of geopolitical tensions, there was a broad realization across many societies, especially in Europe, but also more generally in the Global North, on the need for energy security to go hand-in-hand with economic development and reducing emissions. At the same time, countries in the Global South raised their voices that energy unaffordability prevents them from improving accessibility and made it clear that these issues are central for their future energy transition pathways.

Developments since then clearly indicate that the public debate about these issues has broadened further, highlighting the need for solutions that enable the Global South to improve accessibility first, before sustainability issues are addressed. Past debate on energy transitions was guided by the concept of a 'green' energy transition, focusing almost exclusively on replacing fossil fuels by renewable energy and pushed primarily by Europe. This concept created a very narrow pathway with limited transition options that did not work even for developed countries, not to mention developing countries. Instead, the current debate calls for building pathways for the whole world where countries can move in parallel, albeit at different speeds and in multiple ways that reflect their specific circumstances.

In doing so, it is important that policymakers take the lessons learnt from past developments. One of them was the overly optimistic expectation that the cost of deploying renewable energy will continue to decline significantly with technological progress and economies of scale. A reminder is needed that this theoretical concept only works assuming that everything else remains constant. This, however, is not the case in reality as other barriers (geopolitics, inflation, trade barriers, taxes etc.) can gradually emerge, which can offset the impact of technological progress. Over the past year, there have been a number of renewable projects that have been reassessed, deferred or even canceled due to unfavourable economics.

The next large expectation is that the cost of EVs will drop significantly in the years to come, hence, considerably impacting global oil demand. The lessons learned related to renewables, however, calls for a more cautious expectation on EVs too. This is especially true when observing the recent decisions of several major car manufacturers to delay investments in increasing EV production capacity, as well as reassess their strategy targets. This shift is also visible at the policy level. Recent examples include a much softer proposal for the Euro 7 emission norm, compared to its first proposal, discussions about the US EPA emission standards for model year 2027+ vehicles, and the UK's decision to shift the sales ban on ICEs to 2035.

To be clear, the cost of EVs and renewable electricity will likely decline further, and EV sales and renewable capacity will increase in the years to come. The underlying message is about the rate of growth, a cautious warning against an overly ambitious expectation of how fast they will penetrate energy markets and substitute oil-based products. This reflects another lesson from the past years that energy policies alone, regardless of how ambitious they are, are not sufficient to drive energy transitions. In fact, realistic energy policies must meet technological readiness and working economics to be successful. If these crucial components do not go hand-in-hand, the most frequent result is energy scarcity created by policy design.

Besides continued policy discussion on the direction of energy transitions, there have been a number of other developments impacting future oil demand. Inflationary pressure has eased somewhat since the time of publishing of the last Outlook, which has allowed central banks



to put further fiscal tightening on hold and even start considering a reversal to lower interest rates. This, in turn, has brightened economic prospects in several countries and regions, at least in the medium term.

Good progress has also been made in achieving better energy efficiency across all sectors of consumption. Examples included the aviation sector, smarter grids, further replacement of traditional materials by petrochemical products, and the introduction of mobile CCUS technologies for trucks and ships. The use of AI to improve and optimize processes, especially for maintenance work in large energy facilities and distribution networks has also attracted a lot of attention although its net impact on energy demand is still to be fully determined. Remarkable growth was also achieved in the sales of EVs in China, although EV growth in other regions has been much less impressive. At the same time, however, overall vehicle sales increased after weak pandemic years, hence, supporting continued oil demand growth.

This was clearly seen during 2023 when oil demand proved to be resilient to downward revisions and finished with an annual increase of 2.6 mb/d. Relatively strong demand growth is also projected for 2024 and beyond, resulting in another upward revision to long-term global oil demand. This chapter tries to capture these demand trends at the regional, sectoral and product level, and identify critical factors that will steer future demand in the period to 2050.

3.1 Oil demand outlook by region

Following the largest annual oil demand decline in history of 9.1 mb/d in 2020 on the back of the COVID-19 pandemic, demand was on a recovery path during the years 2021–2023. This recovery broadly concluded during 2023 when oil demand increased by 2.6 mb/d, despite high energy prices, high inflationary pressure, geopolitical tensions and a slowdown in global economic growth to 3.1%, compared to 3.3% in 2022.

The strong demand growth in 2023 was the result of a combination of factors. Almost half of this demand increase took place in China. This was partly due to integral growth linked to economic development, including the correction of a misaligned link between oil demand and economic activity, and partly a recovery from the lockdowns experienced in 2022, especially in the road transportation and aviation sectors. These two factors also largely explain the 2023 demand growth in other developing countries that accounted for another 1.1 mb/d in total. Moreover, a policy shift to focus more on energy security and energy access also played a role in this group of countries.

Looking ahead, these factors will continue to play a role, although with varying impacts. Evidently, the demand recovery impact from the COVID-19 recovery will continue to diminish, with the aviation sector being the last one still effected by the scars of the pandemic. Finding a new equilibrium link between oil demand and economic activity will likely take longer, while the implications of policy shifts will increasingly play a role in the longer term.

It is important to note that a large part of the 2023 demand growth took place in developing Asia and the Middle East. Combined, these two regions accounted for 2.1 mb/d of the incremental demand. The remaining non-OECD regions contributed 0.4 mb/d, while oil demand in the OECD only increased by 0.1 mb/d. This is a clear indication that demand growth is shifting even further to non-OECD regions and the link between economic growth and oil demand in the OECD is weakening – a trend that is expected to accelerate in the years to come.



A confirmation of this trend is clearly visible in Table 3.1 and Figure 3.1, which outline oil demand prospects at the regional and global levels in the period to 2029.

Table 3.1 **Medium-term oil demand in the Reference Case**

mb/d

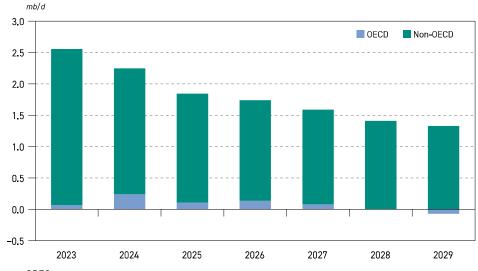
	2023	2024	2025	2026	2027	2028	2029	Growth 2023-2029
OECD Americas	25.0	25.2	25.3	25.4	25.5	25.6	25.7	0.7
OECD Europe	13.4	13.5	13.5	13.5	13.4	13.3	13.2	-0.2
OECD Asia-Pacific	7.2	7.2	7.3	7.3	7.3	7.3	7.2	0.0
OECD	45.7	45.9	46.0	46.1	46.2	46.2	46.1	0.5
China	16.4	17.1	17.5	17.8	18.0	18.2	18.4	2.0
India	5.3	5.6	5.8	6.0	6.3	6.6	6.9	1.5
Other Asia	9.3	9.6	9.9	10.2	10.5	10.8	11.0	1.7
Latin America	6.7	6.9	7.1	7.3	7.5	7.7	7.8	1.2
Middle East	8.6	8.9	9.3	9.7	10.0	10.3	10.6	1.9
Africa	4.5	4.6	4.7	4.8	4.9	5.1	5.2	0.8
Russia	3.8	3.9	4.0	4.0	4.1	4.1	4.1	0.3
Other Eurasia	1.2	1.2	1.3	1.3	1.3	1.3	1.4	0.2
Other Europe	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0
Non-OECD	56.6	58.6	60.3	61.9	63.4	64.8	66.2	9.6
World	102.2	104.5	106.3	108.0	109.6	111.0	112.3	10.1

Source: OPEC.

Figure 3.1 shows that, at the global level, the medium-term period will be marked by a gradual demand growth deceleration, but overall, however, demand remains robust even at the end

Figure 3.1

Annual incremental oil demand by region, 2023-2029

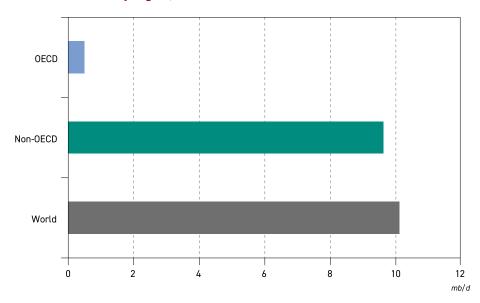


of the period. The main reason for this pattern over the medium term is strong demand growth in non-OECD countries where average annual incremental demand is projected at 1.6 mb/d. Annual demand additions in this region are set to slowly decline over the medium term, but they remain at a strong 1.3 mb/d even in 2029.

Strong non-OECD demand growth will be further supported by continuously expanding OECD demand during most years of the medium-term period. Supported by higher economic growth, oil demand in this region is expected to increase in the coming years, especially in OECD Americas. This, however, will cease sometime around 2028 when the OECD demand dynamic is expected to revert to a gradual decline. This shift will start in OECD Europe in 2026, followed by OECD Asia-Pacific in 2027. As a result, the annual OECD demand decline is expected to be approximately 0.1 mb/d by 2029. Despite this, total OECD demand by 2029 will be around 0.5 mb/d higher compared to 2023.

The overall impact of these trends is that global oil demand is set to reach 112.3 mb/d in 2029, representing a robust increase of more than 10 mb/d compared to 2023. Figure 3.2 summarizes these projections from the perspective of major regions. It shows a contrasting

Figure 3.2 Incremental oil demand by region, 2023–2029



Source: OPEC.

picture between continued non-OECD demand growth and rather stagnating demand in the OECD during the medium term. Indeed, non-OECD oil demand is projected to increase by 9.6 mb/d between 2023 and 2029 to reach a level of 66.2 mb/d, while OECD demand oscillates around a level of 46 mb/d over the same period.

Turning to long-term demand prospects, these are presented in Table 3.2. It shows that global oil demand is projected to reach a level of 120.1 mb/d in 2050, almost 18 mb/d higher than that observed in 2023. Extending the period of this Outlook to 2050 amplifies the trends set out in the second part of the medium-term period with respect to the divergent regional

Table 3.2 **Long-term oil demand in the Reference Case**

mb/d

	2023	2030	2035	2040	2045	2050	Growth 2023-2050
OECD Americas	25.0	25.6	24.9	23.5	22.2	21.1	-3.8
OECD Europe	13.4	13.1	12.1	11.0	10.0	9.2	-4.2
OECD Asia-Pacific	7.2	7.2	6.7	6.1	5.7	5.2	-2.0
OECD	45.7	45.9	43.7	40.6	37.9	35.6	-10.1
China	16.4	18.6	19.0	19.2	19.1	18.9	2.5
India	5.3	7.1	8.6	10.2	11.8	13.3	8.0
Other Asia	9.3	11.2	12.3	13.1	13.8	14.5	5.2
Latin America	6.7	8.0	8.8	9.2	9.5	9.7	3.0
Middle East	8.6	10.7	11.5	12.1	12.6	13.0	4.4
Africa	4.5	5.4	6.2	7.0	7.9	8.9	4.4
Russia	3.8	4.1	4.1	4.1	4.1	4.0	0.2
Other Eurasia	1.2	1.4	1.5	1.5	1.6	1.6	0.4
Other Europe	0.8	0.8	0.8	0.8	0.8	0.7	-0.1
Non-OECD	56.6	67.4	72.7	77.2	81.1	84.6	28.0
World	102.2	113.3	116.4	117.8	118.9	120.1	17.9

Source: OPEC.

oil demand pathways of OECD and non-OECD countries. Indeed, the long-term prospect for the OECD is for a continued demand decline to levels below 41 mb/d by 2040, and then even further to below 36 mb/d at the end of the outlook period. This represents an overall demand decline of more than 10 mb/d compared to 2023.

This projected OECD demand decline is the result of a variety of factors, primarily driven by the policy setup in this region. In an effort to reduce energy-related emissions, policies have been set to foster technological development and provide incentives for their implementation, to use energy more efficiently across all sectors of consumption and to substitute oil with electricity and gas as much as possible. Important elements in these efforts is the gradual penetration of EVs in the road transportation sector, the displacement of oil-based heating systems in residential and industrial sectors, a further reduction of oil demand in the electricity sector and the penetration of alternative fuels in the marine and aviation sectors. Moreover, this region's demand decline is expected to be supported by a rather static, but ageing total population, and relatively low long-term economic growth.

It is worth mentioning that long-term OECD demand projections represent an upward revision compared to last year's Outlook. The main reason for this adjustment is a less optimistic outlook for the penetration of EVs in the region's vehicle fleet that reflect recent policy developments and the less ambitious plans of car manufacturers. Moreover, besides the road transportation sector, a softening policy setup will also impact other consuming sectors. This is likely to lead to slower oil substitution by other energy forms, hence, slightly higher oil demand compared to last year's projections.

In contrast to the OECD, oil demand in the non-OECD is set to expand over the entire outlook period. The non-OECD demand increase of 9.6 mb/d during the medium-term period will almost



double in the long term, with the total demand increase between 2023 and 2050 amounting to 28 mb/d. The key factors contributing to this strong demand growth include robust economic growth; rising population and urbanization; a strong expansion of the middle-class and the related propensity to travel; expansion of the vehicle fleet, including commercial vehicles with a higher share of heavy-duty vehicles; expansion in the aviation sector; a shift from the traditional use of biomass to liquefied petroleum gas (LPG); transformation of the agricultural sector; and strong demand for petrochemical products.

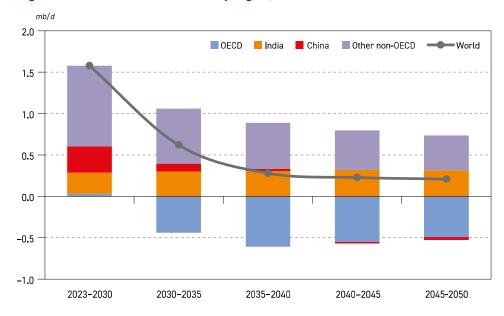
Naturally, non-OECD oil demand growth will not be uniform across all of its sub-regions. This is highlighted in Figure 3.3, which provides details on the evolution of demand in major regions and economies. In the period to 2030, the single largest average annual demand increment is set to come from China, followed by India, both growing by around 0.3 mb/d p.a. on average. However, demand growth in China is set to be strongest at the beginning of the outlook period and it then slows relatively quickly to less than 0.2 mb/d by 2030 and below 0.1 mb/d by 2035. In contrast, demand growth in India is anticipated to gradually accelerate from the initial range of 0.2 mb/d p.a. to 0.3 mb/d p.a. by 2030 and retain this momentum for the rest of the outlook period.

The largest part of incremental demand is set to be spread among other non-OECD countries. This growth will be mainly driven by Other Asia and the Middle East during the first half of the outlook period. However, oil demand in these two regions is expected to mature afterwards and growth levels will be overtaken by India and Africa towards the end of the outlook period.

Figure 3.3 also shows an evolving profile of global annual demand increments over the outlook period. The fastest demand growth - 1.6 mb/d p.a. on average - is projected for the remaining part of the current decade. Annual growth is then expected to slow to 0.6 mb/d over the next five years and below 0.3 mb/d for the period from 2035–2040. Demand growth is then set to stabilize around 0.2 mb/d for the rest of the outlook period.

Figure 3.3

Average annual oil demand increments by region, 2023–2050





Saudi Arabia ready to abandon \$100 crude target to take back market share

Oil price declines as Kingdom prepares to raise output from December

Saudi Arabia needs an oil price of close to \$100 a barrel, according to the IMF, as it seeks to fund a series of megaprojects © Simon Dawson/Bloomberg

Saudi Arabia ready to abandon \$100 crude target to take back market share on x (opens in a new window)

Tom Wilson in London AN HOUR AGO

Saudi Arabia is ready to abandon its unofficial price target of \$100 a barrel for crude as it prepares to increase output, in a sign that the kingdom is resigned to a period of lower oil prices, according to people familiar with the country's thinking.

The world's largest oil exporter and seven other members of the Opec+ producer group had been due to unwind long-standing production cuts from the start of October. But a two-month delay sparked speculation over whether the group would ever be able to raise output, with the price of Brent crude, the international benchmark, briefly dropping below \$70 this month to its lowest since December 2021.

However, officials in the kingdom are committed to bringing back that production as planned on December 1, even if it leads to a prolonged period of lower prices, the people said.

The prospect of Riyadh ditching its unofficial target hit the Brent price and the shares of oil companies on Thursday.

Saudi Arabia's energy ministry did not respond to a request for comment.

The shift in thinking represents a major change of tack for Saudi Arabia, which has led other Opec+members in repeatedly cutting output since November 2022 in an attempt to maintain high prices.

The price of Brent averaged \$99 a barrel in 2022, the highest level in eight years, as the fallout from Russia's invasion of Ukraine roiled markets, but has since fallen back.

By contrast, Brent crude was down 2 per cent on the day at \$71.99 on Thursday, while West Texas Intermediate, the US benchmark, dropped 2 per cent to \$68.28. The declines hit the share prices of Europe's big oil producers, with BP falling 3.6 per cent, Shell down 3.2 per cent and TotalEnergies off 3.1 per cent.

Increased supply from non-Opec producers, particularly the US, and weak demand growth in China, have reduced the impact of the group's cuts over time. Brent has averaged \$73 a barrel so far in September, even as Israel's war with Hamas in Gaza has threatened to escalate into a wider regional conflict.

Saudi Arabia needs an oil price of close to \$100 a barrel to balance its budget, according to the IMF, as Crown Prince Mohammed bin Salman seeks to fund a series of megaprojects at the heart of an ambitious economic reform programme.

However, the kingdom has decided it is not willing to continue ceding market share to other producers, the people said. It also believes it has enough alternative funding options to weather a period of lower prices, such as tapping foreign exchange reserves or issuing sovereign debt, they added.

A decade ago Saudi Arabia brought the \$100 a barrel oil era to a close, increasing output as prices fell in 2014 in an effort to thwart the rapid emergence of the US shale industry.

More recently, under energy minister Prince Abdulaziz bin Salman, the kingdom has sought to maximise revenues, cutting production to support prices.

However, the policy has at times inflamed tensions with the US, which tried and failed to get Riyadh to boost production in 2022 after Russia's invasion of Ukraine sent prices soaring.

Saudi Arabia has shouldered the majority of the Opec+ cuts to date, reducing its own production by 2mn barrels a day in the past two years, representing over one-third of the cuts by members.

The kingdom is currently pumping 8.9mn b/d, the lowest level since 2011, outside of the coronavirus pandemic and the 2019 attack on the state oil company's processing facility at Abgaig.

Under the delayed plan to begin unwinding the cuts, Saudi Arabia will increase its monthly production by an additional 83,000 b/d each month from December, boosting its output by a total of 1mn b/d by December 2025.

A key frustration for Saudi Arabia has been that several members of the cartel, including Iraq and Kazakhstan, have been partially ignoring the cuts by pumping more than their respective quotas.

Opec secretary-general Haitham Al Ghais visited both countries in August and extracted commitments that they would adjust their future production plans to compensate for past oversupply.

But Saudi Arabia remains concerned about compliance and could decide to unwind its own cuts faster than planned if either country does not toe the line, one of the people added.



https://ina.iq/eng/35027-an-agreement-has-been-reached-with-the-regional-government-to-review-its-oil-contracts-to-adapt-them-constitutionally.html

An agreement has been reached with the regional government to review its oil contracts to adapt them constitutionally



26-09-2024, 17:17

Baghdad - INA

The head of the Parliamentary Finance Committee, Atwan Al-Atwani, announced today, Thursday, an agreement with the Kurdistan Regional Government to review its oil contracts to adapt them constitutionally.

The media office of the Council of Representatives stated in a statement received by the Iraqi News Agency (INA) that "the parliamentary finance committee delegation currently visiting Erbil, headed by Atwan Atwani, held an expanded technical meeting with representatives of the Kurdistan Regional Government, today, Thursday, in the building of the Council of Ministers of the region; to discuss resolving the outstanding issues between Baghdad and Erbil.".

Atwani said - according to the statement: "The meeting reviewed the files of oil, financial revenues, automation of border crossings, unification of customs tariffs, and localization of employees' salaries."

He added, "We have developed a roadmap to resolve the points of contention between the central government and the regional government regarding the oil export file."

Atwani confirmed that "the attendees reached an initial agreement with the regional government to conduct a comprehensive review of oil contracts to adapt them to the Iraqi constitution, in preparation for resolving the problem of the region's halt in oil exports," explaining that "the agreement stipulates that the central government and the regional government enter as a unified party in negotiations with international oil companies operating in the region; to amend their contracts from production partnership to profit-sharing, in addition to reviewing the economic and

commercial conditions."

He pointed out that "the parliamentary finance committee is working to establish a sound basis for negotiating a solution to the outstanding issues, to resolve the oil export file during this year and eliminate the differences with the region," stressing that "the committee will meet with the federal oil ministry upon its return to Baghdad, to discuss the controversial issues and push towards resolving them under the umbrella of the constitution."

Al-Atwani continued, "The meeting reviewed, in numbers, the steps for implementing the file of localizing the salaries of the region's employees, where the necessity of adhering to the decisions of the Federal Court was emphasized."

Al-Atwani pointed out - according to the statement - that "the meeting also discussed the file of border crossings, customs and taxes, and ways to include their revenues in the country's general budget, and the extent of the regional government's commitment to sending these funds to the federal government."

Iraq parliament, Erbil agree to review oil contracts: MP

26-09-2024

Rudaw



Iraqi parliament's financial committee and KRG joint press conference in Erbil on September 26, 2024. Photo: handout

ERBIL, Kurdistan Region - With the goal of restarting oil exports that have been stalled for 18 months, the Iraqi parliament's financial committee and the Kurdistan Regional Government (KRG) on Thursday reached an initial agreement to review the Kurdish government's contracts with international oil companies, the head of the committee announced on Thursday.

Atwan al-Atwani, head of the federal parliament's financial committee, is leading a delegation visiting Erbil for meetings with KRG officials on a range of pressing issues between Erbil and Baghdad, primarily the suspension of oil exports.

The parliamentary committee "reached an initial agreement with the regional government to conduct a comprehensive review of oil contracts to adapt them to the Iraqi constitution, in preparation for solving the problem of stopping the region's oil exports," Atwani's office said in a statement.

He added that the deal stipulates that the federal and regional governments should enter negotiations with the international oil producers as a unified front, "with the aim of amending their contracts from production partnership to profit sharing, in addition to reviewing the economic and commercial terms."

Representatives from the KRG's financial, natural resources and planning ministries were in the meeting with the Iraqi lawmakers, Umed Sabah, president of the office (diwan) of the Council of Ministers, said in a statement.

They discussed issues related to oil, salaries of KRG's civil servants, border crossings and local revenues, Sabah said, without commenting on any agreements made.

"We notice that there is a serious intention to find convenient solutions for all issues," he said.

Kurdistan Region's oil exports through the Iraq-Turkey pipeline have been halted since March 2023, when a Paris-based arbitration court ruled in favor of Baghdad that Ankara had breached a 1973 pipeline agreement by allowing Erbil to begin independent oil exports in 2014.

Before the halt, Erbil exported around 400,000 barrels per day through the pipeline, in addition to some 75,000 barrels of Kirkuk's oil.

When it began its independent oil sector, the KRG signed production-sharing contracts with international oil companies. Under this model, the oil companies cover the entire cost of production while the KRG receives the lion's share of the profits from successful projects.

Baghdad has repeatedly said that these contracts violate the constitution and must be amended to match the service contracts that the federal government prefers before exports can resume.

The Association of the Petroleum Industry of Kurdistan (APIKUR), which represents companies operating in the Kurdistan Region, said on Sunday that it was "encouraged by the public statements from the Iraqi Prime Minister that the ITP [Iraq-Turkey Pipeline] can be reopened by the end of 2024."

Iraqi Prime Minister Mohammed Shia' al-Sudani is in New York to attend the United Nations General Assembly. Before he travelled, he told Bloomberg in a televised interview that "there are ongoing talks with the companies and with brothers in the Kurdistan Region. And we hope to reach a solution based on the legal paths."

He said a solution by the end of 2024 was "possible."

Myles Caggins, APIKUR spokesperson, told Rudaw's Bijar Bashqali on Thursday that "APIKUR has not received any official confirmation of the discussions between officials from the KRG and Iraqi Parliament. We continue to call for agreements to restore oil exports through the Iraq-Türkiye Pipeline line."

Updated at 8:20 pm

https://ina.iq/eng/34753-prime-minister-the-end-date-Prime Minister Mohammed Shia Al-Sudani of-the-coalitions-mission-in-iraq-will-be-announced-soon.html

Prime Minister: The End Date of the Coalition's Mission in Iraq Will Be Announced Soon



Today, 11:22

Baghdad - INA

Prime Minister Mohammed Shia Al-Sudani confirmed on Tuesday, that the announcement of the end date for the International Coalition's mission in Iraq will be made soon, noting that Iraq has transitioned from a phase of wars to one of stability.

In an exclusive interview with Bloomberg TV, followed by the Iraqi News Agency (INA), the Prime Minister said: "We will announce the end date of the International Coalition's mission in Iraq during our participation in the international conference against ISIS," explaining that "the conclusion of the coalition's mission in Iraq is part of the government's program".

He clarified that "the justifications for the presence of the International Coalition have ended, and there is no need for a coalition of 86 countries," adding that "based on this view and assessment, we initiated a frank dialogue with the International Coalition, which involved many discussions".

He continued: "Iraq respects the choices of the American people and we will deal with any administration that gains the confidence. It's of interest to us to activate the strategic framework agreement and building a relationship based on the principles outlined in that agreement".

He added: "I discussed the International Coalition issue with the U.S. president in Washington, and in August of last year, we formed a bilateral committee between military commanders to initiate the dialogue."

He pointed out that "the committee reached understandings on arranging the withdrawal of the International Coalition, and it was expected that the results would be presented and announced. However, out of our keenness not to mix things or create misunderstandings about the end of the coalitions' mission, it was decided to postpone the announcement until the participation in the international coalition conference against ISIS".

He also pointed out that "the understanding of our relationship with the United States and Iran is based on shared interests and mutual respect, and Iran has supported the political process and contributed to the defeat of ISIS".

He added that "Iraq is the only country that enjoys distinguished bilateral relations with both Iran and the United States, and through this relationship, we seek to help bringing opinions closer".

He further explained: "We do not want the actions of other countries to impact the situation in Iraq and the region; this is our strategy in terms of our bilateral and regional ties."

He emphasized: "Iraq today is not what it was in 2014. We defeated ISIS through sacrifices and the stance of the Iraqi people, as well as support from the international community and our friends. ISIS no longer poses a threat to the state. Iraq has shifted from a phase of wars to one of stability. The presence of ISIS members hiding in caves and deserts does not rise to the level of threatening stability and security".

He clarified that "the end of the International Coalition's mission does not mean the end of its relationship with Iraq." He confirmed, "We are engaged in discussions with the International Coalition countries to build sustainable security relationships and economic and cultural ties".

In a related context, the Prime Minister affirmed that "Iraq is an important country within OPEC, and we coordinate with our partners in OPEC+, especially with the Kingdom of Saudi Arabia, to adhere to the quotas."

He noted that "Iraq is committed to the voluntary reduction of oil exports to maintain prices and protect the interests of producers and consumers".

He continued: "Iraq committed to compensating for the slight increase in oil production," noting that "Iraq has begun reducing domestic production and exports in the oil market".

He stressed that "oil exports were halted through the Ceyhan port following the decision of the International Court of Arbitration in Paris," explaining that "there is a legal issue related to the decisions of the Federal Court regarding oil in the Kurdistan Region and the budget law".

He clarified that "the budget law set the average production cost at \$8 per barrel, while the average production cost under the contracts with companies in the Kurdistan Region is \$26 per barrel".

He confirmed that "Iraq is facing two options: either amend the contracts with the oil companies contracted with the Kurdistan Region or amend the budget law."

He pointed out that "the oil companies contracted with the Kurdistan Region refused to amend the production cost contracts".

He continued: "Iraq is keen to resolve the issue related to exports through the Ceyhan port, and talks are ongoing with the Kurdistan Region and the oil companies to reach a solution within the legal framework."

He expected that "a solution will be reached by the end of this year".

Iraq PM Says Cost Dispute Delays Restart of Key Oil Pipeline 2024-09-17 04:00:00.6 GMT

By Journanna Bercetche
(Bloomberg) -- The restart of a key Iraqi oil pipeline that's been shut for over a year is being held up by

disagreements over costs, the nation's prime minister said, a setback that's inadvertently helping the country get closer to its OPEC production limit.

Baghdad hasn't been able to agree how much to pay international oil companies operating in the country's north for their production. The federal administration's budget allows it to pay \$8 for every barrel of oil produced, while contracts with the Kurdistan Regional Government give the firms \$26, Iraqi Prime Minister Mohammed Shia Al-Sudani said. The impasse has hit output from the region and delayed the pipeline's resumption. "We have to look at how to balance those issues," he said in an interview with Bloomberg TV in Baghdad on Sunday. "Do we look at the budget to see what we can do or we try and look at the prices?" The closure of the pipeline that can transport almost half a million barrels a day of oil from Kurdistan to the Turkish coast is resulting in billions of dollars of lost revenue. Yet restarting it would pose a dilemma for Iraq, which has failed to adhere to its OPEC+ output limit amid pressing financial needs, but has repeatedly said it will compensate for overproducing. The failure to meet the limits has been a point of contention with OPEC+ de facto leader Saudi Arabia. "We are committed to abide by the OPEC decisions and to preserve the price of oil in order to balance the interest of the users and the producers," Al-Sudani said.

Pipeline Problems

Turkey halted the pipeline in March last year after an arbitration court ordered it to pay Iraq \$1.5 billion in compensation for transporting oil through the link without Baghdad's approval. Ankara, which claimed the pipe was shut because it needed repairs after two massive earthquakes in February, said in October that it was ready for operations and it was up to Iraq to resume flows.

But financial and legal issues emerged, such as remunerating companies for costs. International firms have said they also want their past dues — including \$1 billion for oil produced between September 2022 and March 2023 — cleared. With exports shut, the companies have been producing some crude and selling it locally. Iraqi officials have previously said this output caused problems for complying with quotas set by the Organization of Petroleum Exporting Countries. Iraq has a production limit of 4 million barrels a day, but produced 4.32 million a day last month, according to data compiled by Bloomberg. The country, along with some others in OPEC+, will gradually raise these limits starting in December. Al-Sudani is keen to increase production in the long-term after years of war and internal strife hit Iraq's industry and oil output. BP Plc in August signed an initial agreement to help

boost output from the Kirkuk region. Iraq has also been rehabilitating and upgrading damaged refineries to help cut fuel imports. "Because of wars and siege over the last four decades, Iraq was late in really using the wealth that we have in terms of gas and oil properly," the prime minister said. "And now we're looking at how we can really exploit what we have in terms of new wealth and also to see how can use them effectively."

Diversifying the Economy

But he said oil's drop in London to around \$72 a barrel — near the lowest levels since 2021 — emphasized the need to diversify the economy. Iraq is OPEC's biggest oil producer after Saudi Arabia and derives the vast bulk of its revenue from exporting the commodity. It needs prices far above where they are now to balance its budget.

Click here to watch more of the interview with Al-Sudani. The International Monetary Fund has long said the country needs to develop its private sector and that economic progress is held back by its huge public-sector wage bill, with successive governments doing little to check high pay rises. Al-Sudani said his administration was looking to invest around 40% of petroleum revenues in Iraq to boost the non-oil sector. He added that a planned trade corridor stretching from Iraq's southern Basra province to Turkey and then on to Europe was "a dream" for his country. He's looking to Gulf states to help fund what's meant to be a \$17 billion project.

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China's Imports of Iranian Oil Heads for Another Record: Kpler

2024-09-27 03:48:28.458 GMT

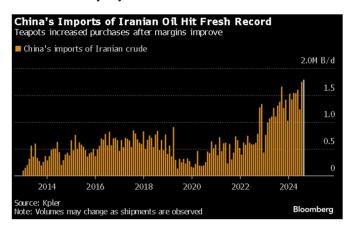
By Bloomberg News

(Bloomberg) -- China's imports of Iranian oil are poised to reach a new record of 1.79m b/d this month, data from Kpler show.

That's higher than the previous peak of 1.75m b/d set last month, according to Kpler data going back to Jan. 2013

Shipments into Dalian rose to 186k b/d and a record volume of 137k b/d observed with "unknown" buyers

CDU refining margins at Shandong teapots rose to 376 yuan (\$54) a ton in early Sept., highest since end-2023, according to data tracked by Mysteel OilChem



- * READ: China's Teapots See Rise in CDU Margins, Run Rates: OilChem
- * READ: Key Russian Oil Grade Flips to Rare Premium as New Buyers Emerge
- * READ: China Refinery Run Rates Rise to Highest Since End-May: OilChem

https://www.straitstimes.com/asia/se-asia/malaysia-rebuffs-us-on-iran-oil-sales-says-it-recognises-only-unsanctions

Malaysia rebuffs US on Iran oil sales, says it recognises only UN sanctions

Zunaira Saieed Malaysia Correspondent

UPDATED MAY 09, 2024, 11:51 PM

KUALA LUMPUR – Malaysia will recognise sanctions imposed by the United Nations only and not by individual countries, said Home Minister Saifuddin Nasution Ismail on May 9, following claims by a top US official that Iran has relied on Malaysian service providers to sell US-sanctioned oil in the region.

"I emphasised that we will only recognise sanctions if they are imposed by the United Nations Security Council.

"The delegation from the US respected our stance," Datuk Seri Saifuddin told reporters following a meeting with the US Treasury Department's top sanctions official Brian Nelson, who was visiting Kuala Lumpur.

Washington <u>has imposed sanctions on Iran and its proxies</u>, including on the sale of Iranian oil, aimed at choking money flows that it claimed were being used to foment instability in the Middle East.

Mr Nelson, speaking to the local media after the meeting, said of the Washington claims against Malaysian service providers: "I would only say we have seen and we've promulgated some sort of guidance to the (Malaysian) marine sector about the type of services that they are engaging in.

"These are ship-to-ship transfers, particularly at night, which we see from time to time.

"They are really designed to obfuscate the origin of the commodity, in this case, Iranian oil," he told Malaysiakini.

Mr Nelson had said that the capacity of Iran to move its oil depended on parties such as port administrators and tugboat operators.

"Typical markers that we see are like when they turn off their location device and when they're trying to obscure the name of the ship, or they falsify or forge critical documents about the commodities that were issued," he added.

A recent Reuters report cited an unnamed senior US Treasury official as saying that there has been an uptick in money moving to Iran and its proxies, including Hamas, through the Malaysian financial system.

In the meeting with Mr Nelson, Mr Saifuddin said he underlined Malaysia's commitment to combating terrorism financing, with a clear strategic plan to tackle illicit financing activities and money laundering.

The minister also acknowledged concerns raised by US officials over possible money laundering activities involving certain individuals and organisations in Malaysia with purported ties to Iran and its proxies like Hamas, and said these needed verification.

Malaysian government spokesman Fahmi Fadzil, speaking to reporters on May 8, said the country would comply with UN sanctions, but not necessarily with those imposed by individual countries.

"We want to assert that Malaysia, as a sovereign nation, we comply with UN sanctions," Mr Fahmi told reporters.

"But when it comes to unilaterally applied sanctions, then I think we have to assess this situation."

Commenting on the issue, economics professor Geoffrey Williams at the Malaysia University of Science and Technology said: "Malaysian businesses can do business with anyone unless there are UN sanctions regulations to stop it, but the US cannot stop Malaysian companies doing business with others.

"However, if Malaysian companies are involved in activities that the US does not like, then the Americans can stop doing business with them," he said.

Malaysian Prime Minister Anwar Ibrahim has been vocal in his support for Hamas amid the ongoing war in Gaza, even at the risk of US sanctions against those who support the group that Washington has deemed a terrorist organisation.

Meanwhile, Mr Nelson, who earlier visited Singapore, had said that sanctions imposed in 2023 against four Malaysian firms accused of helping Iran's drone production have been impactful, while also highlighting the issue of the illicit sale of Iranian oil in the region.

"Malaysia clearly doesn't want its financial institutions and its shipping industry to be abused by rogue nations and outside actors. We don't want that because of the central importance of Malaysia, both as a trading nation and as a financial centre, and given America's significant business presence here," Mr Nelson, who is the US Treasury Department's undersecretary for terrorism and financial intelligence, told reporters on May 9.

Mr Halmie Azrie Abdul Halim, a senior analyst at political risk consultancy Vriens and Partners, said the US delegation trip to Malaysia is an "intimidation tactic" because of Datuk Seri Anwar's pro-Palestine stance.

Still, the "US would also not want to lose the support of Malaysia, which is one of its key Asean partners, as the country will assume the role of Asean chair next year", he said.

Malaysia is among the US' top 20 trading partners, with bilateral trade between the two nations amounting to US\$78.3 billion (S\$106 billion) in 2022.

https://gcaptain.com/us-navy-oiler-usns-big-horn-aground-forcing-carrier-strike-group-to-scramble-for-fuel/



Military Sealift Command's fleet replenishment oiler USNS Big Horn (T-AO-198) arrives in Souda Bay for a scheduled port visit. (U.S. Navy photo by Heather Judkins)

US Navy Oiler Runs Aground, Forcing Carrier Strike Group to Scramble for Fuel

John Konrad

Total Views: 47830

September 24, 2024

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by John Konrad – gCaptain has received multiple reports that the US Navy oiler <u>USNS Big Horn</u> ran aground yesterday and partially flooded off the coast of Oman, leaving the <u>Abraham Lincoln Carrier Strike</u> <u>Group</u> without its primary fuel source.

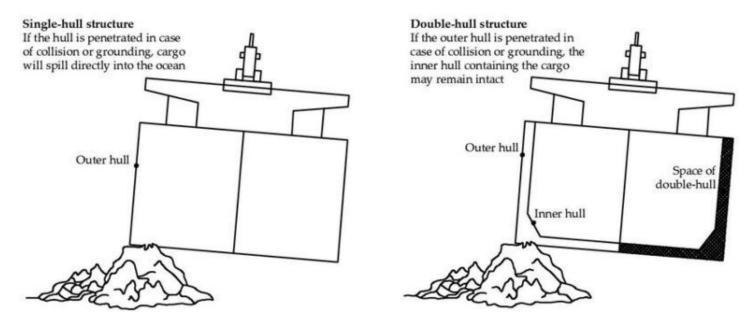
First reported on the gCaptain forum and by maritime historian Sal Mercogliano, a leaked video and photos show damage to the ship's rudder post and water flooding into a mechanical space. US Navy vessels don't typically transmit AIS signals, so we don't know the exact location of the ship but a Navy source confirms she is anchored near Oman awaiting a full damage assessment.

Fortunately, no injuries or environmental damage have been reported for the ship. This is significant because the 33-year-old vessel is one of the <u>single-hull</u> versions of the Kaiser-class oilers.

"USNS Big Horn sustained damage while operating at sea in the U.S. 5th Fleet area of operations overnight on Sept. 23. All crew members are currently safe and U.S. 5th Fleet is assessing the situation," according to a statement from a Navy official provided to <u>Sam Lagrone</u> at <u>USNI News</u>.

Kaiser-class oilers, named after Henry J. Kaiser, were introduced in the 1980s and have long been the backbone of the Navy's underway replenishment (UNREP) capabilities. These vessels refuel carrier strike groups and other naval assets at sea—a crucial task ensuring the Navy's global reach and operational readiness. However, as single-hull tankers, they've been considered environmentally vulnerable since, following the Exxon Valdez oil spill, the 1990 Oil Pollution Act (OPA 90) mandated double-hull designs for commercial oil tankers.

The John Lewis-class, a modern replacement for the aging Kaiser-class, features double-hull construction, improved safety, and enhanced fuel capacity. Named after the late civil rights leader, these ships are designed to meet the Navy's future logistical needs, reflecting a broader push to modernize the fleet and enhance operational resilience.



Compounding the problem is the fact that the Big Horn is the only oiler the Navy has in the Middle East. One shipowner told gCaptain that the Navy is scrambling to find a commercial oil tanker to take its place and deliver jet fuel to the USS Abraham Lincoln.

If the Navy resorts to using a commercial oil tanker as a temporary replacement, it would need to install a Consolidated Cargo Handling and Fueling (CONSOL) system for underway replenishment operations. This system includes specialized refueling rigs, tensioned fueling hoses, and high-capacity fuel pumps—all essential for safely transferring fuel to warships at sea. The tanker would also require robust communication and control systems to ensure precise coordination during refueling maneuvers.

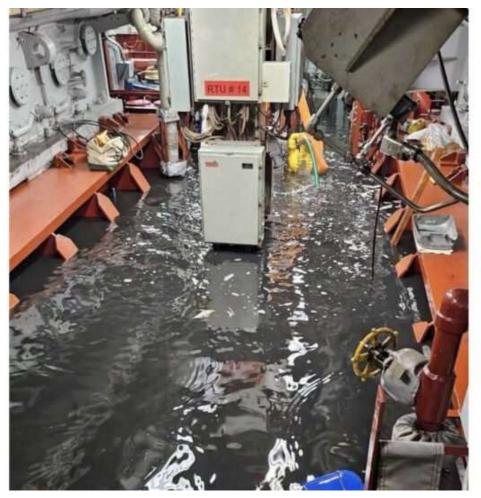


Image of a flooded mechanical space aboard the USNS Big Horn after grounding incident.

This retrofitting process is no small feat. It requires significant modifications to the commercial vessel, enabling it to withstand the unique stresses and operational demands of pumping fuel while sailing at full speed. Moreover, a U.S. Merchant Marine crew trained in CONSOL UNREP procedures—a complex and high-risk operation—would need to be flown to the Middle East to supervise the operation. This adds another layer of complexity to an already challenging situation.

Commercial tankers are significantly slower than Navy oilers, which could leave the USS Abraham Lincoln more vulnerable to attack during aviation fuel loading operations.



The Nimitz-class aircraft carrier USS Theodore Roosevelt conducts a refueling-at-sea with the Military Sealift Command fleet replenishment oiler USNS Big Horn (T-AO 198), middle, and the French Navy Aquitaine-class frigate FS Bretagne, June 2024. (U.S. Navy photo by Aaron Haro Gonzalez)

The Navy currently faces a severe shortage of oilers and crew to operate them. Earlier this month, the Navy announced it might lay up 17 replenishment and supply ships—including one oiler—due to difficulties recruiting U.S. Merchant Mariners. While the Navy has launched five new John Lewis Class oilers – including the USNS Lucy Stone (T-AO 209) this week – and awarded NASSCO a \$6.7 billion contract for eight more, challenges persist.

Official Navy and Military Sealift Command sources have repeatedly assured gCaptain that the John Lewis program is on schedule. However, two marine inspectors who have examined the new oilers tell gCaptain they're encountering numerous problems, delaying the vessels' overseas deployment. Despite the lead ship, USNS John Lewis, being <u>launched in January 2021</u>, it's currently <u>sitting idle at a repair shipyard in Oregon</u>. As of today, none of the new oilers have been <u>cleared</u> to leave the continental United States.

The Broader Navy Tanker Crisis and Strategic Implications

The grounding of USNS *Big Horn* is a stark reminder of the broader tanker crisis facing the U.S. military, as highlighted by Captain Steve Carmel, a former vice president at Maersk, in <u>an editorial for gCaptain last</u> year. The Department of Defense is projected to need <u>more than one hundred tankers of various sizes in the event of a serious conflict in the Pacific</u>. However, current estimates indicate that the DoD has

assured <u>access to fewer than ten</u>, a dangerously low number that threatens to cripple U.S. military operations. Without sufficient tanker capacity, even the most advanced naval capabilities—including nuclear-powered aircraft carriers, which still rely on aviation fuel—will be rendered ineffective.

This problem became significantly more accute with the <u>closing of the Navy's massive Pacific fuel</u> <u>depot</u> – <u>Red Hill</u> – after poor maintence resulted in fuel leaking into the local water supply, <u>poisoning thousands including children</u>, in Hawaii.

Related Article: <u>Hawaii Naval Bunker Tank Closure And The Jones Act Explained</u>

The shortage of both oilers and tankers demands urgent action. The United States must build a larger U.S.-flagged fleet capable of replenishing aircraft carriers and support joint wartime operations. Expanding the <u>Tanker Security Program</u>, enforcing cargo preference, and prepositioning fuel-laden tankers are potential solutions, but they require immediate implementation. With the looming threat of conflict in the Pacific, securing a robust tanker fleet is not just a logistical necessity—it's a strategic imperative.

This crisis—coupled with the equally troubling <u>US Merchant Marine crewing crisis</u>—poses a significant challenge for the US Navy. Encouragingly, Secretary of the Navy Carlos Del Toro has called for a bold new <u>Maritime Statecraft</u>. Moreover, with the <u>leadership</u> Representative<u>Michael Waltz</u> and <u>Senator Mark Kelly</u>, Congress is working on a bill to address our maritime dilemmas—a bill this incident makes more compelling than ever. However, major obstacles remain. These solutions take time, and other federal agencies—including the US Coast Guard but most notably the <u>US Maritime Administration</u> under Secretary Pete Buttigieg—are <u>under-resourced</u> and <u>lack motivation</u> to do the heavy lifting required to solve these problems.

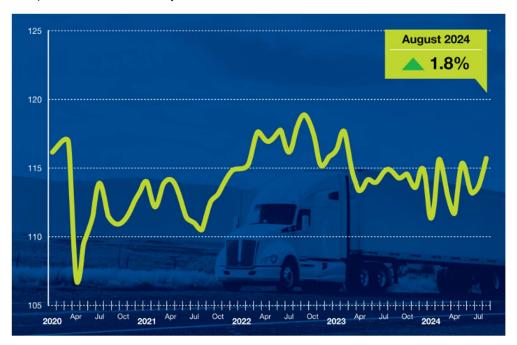
As we await the implementation of these crucial solutions, our dedicated Merchant Mariners, operating a dwindling fleet of aging logistics ships, will undoubtedly face increased operational demands and heightened pressure to work harder. More stress on the mariners and military logistics system will inevitably lead to more incidents similar to yesterdays USNS Big Horn grounding. And that's before we even consider the Navy's severe shortage of working ships – salvage ships, ocean tugboats, fireboats, tenders, and floating drydocks — all crucial for quickly repairing and returning damaged ships to service.

Also Read: Op-Ed: U.S. Merchant Mariner Shortage Demands Action Now

ATA Truck Tonnage Index Increased 1.8% in August

Index Rose 0.7% from August 2023

Washington — American Trucking Associations' advanced seasonally adjusted For-Hire Truck Tonnage Index grew 1.8% in August after rising 0.4% in July. In August, the index equaled 115.8 (2015=100) compared with 113.8 in July.



"August tonnage levels rose to the highest level since February 2023," said **ATA Chief Economist Bob Costello.** "Not only does the latest robust gain show freight levels are coming off the bottom, but so does the sequential pattern over the last eight months. Starting earlier this year, every time tonnage falls, it is higher than the previous low. For me, this month-to-month pattern is more important than looking at the year-over-year percent changes since we are at an inflection point in the freight market."

July's increase was revised up from our August 20 press release.

Compared with August 2023, the index increased 0.7%, just the second year-over-year gain in the last eighteen months (the other being in May 2024). In July, the index was down 0.9% from a year earlier.

The not seasonally adjusted index, which represents the change in tonnage actually hauled by the fleets before any seasonal adjustment, equaled 119.4 in August, 2.2% above July. ATA's For-Hire Truck Tonnage Index is dominated by contract freight as opposed to traditional spot market freight.

In calculating the index, 100 represents 2015.

Trucking serves as a barometer of the U.S. economy, representing 72.6% of tonnage carried by all modes of domestic freight transportation, including manufactured and retail goods. Trucks hauled 11.46 billion tons of freight in 2022. Motor carriers collected \$940.8 billion, or 80.7% of total revenue earned by all transport modes.

ATA calculates the tonnage index based on surveys from its membership and has been doing so since the 1970s. This is a preliminary figure and subject to change in the final report issued around the 5th day of each month. The report includes month-to-month and year-over-year results, relevant economic comparisons, and key financial indicators.

decisions; Academics and industry experts top list Canadians tilt toward non-partisanship on energy to inform decision-making.

Conducted by Nanos for the University of Ottawa, August 2024 Field: July 29th to August 1st, 2024 National Survey | Summary

Submission 2024-2634





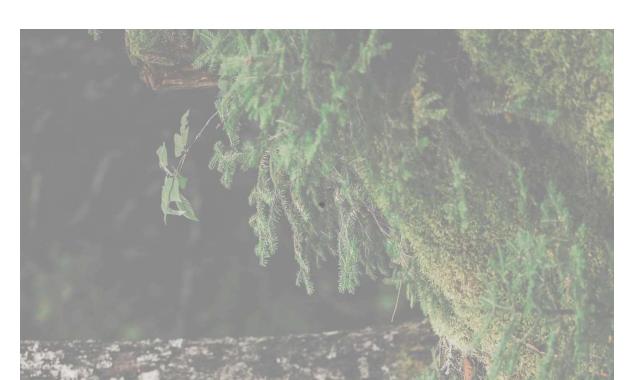
Summary

exports for global energy security and climate change mitigation. The research gauged public perceptions and opinions regarding energy decision-making processes and on developing a shared policy decisions, the role of various sources in informing these performance on strengthening public confidence in Canada's decisions, and the role of oil and gas in Canada's current and the balance between political influence and expert advice in Additionally, the survey asks Canadians to score government future economy. It explored views on expanding oil and gas ong-term vision for Canada's energy future.

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,035 Canadians, 18 years of age or older, between July 29th to August 1st, 2024 as part of an omnibus survey.

The margin of error for a random survey of 1,035 Canadians is ±3.1 percentage points, 19 times out of 20.

The research was commissioned by the University of Ottawa's Positive Energy program and was conducted by Nanos Research.



KEY FINDINGS

CANADIANS MORE LIKELY TO PREFER ENERGY AND ENVIRONMENTAL POLICY DECISIONS BE INFLUENCED BY ADVICE FROM THE NON-PARTISAN PUBLIC SERVICE THAN BY THE POLITICS OF THE GOVERNMENT OF THE DAY Two in five Canadians (40%) say that energy decisions should be influenced by the advice received from the non-partisan public service (score of 0-3 out of 10), while under two in five are for a balanced approach (36%), and over one in ten prefer the politics of the government in power (14%), for a total mean score of 3.9. When asked the reason for their opinion, the top response was 'Government bias/Politics getting in the way/Politicians are not experts' (27%) followed by 'Ask experts in the field/Science-based evidence and facts/Independent sources' (13%).

CANADIANS PREFER ACADEMIC AND INDUSTRY INSIGHTS FOR ADVICE ON ENERGY POLICY DECISIONS

When asked to give a percentage on where the government should seek guidance on energy policy in Canada, the highest percentage was given on average to 'Academia (Universities, Peer-reviewed science, researchers)' (18%) and 'Industry experts/business' (17%). Canadians were also asked for the reasons behind their choices, with the top responses being 'More broad input/all interested parties should have a say/balance' (27%) and 'Decisions should be based on science/research/university/academia' (19%).

CANADA'S PERFORMANCE POORLY RATED IN BUILDING PUBLIC CONFIDENCE IN ENERGY DECISION MAKING AND DEVELOPING A SHARED LONG-TERM VISION FOR CANADA'S ENERGY FUTURE

A majority of Canadians say that Canada is performing poorly in building public confidence in energy decision-making (28% very poor and 33% poor) and in developing a shared long-term vision for Canada's energy future (28% very poor and 31% poor), which is consistent with previous waves.

OIL AND GAS SEEN AS HIGHLY IMPORTANT TO CANADA'S CURRENT ECONOMY

About four in five Canadians rate oil and gas as important to Canada's <u>current</u> economy (score of 7-10 out of 10) (79%) which is an increase from the previous wave in January 2024 (74%). When asked the reason for their opinion, the top reason is 'Contributes/tied to Canadian/provincial economy, exports, jobs' (28%) followed by 'Oil and gas are important Canadian natural resources/we have a lot of it/produce it', with Canadians being three times more likely to mention this compared to the previous wave (13%; 4% in January 2024).

OIL AND GAS REMAIN IMPORTANT TO CANADA'S FUTURE ECONOMY

About three in five Canadians view oil and gas as important to Canada's future economy (score of 7 to 10 out of 10) (59%). When asked about the reasons for their rating, the primary response is 'Moving towards clean energy/reducing reliance on fossil fuels', this showed a substantial rise from January 2024 (31%; 24% in January 2024). This is followed by 'Remain a large part of Canada's economy/still contributing to Canada's economy', which has also increased from the previous wave (20%; 13% in January 2024).

MAJORITY OF CANADIANS AGREE OR SOMEWHAT AGREE ON EXPANDING OIL AND GAS EXPORTS FOR SECURITY AND CLIMATE

Similar to previous waves, a majority of Canadians agree or somewhat agree that Canada should expand oil and gas exports to help the world have more secure and reliable energy supplies (35% agree and 26% somewhat agree), and that these exports from Canada's oil and gas sector can contribute to combatting global climate change if our exports displace energy sources in other countries that are more damaging to the climate (33% agree and 30% somewhat agree).



Sources for the government to seek advice on energy policy - by demographics

informing their decisions? Please assign a percentage for each source based on the influence you believe each source Q – When governments seek advice on energy policy in Canada, which source(s) do you believe should play a role in should have: [RANDOMIZE]

		2024-08 (n=1000)	Atlantic (n=67)	Quebec (n=231)	Ontario (n=388)	Prairies (n=175)	BC (n=139)	Men (n=490)	Women (n=510)	18-34 (n=267)	35-54 (n=322)	55 plus (n=411)
	Academia (Universities, Peer-reviewed science, researchers)	17.8%	19.5%	22.5%	14.5%	15.5%	21.3%	18.3%	17.3%	20.7%	17.0%	16.5%
	Industry experts/business	17.2%	18.2%	12.0%	17.1%	24.3%	16.7%	17.9%	16.6%	13.6%	20.0%	17.4%
	Environmental organizations	11.4%	11.8%	13.1%	11.6%	9.4%	10.3%	10.1%	12.6%	11.4%	11.0%	11.6%
ueə _l	Civil servants/government agencies	9.7%	11.4%	10.7%	9.5%	7.8%	10.4%	10.5%	9.1%	8.7%	%8.6	10.4%
M	Citizens/community-driven initiatives	%9:6	12.1%	9.3%	8.8%	10.8%	9.7%	8.6	9.4%	%2.6	%6.6	9.3%
	Elected officials	8.5%	7.4%	8.8%	%0.6	7.8%	7.6%	9.4%	7.5%	7.0%	8.5%	9.3%
	Indigenous communities/organizations	8.4%	7.1%	7.0%	9.5%	7.8%	8.9%	7.3%	9.4%	7.8%	8.4%	8.7%
	Think-tanks	%6.9	6.1%	7.0%	6.5%	8.0%	%8.9	7.3%	6.5%	2.9%	7.0%	7.4%
	Unsure	10.6%	6.5%	%9:6	13.6%	8.6%	8.3%	9.5%	11.6%	15.1%	8.4%	9.3%

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, July 29^{th} to August 1^{st} , 2024, n=1035, accurate 3.1 percentage points plus or minus, 19 times out of 20.



^{*}Weighted to the true population proportion. *Charts may not add up to 100 due to rounding.

Sources for the government to seek advice on energy policy – by political leaning

informing their decisions? Please assign a percentage for each source based on the influence you believe each source Q – When governments seek advice on energy policy in Canada, which source(s) do you believe should play a role in should have: [RANDOMIZE]

		2024-08 (n=1000)	Liberal Party of Canada (n=307)	Conservative Party of Canada (n=284)	New Democratic Party of Canada (n=110)	Bloc Quebecois (n=71)	I don't have a party I regularly vote for (n=194)	Left (n=211)	Right (n=229)
Academia (Universities, Peer-reviewed science, researchers)	es, Peer-reviewed	17.8%	18.8%	12.7%	21.2%	25.7%	18.9%	22.3%	11.9%
Industry experts/business	iness	17.2%	12.8%	27.1%	8.1%	9.3%	18.1%	8.7%	76.9%
Environmental organizations	izations	11.4%	13.1%	7.2%	14.9%	13.7%	11.6%	15.9%	7.0%
Civil servants/government agencies	ment agencies	9.7%	11.2%	8.5%	10.3%	11.8%	8.1%	10.4%	8.2%
Citizens/community-driven initiatives	driven initiatives	%9:6	8.0%	10.7%	%6.6	8.7%	10.3%	8.1%	10.0%
Elected officials		8.5%	8.9%	8.6%	7.8%	10.3%	7.4%	7.5%	9.1%
Indigenous communities/organizations	ties/organizations	8.4%	9.3%	6.4%	12.9%	7.8%	7.0%	11.7%	6.2%
Think-tanks		%6.9	%6:9	7.7%	4.3%	7.3%	7.3%	4.3%	8.4%
Unsure		10.6%	11.0%	11.0%	10.8%	5.4%	11.3%	11.1%	12.3%

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, July 29^{th} to August 1^{st} , 2024, n=1035, accurate 3.1 percentage points plus or minus, 19 times out of 20.

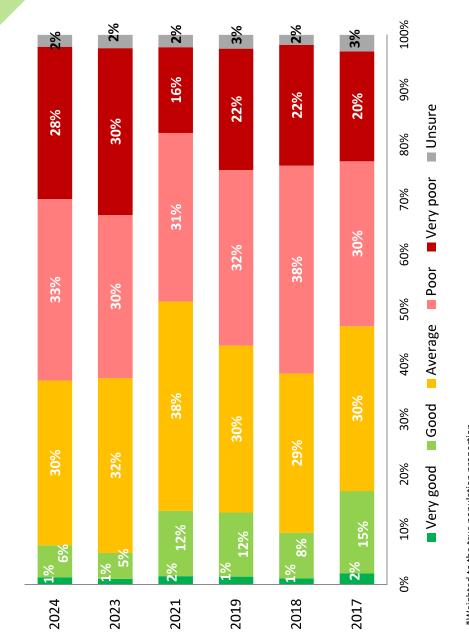


^{*}Weighted to the true population proportion. *Charts may not add up to 100 due to rounding.

Job done by Canada at building public confidence in energy decision-making

A majority of Canadians say
Canada is doing a poor or very
poor job at building public
confidence in energy decisionmaking. Three in ten say Canada
is doing an average job, and
under one in ten say it is doing a
very good or good job.

Building public confidence in energy decision-making



^{*}Weighted to the true population proportion.

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, July $29^{\rm th}$ to August $1^{\rm st}$, 2024, n=1035, accurate 3.1 percentage points plus or minus, 19 times out of 20.



Q - Does Canada do a very good, good, average, poor or very poor job at the following?

^{*}Charts may not add up to 100 due to rounding.

Job done by Canada at developing a long-term vision for Canada's energy future

Canadians are over six times more likely to say that Canada is doing a poor or very poor job at developing a shared long-term vision for Canada's energy future than a good or very good job.

Q - Does Canada do a very good, good, average, poor or very poor job at the following?

Developing a shared long-term vision for Canada's energy future

3%	3%	%	5 %	3%	2%	100%
28%	29%	16%	20%	18%	17%	80% 90%
		28%	78%	%	79%	60% 70% 80% 90°
31%	30%		58	33%	2	50% 60%
	(,,	%	9		32%	40% 50%
29%	78%	37%	33%	31%	32	30% Good
		2%15%	.5%	3%	17%	10% 20% Very good
2024 18%	2023 1%	2021 2%1	2019 2% 15%	2018 3%13%	2017 <mark>3% 17</mark> %	% 0

^{*}Weighted to the true population proportion.

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, July $29^{\rm th}$ to August $1^{\rm st}$, 2024, n=1035, accurate 3.1 percentage points plus or minus, 19 times out of 20.

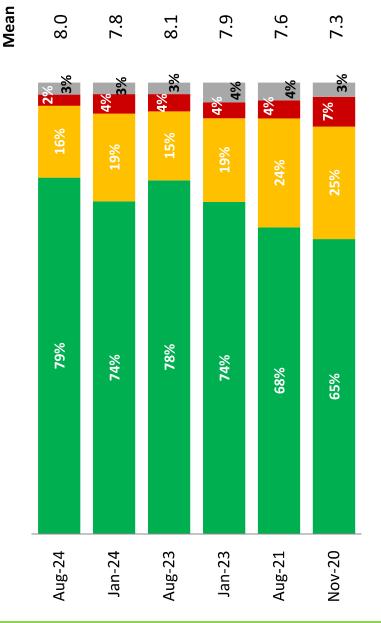


^{*}Charts may not add up to 100 due to rounding.

Importance of oil and gas to Canada's current economy

Canada's current economy. This As observed in previous waves, number has risen since 2020. most Canadians (79%) say oil and gas is important to

important and 10 is extremely important, how important Q – On a scale of 0 to 10, where 0 means not at all is oil and gas to Canada's current economy?



*Weighted to the true population proportion.

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, July 29th to August 1st, 2024, n=1035, accurate POSITIVE **ENERGY** (7) NANOS 3.1 percentage points plus or minus, 19 times out of 20.



Unsure

■ Not important (0-3)

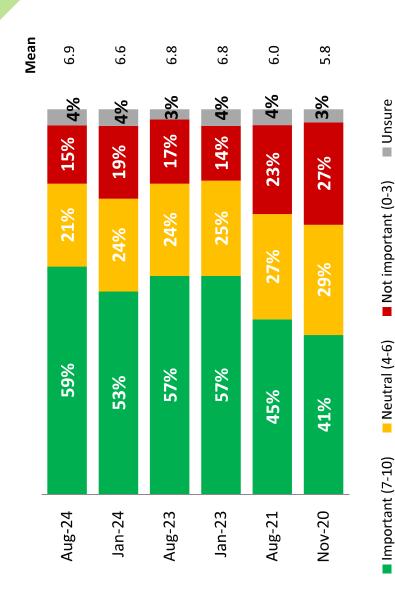
Neutral (4-6)

Important (7-10)

^{*}Charts may not add up to 100 due to rounding.

important to Canada's future continue to say oil and gas is economy. This number has A majority of Canadians risen since 2020.

important and 10 is extremely important, how important Q – On a scale of 0 to 10, where 0 means not at all is oil and gas to Canada's future economy?



Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, July 29th to August 1st, 2024, n=1035, accurate 3.1 percentage points plus or minus, 19 times out of 20.



^{*}Weighted to the true population proportion.

^{*}Charts may not add up to 100 due to rounding.

%9	1%	%2	%	%	%6	100%
19%		16%	14% 9%			%06
19	23%	16	14	17%	19%	%08
15%	.0	19%	16%	14%	15%	20%
	17%				H	%09
79%		24%	27%	76%	%	20%
2	21%	77	~	2	25%	40%
						30%
35%	31%	34%	35%	35%	33%	70%
m	31	m	m	m	m	10%
						<u> </u> %0
Aug-24	Jan-24	Aug-23	Jan-23	Nov-22	Мау-22	

^{*}Weighted to the true population proportion.

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, July 29th to August 1st, 2024, n=1035, accurate 3.1 percentage points plus or minus, 19 times out of 20.

POSITIVE ENERGY (7) NANOS

Unsure

Disagree

Somewhat disagree

Somewhat agree

^{*}Charts may not add up to 100 due to rounding.

https://tipro.org/news/texas-upstream-employment-rises-and-energy-infrastructure-projects-advance/

Texas Upstream Employment Rises and Energy Infrastructure Projects Advance

September 20, 2024

Austin, Texas – Citing the latest Current Employment Statistics (CES) report from the U.S. Bureau of Labor Statistics (BLS), the Texas Independent Producers and Royalty Owners Association (TIPRO) today highlighted new employment figures showing the third consecutive month of growth in upstream employment in Texas in the month of August 2024. According to TIPRO's analysis, direct Texas upstream employment for August totaled 194,400, an increase of 1,000 industry jobs from revised July employment numbers. The Texas upstream employment data represents a decrease of 1,700 jobs in oil and gas extraction, and an increase of 2,700 positions in the services sector, last month.

TIPRO's new workforce data yet again indicated strong job postings for the Texas oil and natural gas industry. According to the association, there were 11,823 active unique jobs postings for the Texas oil and natural gas industry last month, an increase of 299 posted employment opportunities compared to July and 4,602 new job postings added during the month by companies. In comparison, the state of California had 4,416 unique job postings in August, followed by Florida (2,147), New York (1,684), Pennsylvania (1,662) and Louisiana (1,564). TIPRO reported a total of 60,396, unique job postings nationwide last month within the oil and natural gas sector, an increase of 630 compared to July.

Among the 19 specific industry sectors TIPRO uses to define the Texas oil and natural gas industry, Gasoline Stations with Convenience Stores led in the ranking for unique job listings in August with 3,208 postings, followed by Support Activities for Oil and Gas Operations (2,495) and Crude Petroleum Extraction (1,021). The leading three cities by total unique oil and natural gas job postings were Houston (2,960), Midland (859) and Odessa (441), said TIPRO.

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Why is the right side of a hurricane more dangerous?

Hurricanes are dangerous to hundreds of miles in every direction. Storm 101 explains why winds and storm surge are more intense on the right side of the storm.

By Hillary Andrews Source FOX Weather

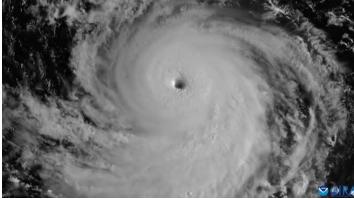
The right side of the hurricane is the most dangerous

FOX Weather explains why the right side or the dirty side of a hurricane is the most dangerous -- stronger winds, deeper storm surge and higher wave heights.

Have you ever wondered why meteorologists say that the eastern side of <u>hurricanes</u> are the most dangerous? Or call it the "dirty side" of the storm?

Usually, the right-front quadrant of a storm in the Northern Hemisphere carries higher <u>winds</u>, waves and storm surge, according to the <u>University Corporation for Atmospheric Research</u>.

If you look at a satellite image of <u>Hurricane Franklin</u> in the Atlantic Ocean. The right front quadrant, from essentially 1 o'clock to 3 o'clock on our imaginary clock, will have the strongest winds and worst storm surge. The U.S. won't have to worry about the diary side of Hurricane Franklin because it continues to move northeast in the <u>Atlantic Ocean</u>.



Hurricane Franklin as seen by NOAA's GOES-16 satellite. (Image: NOAA/CIRA)

Another image below from Hurricane Nicole in 2022 shows the right side of the storm.



(GOES-16 image courtesy NOAA/CIRA/RAAM-B)

Every low pressure or <u>cyclone</u> circulates internally in a counter-clockwise direction in the Northern Hemisphere, including hurricanes, <u>nor'easters</u> and most <u>tornadoes</u>.

How the right-front quadrant generates faster wind speed

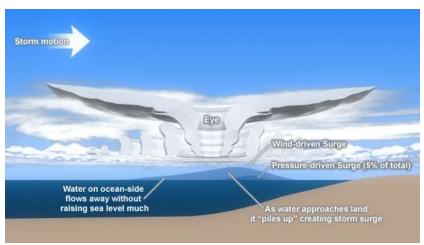
Steering currents, driven by atmospheric airflow in the upper levels, add to the strength of the maximum sustained winds in that quadrant. For example, if a hurricane's steering currents were moving at 30 mph and the sustained winds of the hurricane were 80 to 100 mph, the combination generates a wind speed of 130 to 150 mph at 3 o'clock on the clock face.

On the left side of the hurricane (9 o'clock on our imaginary clock face), the maximum sustained winds flow against the steering currents. So, in the example above, the steering current of 30 mph would reduce the 100 mph hurricane wind speed to 70 mph, according to <u>UCAR</u>. The National Hurricane Center takes this into account when issuing official wind estimates.

Storm surge is greatest on the eastern side of a hurricane too

The faster winds on that energized "right side" of the hurricane create higher waves, slightly higher wind gusts and the storm surge. The National Hurricane Center wrote that storm surge triggered by the low pressure of the storm (the atmosphere pressing less on the surface of the water) is minimal – about 5% – compared to the amount of water forced onshore by the hurricane-force wind.

WHY FLORIDA'S GULF COAST IS SUSCEPTIBLE TO A HURRICANE'S STORM SURGE



The storm motion is left to right with the circulation of the storm being counter-clockwise. Look at the water piling up at the right front quadrant of the cross-section of the hurricane.

(The Comet Project and NOAA)

When a storm surge triggered by being in the right quadrant of the storm aligns with a waterway like a bay or river, the effects can be even more dangerous.

But being on the other side of the storm can have opposite effects. In 2017, <u>Hurricane Irma</u> made landfall at Marco Island, Florida, putting Tampa Bay on the left side of the storm.

The 115 mph winds out of the northeast were offshore and actually forced water out of <u>Tampa Bay</u>. The video shows exposed sea walls and birds walking on what, just hours before, was underwater by feet:

Water receded from Tampa Bay due to Irma

Tampa Bay was on the left side of Hurricane Irma in 2017 when it made landfall near Marco Island. The offshore winds blew the waters of Tampa Bay out to the Gulf of Mexico while areas to the right of Erma were flooded by storm surge.

Tornadoes

The majority of tornadoes embedded in <u>thunderstorms</u> in the hurricane's rain bands and eyewall form in the front right quadrant as well, according to the <u>National Weather Service</u>. Twisters spawned by a tropical system are generally weak and short-lived but can still do damage.

THIS IS THE LIFECYCLE OF A TORNADO

The <u>NWS</u> looked at tornadoes formed by tropical systems in central <u>South Carolina</u> and eastern <u>Georgia</u> from 1950 to 2013. Their research showed that most of the tornadoes were from tropical storms and hurricanes that made landfall in the Gulf of Mexico and traveled north-northeast.

Dallas Fed Survey | Third Quarter | September 25, 2024

Oil and gas activity edges lower as outlooks dim, uncertainty rises

What's New This Quarter

<u>Special questions</u> this quarter focus on the impact of low Waha Hub natural gas prices on activity in the Permian Basin, whether E&P firms plan to ramp up completions once the natural gas pipeline bottleneck clears in the Permian and expectations regarding future pipeline bottlenecks for crude oil in the Permian. Also explored are firms' plans for electrification of oil fields along with the lead time for electrical components, such as transformers, and the top challenges to electrification.

Activity in the oil and gas sector declined slightly in third quarter 2024, according to oil and gas executives responding to the Dallas Fed Energy Survey. The business activity index, the survey's broadest measure of the conditions energy firms face in the Eleventh District, decreased from 12.5 in the second quarter to -5.9 in the third quarter. The business activity index was 0 for exploration and production (E&P) firms compared with -18.1 for services firms, suggesting activity was unchanged for E&P firms but declined for service firms.

Oil and gas production was mixed in the third quarter, according to executives at E&P firms. The oil production index increased from 1.1 in the second quarter to 7.9 in the third quarter, suggesting oil production slightly increased in the quarter. Meanwhile, the natural gas production index declined from 2.3 to -13.3, suggesting natural gas production decreased in the quarter.

Costs rose but at a slower pace when compared with the prior quarter. Among oilfield services firms, the input cost index fell from 42.2 to 23.3. Among E&P firms, the finding and development costs index declined from 15.7 to 9.9. Meanwhile, the lease operating expenses index edged lower from 23.6 to 21.3. Two of the three cost indexes trailed the series average, suggesting costs are growing at a slower-than-average pace.

The equipment utilization index for oilfield services firms turned negative, declining from 10.9 in the second quarter to -20.9 in the third. The operating margin index fell sharply from -13.0 to -32.6, suggesting margins declined at a faster pace. The prices received for services index was relatively unchanged at -2.3.

The aggregate employment index was unchanged at 2.9 in the third quarter. While this is the 15th consecutive positive reading for the index, the low-single-digit result suggests little-to-no net hiring. The aggregate employee hours index declined from 8.1 to -2.3. Additionally, the aggregate wages and benefits index decreased from 24.0 to 18.6.

The company outlook index turned negative in the third quarter, plunging 22 points to -12.1, suggesting modest pessimism among firms. The overall outlook uncertainty index jumped 25 points to 48.6, suggesting mounting uncertainty.

On average, respondents expect a West Texas Intermediate (WTI) oil price of \$73 per barrel at year-end 2024; responses ranged from \$55 to \$100 per barrel. When asked about longer-term expectations, respondents on average expect a WTI oil price of \$81 per barrel two years from now and \$87 per barrel five years from now. Survey participants expect a Henry Hub natural gas price of \$2.62 per million British thermal units (MMBtu) at year-end. When asked about longer-term expectations, respondents on average anticipate a Henry Hub gas price of \$3.24 per MMBtu two years from now and \$3.89 per MMBtu five years from now. For reference, WTI spot prices averaged \$70.82 per barrel during the survey collection period, and Henry Hub spot prices averaged \$2.23 per MMBtu.

Next release: January 2, 2025

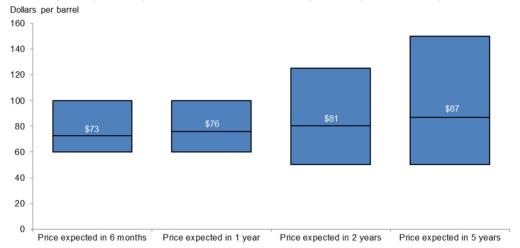
Data were collected Sept. 11–19, and 136 energy firms responded. Of the respondents, 91 were exploration and production firms and 45 were oilfield services firms.

The Dallas Fed conducts the Dallas Fed Energy Survey quarterly to obtain a timely assessment of energy activity among oil and gas firms located or headquartered in the Eleventh District. Firms are asked whether business activity, employment, capital expenditures and other indicators increased, decreased or remained unchanged compared with the prior quarter and with the same quarter a year ago. Survey responses are used to calculate an index for each indicator. Each index is calculated by subtracting the percentage of respondents reporting a decrease from the percentage reporting an increase. When the share of firms reporting an increase exceeds the share reporting a decrease, the index will be greater than zero, suggesting the indicator has increased over the previous quarter. If the share of firms reporting a decrease exceeds the share reporting an increase, the index will be below zero, suggesting the indicator has decreased over the previous quarter.

Price Forecasts

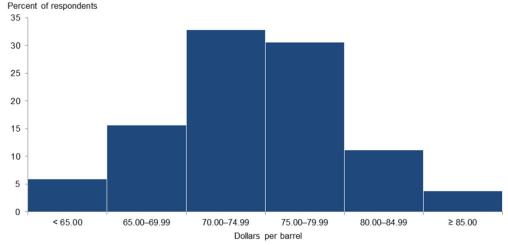
West Texas Intermediate Crude

What do you expect WTI prices to be in six months, one year, two years and five years?



NOTE: Executives from 119 oil and gas firms answered this question during the survey collection period, Sept. 11–19, 2024. For reference, WTI (West Texas Intermediate) spot prices averaged \$70.82 per barrel during the period. The middle line denotes the mean, while the bottom and top of the box denote the minimum and maximum response. SOURCE: Federal Reserve Bank of Dallas; Chicago Mercantile Exchange (reference price).

What do you expect the WTI crude oil price to be at the end of 2024?



NOTE: Executives from 134 oil and gas firms answered this question during the survey collection period, Sept. 11–19, 2024. The average response was \$73 per barrel. For reference, WTI (West Texas Intermediate) spot prices averaged \$70.82 per barrel during the period.

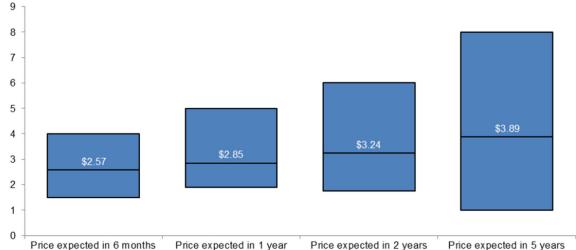
SOURCE: Federal Reserve Bank of Dallas; Energy Information Administration (reference price).

West Texas Intermediate crude oil price, year-end 2024				
Indicator	Survey Average	Low Forecast	High Forecast	Price During Survey
Current quarter	\$72.66	\$55.00	\$100.00	\$70.82
Prior quarter	\$78.66	\$62.50	\$100.00	\$79.94

NOTE: Price during survey is an average of daily spot prices during the survey collection period. SOURCES: Federal Reserve Bank of Dallas; Energy Information Administration.

What do you expect Henry Hub natural gas prices to be in six months, one year, two years and five years?

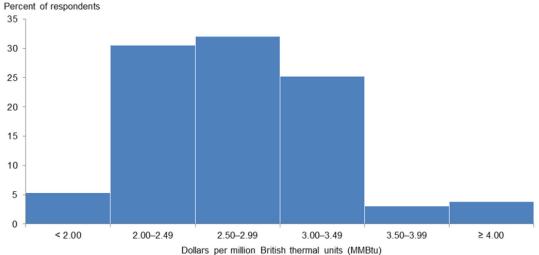




NOTE: Executives from 112 oil and gas firms answered this question during the survey collection period, Sept. 11–19, 2024. For reference, Henry Hub spot prices averaged \$2.23 per MMBtu during the period. The middle line denotes the mean, while the bottom and top of the box denote the minimum and maximum response.

SOURCE: Federal Reserve Bank of Dallas; Energy Information Administration (reference price).

What do you expect the Henry Hub natural gas price to be at the end of 2024?



NOTE: Executives from 131 oil and gas firms answered this question during the survey collection period, Sept. 11–19, 2024. The average response was \$2.62 per MMBtu. For reference, Henry Hub spot prices averaged \$2.23 per MMBtu during the period.

SOURCE: Federal Reserve Bank of Dallas; Energy Information Administration (reference price).

Henry Hub natural gas price, year-end 2024				
Indicator	Survey Average	Low Forecast	High Forecast	Price During Survey
Current quarter	\$2.62	\$1.50	\$4.25	\$2.23
Prior quarter	\$3.01	\$1.85	\$4.80	\$2.61

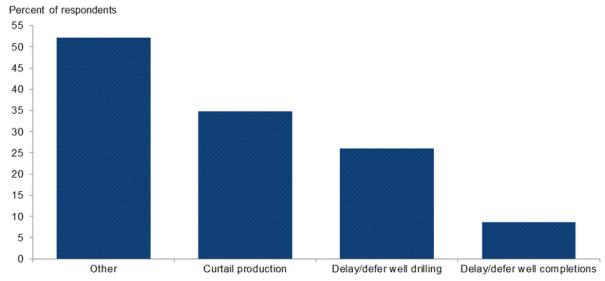
NOTE: Price during survey is an average of daily spot prices during the survey collection period. SOURCES: Federal Reserve Bank of Dallas; Energy Information Administration.

Special Questions

Data were collected Sept. 11-19; 133 oil and gas firms responded to the special questions survey.

In the Permian Basin, what impact have low Waha natural gas prices had on your operations in the third quarter of 2024? Please select all that apply.

The Waha Hub is a gathering location for natural gas in the Permian Basin and connects to major pipelines. Of the executives surveyed, 52 percent selected "other"; the most-cited reason was little to no impact on operations, followed by reduced natural gas revenue. Thirty-five percent said low Waha Hub natural gas prices caused their firm to curtail production. Twenty-six percent said low natural gas prices caused them to delay/defer well drilling, and 9 percent noted they delayed/deferred well completions. Respondents were able to select more than one choice for this special question. Among those who selected "other," only one chose any of the remaining options.

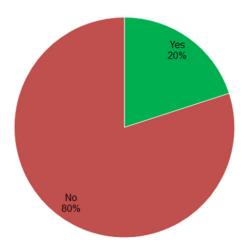


NOTE: Executives from 23 exploration and production firms answered this question during the survey collection period, Sept. 11–19, 2024. This question was posed only to executives who said their firm drilled or completed a horizontal well in the Permian Basin in the past two years.

SOURCE: Federal Reserve Bank of Dallas.

Is your firm planning to ramp up well completion activities in the Permian Basin once the natural gas pipeline bottleneck is cleared?

Eighty percent of executives said they are not planning to ramp up well completion activities in the Permian Basin once the natural gas pipeline bottleneck clears. The remaining 20 percent said their firm plans to do so.

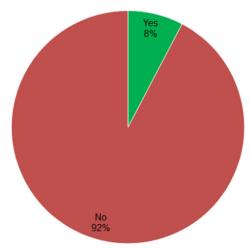


NOTE: Executives from 25 exploration and production firms answered this question during the survey collection period, Sept. 11–19, 2024. This question was posed only to executives who said their firm drilled or completed a horizontal well in the Permian Basin in the past two years.

SOURCE: Federal Reserve Bank of Dallas.

Do you expect your firm's crude oil production to be constrained at any point in time between now and the end of 2026 due to crude oil pipeline capacity constraints in the Permian?

Ninety-two percent of executives said they do not expect their firm's crude oil production to be limited between now and the end of 2026 due to crude oil pipeline capacity constraints in the Permian. The remaining 8 percent said that they expect constrained production.



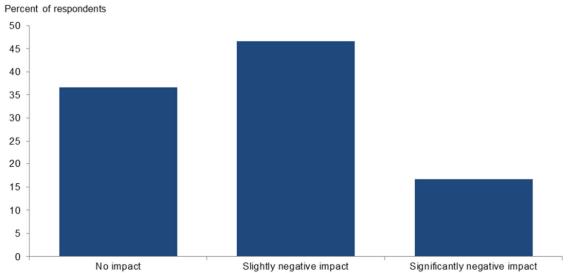
NOTE: Executives from 26 exploration and production firms answered this question during the survey collection period, Sept. 11–19, 2024. This question was posed only to executives who said their firm drilled or completed a horizontal well in the Permian Basin in the past two years.

SOURCE: Federal Reserve Bank of Dallas.

Oil and gas support services firms

What impact did low Waha Hub natural gas prices have on demand for your firm's services in the Permian in the third quarter of 2024?

The majority of executives surveyed, 47 percent, said low Waha Hub natural gas prices slightly negatively affected demand for their firm's services in the Permian Basin in the third quarter. Thirty-seven percent noted no impact, while 17 percent said the low Waha Hub prices had a significantly negative impact on demand for their firm's services in the basin in the most recent quarter.



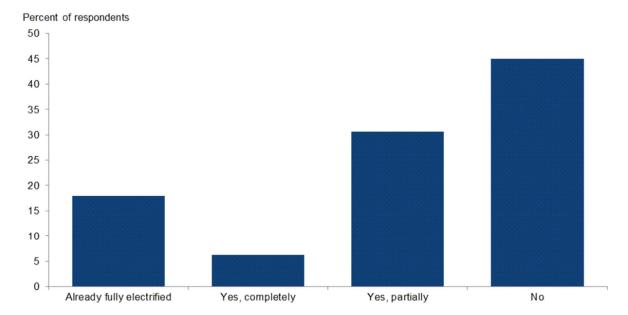
NOTE: Executives from 30 oil and gas support firms answered this question during the survey collection period, Sept. 11–19, 2024. This question was posed only to executives who said their firm provided services in the Permian in the past two years. SOURCE: Federal Reserve Bank of Dallas.

All firms

Is your firm aiming to electrify its oilfield operations?

Eighteen percent of executives said their firm's oilfield operations are already fully electrified. Six percent of executives said they aim to completely electrify oilfield operations for their firm, and an additional 31 percent said they expect to partially electrify operations. The remaining 45 percent said they do not plan to do so.

Responses differed depending on the firm's size and type. Twenty-eight percent of the executives surveyed from small exploration and production (E&P) firms (crude oil production of fewer than 10,000 barrels per day (b/d) as of fourth quarter 2023) said their oilfield operations are already fully electrified, compared with 9 percent of executives from oil and gas support services firms and 6 percent of large E&P firms (production of 10,000 b/d or more). Service firms were also slightly more likely than small and large E&P firms to indicate they are not aiming to electrify their oilfield operations. A breakdown of the data is in the table below.



NOTE: Executives from 111 oil and gas firms answered this question during the survey collection period, Sept. 11–19, 2024. SOURCE: Federal Reserve Bank of Dallas.

Response	Percent of respondents (among each group)						
	All firms	Large E&P	Small E&P	Services			
Already fully electrified	18	6	28	9			
Yes, completely	6	6	9	3			
Yes, partially	31	44	24	34			
No	45	44	40	54			

NOTE: Executives from 76 exploration and production firms and 35 oil and gas support services firms answered this question during the survey collection period, Sept. 11–19, 2024. Small E&P firms produced fewer than 10,000 barrels per day (b/d) in the fourth quarter of 2023, while large E&P firms produced 10,000 b/d or more. A total of 58 small E&P firms and 18 large E&P firms responded. Percentages may not sum to 100 due to rounding. SOURCE: Federal Reserve Bank of Dallas.

What is the current lead time for electrical components, such as transformers?

A majority of executives—54 percent—said the current lead time for electrical components, such as transformers, is not more than one year. Twenty-one percent of executives said the lead time is more than one year but not more than two years. An additional 10 percent of executives said more than two years but not more than three years. No executives said three years or more. Fifteen percent of executives noted there is no lead time for electrical components such as transformers.

Response	Percent of respondents
No lead time	15
Not more than one year	54
More than one year but not more than two years	21
More than two years but not more than three years	10
More than three years but not more than four years	0
More than four years but not more than five years	0
More than five years	0

NOTE: Executives from 39 oil and gas firms answered this question during the survey collection period, Sept. 11–19, 2024. This question was posed only to executives who said their firm is aiming to electrify its oilfield operations or who have already electrified their operations.

SOURCE: Federal Reserve Bank of Dallas.

What is the top challenge to electrifying oilfield operations?

This question was asked to all respondents. Firms aiming to electrify oilfield operations, or that have already done so, were asked whether their operations were primarily focused on the Permian Basin or outside the Permian Basin. Among firms primarily focused on the Permian Basin, the top selected challenge was "uncertainty about future access to the grid" (29 percent), followed by "other" (25 percent). The most-cited reason for "other" was challenges with grid infrastructure. Among firms primarily focused outside the Permian, the top selected challenge was "too expensive" (30 percent), followed by "lead times for equipment" (26 percent).

Among respondents not looking to electrify, the most-cited response was "too expensive" (48 percent), followed by both "uncertainty about future grid stability" and "other," which were each selected by 17 percent of respondents.

Response Percent of respondents (among each group)					
	Firms aiming to elec	Firms not aiming to electrify			
	Firms with operations primarily focused on the Permian	Firms with operations primarily focused outside the Permian			
Lead times for equipment	8	26	7		
Uncertainty about future access to the grid	29	9	10		
Uncertainty about future grid stability	17	13	17		
Too expensive	13	30	48		
Regulatory and permitting issues	8	4	0		
Other	25	17	17		

NOTE: Executives from 76 oil and gas firms answered this question during the survey collection period, Sept. 11–19, 2024. Among the responses from firms aiming to electrify their oilfield operations or have already electrified, responses came from 24 firms with operations primarily focused on the Permian and 23 firms with operations primarily focused outside the Permian. Responses came from 29 firms not aiming to electrify.

SOURCE: Federal Reserve Bank of Dallas.

Special Questions Comments

Exploration and Production (E&P) Firms

- We stand by the hypothesis that the world is swiftly running out of \$60 barrels on the way to \$100+ barrels within the next five years. OPEC is being punished short term for ceding market share. To us, it appears to be a savvy "oil storage" policy. U.S. shale will decline in a similar fashion to how Hemingway went bankrupt: "Gradually, then all of a sudden." Why do you think very sophisticated firms, worth tens of billions of dollars, are selling out to the super majors for equity despite a market-leading Permian footprint?
- The oil community prefers to await the allocation of capital until after the election. Deflationary pressures in China continue to curtail oil demand. India is buying cheap Russian oil, which is also helping cap world prices. Future OPEC+ production allotments are uncertain. The lack of a war-price premium in product prices is a concern. Technical analysis of the recent oil-price movements suggests that WTI could drop to around \$55 per barrel depending on whether the U.S. is entering a recession.

Oil and Gas Support Services Firms

 Most of our rigs are capable of running off grid power, but the logistical (regulatory and permitting) hurdles that our customers have to go through to bring power to the rig is formidable and expensive.

- The Electric Reliability Council of Texas and/or Public Utility Commission of Texas are struggling with regulatory framework around distributed generation, behind-the-meter generation and grid interconnections. Statutory requirements for utilities to approve grid interconnections have no teeth; what should take three months now takes 12 to 18 months. Lead times for intermediate voltage (~14KVa) transformers, etc., are now two to three years, and utility-scale high-voltage components are in the five-to-seven-year range. Utility-scale battery backup costs roughly 10 to 15 times the cost of natural gas-powered peaking facilities. Concerns about being able to meet projected demand driven by Al and/or data centers and/or bitcoin mining abound. Serious concerns about large tech players locking up baseload and peaking power supplies and driving up the costs for consumers also exist.
- I am not convinced that electric-powered vehicles and equipment can hold up to the operational demands placed on them in our industry. That and the cost of parts (especially batteries) cause many concerns. The continued rhetoric (mostly political) about doing away with the fossil-fuel industry continues to be a sore spot with our company, our employees and our customers. The contributions made by the oil and gas industry have been the backbone of our economy for a very, very long time. All "they" want to focus on is some of the pitfalls of oil and gas exploration and production without looking at the great strides our industry has made in terms of efficiency, cost reduction and especially safety. Maybe "they" need to learn how much fossil-fuel products impact their everyday life.
- To add the additional costs to electrify equipment, the returns have to be there through higher prices or reduced costs. That is not the case in our segment.
- Our operations are far too mobile and fast paced to install the necessary electrical infrastructure for operations. Additionally, suppliers are currently not making electrical options for many of our types of machinery.

Business Indicators: Quarter/Quarter

Business Indicators: All Firms Current Quarter (versus previous quarter)					
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	-5.9	12.5	23.0	48.1	28.9
Capital Expenditures	-3.8	8.2	26.5	43.2	30.3
Supplier Delivery Time	-3.8	-1.5	5.3	85.6	9.1
Employment	2.9	2.9	18.5	65.9	15.6
Employee Hours	-2.3	8.1	16.8	64.1	19.1
Wages and Benefits	18.6	24.0	23.0	72.6	4.4
Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-12.1	10.0	17.7	52.4	29.8
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Uncertainty	48.6	24.1	57.4	33.8	8.8

Business Indicators: E&P Firms Current Quarter (versus previous quarter)					
indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	0.0	14.5	24.2	51.6	24.2
Oil Production	7.9	1.1	31.5	44.9	23.6
Natural Gas Wellhead Production	-13.3	2.3	21.1	44.4	34.4
Capital Expenditures	0.0	10.2	28.9	42.2	28.9
Expected Level of Capital Expenditures Next Year	12.1	16.9	36.3	39.6	24.2
Supplier Delivery Time	-4.5	1.1	3.4	88.8	7.9
Employment	1.1	2.2	13.2	74.7	12.1
Employee Hours	2.2	5.6	14.4	73.3	12.2
Wages and Benefits	16.5	24.5	20.9	74.7	4.4
Finding and Development Costs	9.9	15.7	23.1	63.7	13.2
Lease Operating Expenses	21.3	23.6	30.3	60.7	9.0
			% Reporting	% Reporting	% Reporting
Indicator	Current Index	Previous Index	Improved	No Change	Worsened
Company Outlook	-14.8	16.8	14.8	55.6	29.6
			% Reporting	% Reporting	% Reporting
Indicator	Current Index	Previous Index	Increase	No Change	Decrease
Uncertainty	52.7	18.9	60.4	31.9	7.7
Business Indicators: O&G Support Services Firms Current Quarter (versus previous quarter)					
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	-18.1	8.5	20.5	40.9	38.6
Utilization of Equipment	-20.9	10.9	18.6	41.9	39.5
Capital Expenditures	-11.9	4.3	21.4	45.2	33.3
Supplier Delivery Time	-2.3	-6.5	9.3	79.1	11.6
<u> </u>	-2.3 4.7	-6.5 4.4	9.3 7.0	79.1 90.7	
Supplier Delivery Time					11.6
Supplier Delivery Time Lag Time in Delivery of Firm's Services	4.7	4.4	7.0	90.7	11.6
Supplier Delivery Time Lag Time in Delivery of Firm's Services Employment	4.7	4.4	7.0 29.5	90.7	11.6 2.3 22.7
Supplier Delivery Time Lag Time in Delivery of Firm's Services Employment Employment Hours	4.7 6.8 –12.1	4.4 4.3 12.8	7.0 29.5 22.0	90.7 47.7 43.9	11.6 2.3 22.7 34.1

Operating Margin	-32.6	-13.0	11.6	44.2	44.2
Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-6.9	-2.1	23.3	46.5	30.2
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Uncertainty	40.0	34.0	51.1	37.8	11.1

Business Indicators: Year/Year

Business Indicators: All Firms Current Quarter (versus same quarter a year ago)							
Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease			
-2.3	16.7	35.2	27.3	37.5			
7.2	10.1	38.9	29.4	31.7			
-4.8	-5.4	12.0	71.2	16.8			
9.5	8.3	26.8	55.9	17.3			
7.2	11.3	23.2	60.8	16.0			
39.0	52.6	44.5	50.0	5.5			
	-2.3 7.2 -4.8 9.5 7.2	-2.3 16.7 7.2 10.1 -4.8 -5.4 9.5 8.3 7.2 11.3	Current Index Previous Index Increase -2.3 16.7 35.2 7.2 10.1 38.9 -4.8 -5.4 12.0 9.5 8.3 26.8 7.2 11.3 23.2	Current Index Previous Index Increase No Change -2.3 16.7 35.2 27.3 7.2 10.1 38.9 29.4 -4.8 -5.4 12.0 71.2 9.5 8.3 26.8 55.9 7.2 11.3 23.2 60.8			

Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-13.1	13.7	23.7	39.5	36.8

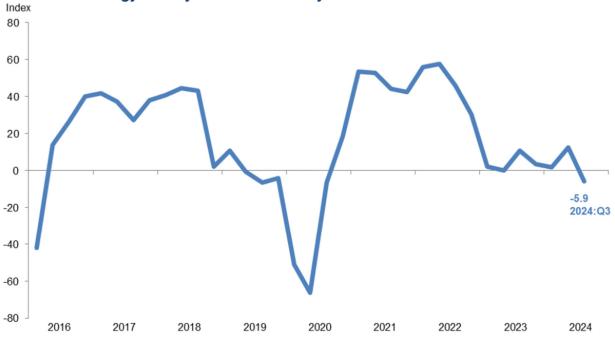
Business Indicators: E&P Firms Current Quarter (versus same quarter a year ago)						
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease	
Level of Business Activity	7.0	18.6	37.6	31.8	30.6	
Oil Production	7.1	3.5	41.2	24.7	34.1	
Natural Gas Wellhead Production	-17.1	2.3	26.8	29.3	43.9	
Capital Expenditures	7.1	1.2	38.1	31.0	31.0	
Expected Level of Capital Expenditures Next Year	17.8	10.3	45.2	27.4	27.4	
Supplier Delivery Time	-4.9	-7.0	12.0	71.1	16.9	
Employment	1.1	5.8	19.0	63.1	17.9	
Employee Hours	7.1	6.9	19.0	69.0	11.9	
Wages and Benefits	35.3	51.7	41.2	52.9	5.9	
Finding and Development Costs	14.2	11.6	32.1	50.0	17.9	
Lease Operating Expenses	36.9	38.0	50.0	36.9	13.1	

Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-9.4	15.0	23.0	44.6	32.4

Business Indicators: O&G Support Services Firms Current Quarter (versus same quarter a year ago)							
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease		
Level of Business Activity	-21.0	13.0	30.2	18.6	51.2		
Utilization of Equipment	-20.0	9.1	25.0	30.0	45.0		
Capital Expenditures	7.2	26.7	40.5	26.2	33.3		
Supplier Delivery Time	-4.8	-2.2	11.9	71.4	16.7		
Lag Time in Delivery of Firm's Services	-4.8	6.8	7.1	81.0	11.9		
Employment	25.6	13.1	41.9	41.9	16.3		
Employment Hours	7.3	19.6	31.7	43.9	24.4		
Wages and Benefits	46.5	54.4	51.2	44.2	4.7		
Input Costs	50.0	66.6	61.9	26.2	11.9		
Prices Received for Services	7.2	11.4	26.2	54.8	19.0		
Operating Margin	-31.0	-15.9	21.4	26.2	52.4		

Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-20.0	11.4	25.0	30.0	45.0

Dallas Fed Energy Survey Business Activity Index



SOURCE: Federal Reserve Bank of Dallas.

Comments from Survey Respondents

These comments are from respondents' completed surveys and have been edited for publication. Comments from the Special Questions survey can be found below the special questions.

Exploration and Production (E&P) Firms

- Recent volatility has started to impact planning discussions for 2025. We have not adjusted our plan yet, but we are starting to work on potential drilling plans for a lower commodity environment.
- The political uncertainty is not helping the market.
- The uncertainties due to legal assaults, cumbersome policies and invasive regulations create severe hurdles for small E&P operators.
- There is greater uncertainty surrounding the economy and the oil market. Much of this has to do
 with the election uncertainty and the anticipated impact on the overall market.
- Natural gas production in the Permian Basin is priced well below the futures market. Several of
 the past months I have received nothing or a negative adjustment to revenue for natural gas. In
 June, one operator paid \$0.09 per million cubic feet, which is above \$0, but accrues little to my
 revenue. I believe this situation will persist for months if not years.
- We are seeing natural gas prices affect drilling rig utilization in the East Texas Basin. The Eastern
 Haynesville drilling rig utilization is dropping off, and drilling rig utilization in the Western
 Haynesville/Bossier Sands play is increasing due to higher production rates being found there.
- Oil inventories are increasing, causing downward pressure on the per barrel price of oil. Instability in Ukraine and the Middle East are a cause for concern for long-term oil and gas deliveries, which OPEC is less influential on. My opinion would suggest an increased oil price in 2025.
- If we don't change from the current U.S. administration, oil prices and the oil industry will decline, and we'll become more dependent on foreign oil imports—hurting our economy and losing goodpaying oil industry jobs.
- Turbulent commodity pricing markets, specifically WTI (West Texas Intermediate) crude oil and Henry Hub natural gas, do not allow for confident future performance projections when it comes to net income. Merger and acquisition (M&A) markets are sluggish with a lack of quality assets and lower deal volume by deal count. Large corporate mergers are leading the M&A space as assets are reshuffled and the larger companies try to create shareholder returns outside of the drill bit. We need a healthier M&A market to grow our company via acquisitions.
- The recession scare is front and center. The presidential election is a side show in terms of actual effects for most energy firms. As the Fed [Federal Reserve] cuts rates, the economy is either headed for a recession, which is bad news for oil, or somehow, we will manage the first soft landing in the history of the nation. For oil and gas companies, they will unfortunately be punished until the soft-landing outlook is actually in the rearview. No one wants to invest in oil and gas. Sentiment has thawed very slightly from zero investors interested to one or two on the margin. It is just brutal out there.
- Our company outlook could increase if the executive leadership shifts to conservative.
- The lack of investor interest in oil and gas exploration is an issue affecting our company. Another
 issue is a decrease in oil and gas revenues due to depletion and lower prices.
- Oilfield operating cost inflation is a major concern in the industry.

- Regulatory uncertainty and changes are affecting our company.
- The administration's "death by a thousand cuts" keeps impacting my company in different quadrants. All are aimed at increasing the cost of doing business in oil and gas and aimed at keeping oil and gas independents from staying in business.

Oil and Gas Support Services Firms

- The consolidation and shutting down of oilfield service firms will hurt the ability of the U.S. to ramp up in the face of international supply disruptions.
- Lead times for electrical components (transformers, capacitor banks, reclosers) have increased from 10–12 weeks to 100–120 weeks, and costs are up 50–80 percent. There's no way the projected increased demand for electricity (driven by data centers and/or artificial intelligence (AI)) will be achievable in the time frame projected.
- I think [there will be] no change until the election. Oil is down an alarming amount, but my clients have me busy.
- The current disconnect between oil price and physical supply is worrisome. Prices are not supportive of the long-term investments needed to maintain adequate supplies through the energy transition. As a result, the current underinvestment will lead to significant inventory shortfalls in the medium term, followed by rapid price escalation. It's going to be a very bumpy ride ... again.
- We are hearing and seeing a continued reining in of activity from our customers due to the
 uncertainty regarding the November elections. There is work out there, but it is just being held
 until there is some certainty regarding energy policy.
- Middle Eastern politics seem to play less and less of a factor in determining the price of oil, and the price more and more reflects worldwide economics.
- Consolidation of operators in the upstream sector continues to ripple through the service sector. Less continuity of work makes it hard to maintain skilled labor.
- Activity levels are up slightly, but the market still feels cautious. Whether the caution is driven by
 the continuous M&A or the election is unclear to us. As a smaller service company, the scale of
 the larger operators is making it more difficult to access goods for smaller operators than we have
 seen in the past.



https://www.acea.auto/press-release/european-auto-industry-calls-for-urgent-action-as-demand-for-evs-declines/

European auto industry calls for urgent action as demand for EVs declines

19 September 2024

Brussels, 19 September 2024 – A continuous trend of shrinking market share for battery electric cars in the EU sends an extremely worrying signal to industry and policymakers. European auto manufacturers, united in ACEA, therefore call on the EU institutions to come forward with urgent relief measures before new CO2 targets for cars and vans come into effect in 2025. Additionally, we urge the European Commission to bring forward the CO2 regulation reviews for light-duty and heavy-duty vehicles, currently scheduled for 2026 and 2027 respectively, to 2025.

The European auto industry supports the Paris Agreement and the EU's 2050 transport decarbonisation targets and has invested billions in electrification to bring vehicles to market. Today, vehicle technology and the availability of zero-emission vehicles are not bottlenecks. We are playing our part in this transition, but unfortunately, the other necessary elements for this systemic shift are not in place. An aggravating factor is the rapid erosion of the EU's competitiveness, as confirmed in the Draghi report.

The latest <u>EU car registration data</u> released by ACEA today once again confirms the electric car market is now on a continual downward trajectory.

As stated by the ACEA Board:

We are missing crucial conditions to reach the necessary boost in production and adoption of zeroemission vehicles: charging and hydrogen refilling infrastructure, as well as a competitive manufacturing environment, affordable green energy, purchase and tax incentives, and a secure supply of raw materials, hydrogen and batteries. Economic growth, consumer acceptance, and trust in infrastructure have not developed sufficiently either.

As a result, the zero-emission transition is highly challenging, with concerns about meeting the 2025 CO2 emission reduction targets for cars and vans on the rise. The current rules do not account for the profound shift in the geopolitical and economic climate over the past years and the law's inherent inability to adjust for real-world developments further erodes the competitiveness of the sector.

This raises the daunting prospect of either multi-billion-euro fines, which could otherwise be invested in the zero-emission transition, or unnecessary production cuts, job losses, and a weakened European supply and value chain at a time when we face fierce competition from other automaking regions.

The industry cannot afford to wait for the review of the CO2 regulations in 2026 and 2027, we need urgent and meaningful action now to reverse the downward trend, restore EU industry competitiveness and reduce strategic vulnerabilities. For heavy-duty vehicles, an earlier review will also be absolutely critical to ensure vital conditions like infrastructure for trucks and buses are scaled up in time.

We stand ready to discuss a package of short-term relief for the 2025 CO2 targets for cars and vans, as well as a fast-track, comprehensive, and robust review of the CO2 Regulations for both cars and trucks, plus targeted secondary legislation, to get the zero-emission transition firmly on track and secure Europe's industrial future.

European auto manufacturers, united in ACEA, call on the EU institutions to come forward with urgent relief measures before new CO2 targets for cars and vans come into effect in 2025.

Download image / photo in high resolution

Notes for editors

- EU car sales are still around 18% lower than pre-pandemic levels in 2019
- Year-to-date EU battery-electric sales volumes have dropped 8,4% in an already shrinking market
- Year-to-date EU battery-electric market share has dropped from 13.9% last year to 12.6% this year
- The market decline is affecting many brands, including and beyond ACEA members, across the board (ACEA August <u>car registration data</u>)
- Only 16% of European non-EV owners are considering that their next vehicle purchase will be an EV, down from 18% in 2021 (McKinsey, 2024)
- In parallel, almost 20% of the current BEV owners said to be likely or very likely to switch back to combustion engine vehicles (McKinsey, 2024)
- EU needs 8 times more charging points per year by 2030 to meet CO2 targets—ACEA report Charging ahead: accelerating the rollout of EU electric vehicle charging infrastructure
- Electric cars: Tax benefits and incentives <u>ACEA report</u> (2024)

About ACEA

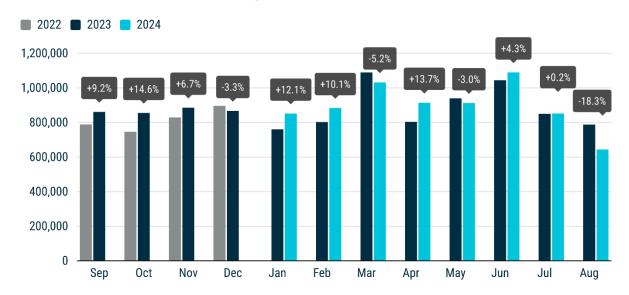


NEW CAR REGISTRATIONS, EUROPEAN UNION

EMBARGOED PRESS RELEASE

6.00 CEST (4.00 GMT), 19 September 2024

New car registrations: -18.3% in August 2024; BEV market share down by almost one third



In **August 2024**, new EU car registrations saw a sharp decrease (-18.3%) with negative results across the region's four major markets: double-digit losses were witnessed in Germany (-27.8%), France (-24.3%), and Italy (-13.4%), with the Spanish market declining by 6.5%.

Eight months into 2024, new car registrations increased by 1.4%, almost reaching 7.2 million units. Spain (+4.5%) and Italy (+3.8%) showed positive but modest performance. On the other hand, the French and the German markets saw their results stagnate (-0.5% and -0.3% respectively).

NEW EU CAR REGISTRATIONS BY POWER SOURCE

In **August**, battery-electric cars accounted for 14.4% of the EU car market, down from 21% the previous year. This represents the fourth consecutive month of decline this year, contrasting sharply with the almost consistent month-on-month increases last year. Plug-in

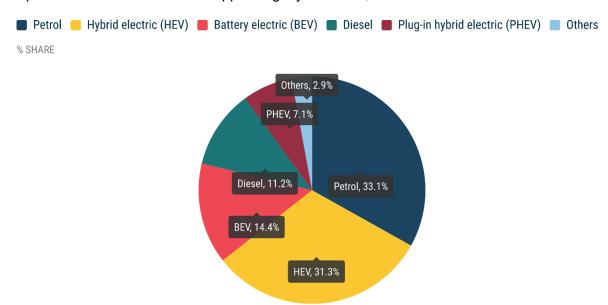
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Data source: the European Automobile Manufacturers' Association (ACEA), based on aggregated data provided by national automobile associations, ACEA members and S&P Global Mobility.

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hybrid car registrations were also marked by a sizeable 22.3% decline. The combined share of petrol and diesel cars also dropped slightly to 44.3%, down from 45.1%.



Electric cars

In **August 2024**, registrations of battery-electric (BEV) cars dropped by 43.9% to 92,627 units (compared to 165,204 the same period last year), with their total market share slipping to 14.4% from 21% a year before. This was driven by the spectacular drop in the two biggest markets for BEV cars: Germany (-68.8%) and France (-33.1%). From January to August, 902,011 new battery-electric cars were registered, representing 12.6% of the market.

Plug-in hybrid car registrations saw a decrease (-22.3%) last month, with declines recorded in all their major markets. In August, plug-in hybrids accounted for 7.1% of the total car market, down from 7.4% last year, with 45,590 units sold.

Hybrid-electric vehicles are the only vehicle type that saw growth in August, with car registrations rising by 6.6% to 201,552 units. Three of the four largest markets for this segment recorded gains: Spain (+12.6%), France (+12.5%), and Italy (+2.5%), while Germany (-0.1%) remained stable. The hybrid-electric market share reached 31.3%, up from 24% in August 2023.

Petrol and diesel cars

In **August 2024**, petrol car sales dropped by 17.1%, all four key markets recording significant declines: France (-36.6%), Italy (-18.8%), Spain (-17.4%), and Germany (-7.4%). Petrol cars now represent 33.1% of the market, down from 32.6% in August last year.

The diesel car market saw a decline of 26.4%, resulting in a 11.2% share of the market last August. Double-digit decreases were observed in almost all European markets.

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NEW CAR REGISTRATIONS BY MARKET AND POWER SOURCE **MONTHLY**

	BATTE	RY ELECTE	RIC	PLUG	S-IN HYBRI	D	HYBRI	D ELECTR	IC ¹	0	THERS ²			PETROL			DIESEL			TOTAL	
	August	August 9	% change	August	August 9	% change	August	August	% change	August	August 9	6 change	August	August	% change	August	August %	6 change	August	August	% change
	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23
Austria	3,100	3,945	-21.4	1,111	1,442	-23.0	4,744	4,036	+17.5	0	1	-100.0	5,735	5,545	+3.4	2,425	3,821	-36.5	17,115	18,790	-8.9
Belgium	10,027	9,241	+8.5	3,723	8,639	-56.9	2,510	2,562	-2.0	195	151	+29.1	11,533	13,647	-15.5	1,345	2,558	-47.4	29,333	36,798	-20.3
Bulgaria	94	151	-37.7	46	50	-8.0	90	81	+11.1	0	11	-100.0	2,128	2,678	-20.5	580	446	+30.0	2,938	3,417	-14.0
Croatia	204	147	+38.8	82	48	+70.8	969	888	+9.1	71	134	-47.0	1,470	1,545	-4.9	545	740	-26.4	3,341	3,502	-4.6
Cyprus	77	41	+87.8	36	26	+38.5	280	246	+13.8	0	0		408	407	+0.2	11	16	-31.3	812	736	+10.3
Czechia	779	595	+30.9	348	509	-31.6	3,915	3,815	+2.6	374	254	+47.2	7,911	9,883	-20.0	3,757	3,662	+2.6	17,084	18,718	-8.7
Denmark	7,050	4,772	+47.7	438	1,236	-64.6	1,760	2,023	-13.0	0	0		3,085	4,807	-35.8	521	713	-26.9	12,854	13,551	-5.1
Estonia	104	124	-16.1	110	52	+111.5	775	772	+0.4	8	3	166.7	449	621	-27.7	235	196	+19.9	1,681	1,768	-4.9
Finland	1,893	2,812	-32.7	1,341	1,768	-24.2	1,860	1,797	+3.5	6	31	-80.6	1,157	1,030	+12.3	291	385	-24.4	6,548	7,823	-16.3
France	13,143	19,657	-33.1	6,164	9,527	-35.3	30,559	27,166	+12.5	3,149	4,290	-26.6	27,093	42,743	-36.6	5,869	10,216	-42.6	85,977	113,599	-24.3
Germany	27,024	86,649	-68.8	13,565	14,552	-6.8	55,779	55,844	-0.1	973	1,106	-12.0	70,007	75,598	-7.4	29,974	39,668	-24.4	197,322	273,417	-27.8
Greece	514	403	+27.5	484	636	-23.9	3,948	3,684	+7.2	211	229	-7.9	2,648	4,071	-35.0	344	1,345	-74.4	8,149	10,368	-21.4
Hungary	518	476	+8.8	737	512	+43.9	3,818	3,813	+0.1	18	26	-30.8	2,065	3,087	-33.1	955	1,041	-8.3	8,111	8,955	-9.4
Ireland	1,256	1,782	-29.5	689	1,020	-32.5	1,925	1,273	+51.2	0	0		1,772	2,055	-13.8	1,902	2,131	-10.7	7,544	8,261	-8.7
Italy	2,399	4,059	-40.9	2,592	3,290	-21.2	27,943	27,272	+2.5	7,289	7,911	-7.9	19,533	24,053	-18.8	9,405	13,244	-29.0	69,161	79,829	-13.4
Latvia	114	151	-24.5	57	23	+147.8	476	528	-9.8	23	19	+21.1	507	652	-22.2	231	262	-11.8	1,408	1,635	-13.9
Lithuania	105	151	-30.5	113	79	+43.0	1,009	889	+13.5	54	27	+100.0	518	799	-35.2	299	307	-2.6	2,098	2,252	-6.8
Luxembourg	873	924	-5.5	250	347	-28.0	729	666	+9.5	0	0		762	1,005	-24.2	297	472	-37.1	2,911	3,414	-14.7
Malta	150	125	+20.0	33	75	-56.0	109	114	-4.4	0	0		314	258	+21.7	13	15	-13.3	619	587	+5.5
Netherlands	9,418	9,147	+3.0	3,869	3,495	+10.7	8,274	6,819	+21.3	171	185	-7.6	5,630	7,786	-27.7	261	290	-10.0	27,623	27,722	-0.4
Poland	979	1,235	-20.7	866	872	-0.7	17,091	15,705	+8.8	1,087	805	+35.0	14,065	14,429	-2.5	2,983	3,131	-4.7	37,071	36,177	+2.5
Portugal	2,484	3,068	-19.0	1,816	2,191	-17.1	2,287	1,692	+35.2	976	752	+29.8	3,292	3,883	-15.2	967	1,464	-33.9	11,822	13,050	-9.4
Romania	494	1,608	-69.3	-	-		4,670	4,106	+13.7	1,035	1,450	-28.6	2,894	4,237	-31.7	879	1,490	-41.0	9,972	12,891	-22.6
Slovakia	159	189	-15.9	156	280	-44.3	2,018	2,098	-3.8	129	145	-11.0	3,649	3,420	+6.7	996	1,355	-26.5	7,107	7,487	-5.1
Slovenia	183	385	-52.5	91	73	+24.7	432	449	-3.8	192	30	+540.0	2,130	1,751	+21.6	650	552	+17.8	3,678	3,240	+13.5
Spain	2,696	3,583	-24.8	3,010	3,362	-10.5	21,261	18,885	+12.6	2,442	1,584	+54.2	18,050	21,864	-17.4	4,863	6,676	-27.2	52,322	55,954	-6.5
Sweden	6,790	9,784	-30.6	3,863	4,556	-15.2	2,321	1,891	+22.7	231	543	-57.5	4,252	5,285	-19.5	1,579	1,812	-12.9	19,036	23,871	-20.3
EUROPEAN UNION	92,627	165,204	-43.9	45,590	58,660	-22.3	201,552	189,114	+6.6	18,634	19,687	-5.3	213,057	257,139	-17.1	72,177	98,008	-26.4	643,637	787,812	-18.3
Iceland	192	700	-72.6	92	121	-24.0	98	130	-24.6	0	0		37	81	-54.3	45	133	-66.2	464	1,165	-60.2
Norway	10,480	9,250	+13.3	161	724	-77.8	249	675	-63.1	0	0		59	122	-51.6	165	312	-47.1	11,114	11,083	+0.3
Switzerland	3,421	4,289	-20.2	1,231	1,715	-28.2	5,604	5,165	+8.5	0	1	-100.0	4,261	6,038	-29.4	1,410	1,769	-20.3	15,927	18,977	-16.1
EFTA	14,093	14,239	-1.0	1,484	2,560	-42.0	5,951	5,970	-0.3	0	1	-100.0	4,357	6,241	-30.2	1,620	2,214	-26.8	27,505	31,225	-11.9
United Kingdom	19,113	17,243	+10.8	5,786	6,601	-12.3	29,076	23,410	+24.2	0	0		27,894	34,756	-19.7	2,706	3,647	-25.8	84,575	85,657	-1.3
EU + EFTA + UK	125,833	196,686	-36.0	52,860	67,821	-22.1	236,579	218,494	+8.3	18,634	19,688	-5.4	245,308	298,136	-17.7	76,503	103,869	-26.3	755,717	904,694	-16.5

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¹ Includes full and mild hybrids ² Includes fuel-cell electric vehicles, natural gas vehicles, LPG, E85/ethanol, and other fuels



NEW CAR REGISTRATIONS BY MARKET AND POWER SOURCE

YEAR TO DATE

	BATTE	RY ELECT	RIC	PLUG	-IN HYBRIC		HYBRI	D ELECTE	RIC ¹	_0	THERS ²			PETROL			DIESEL			TOTAL	
	Jan-Aug	Jan-Aug ⁴	% change	Jan-Aug	Jan-Aug %	change	Jan-Aug	Jan-Aug	% change	Jan-Aug	Jan-Aug 9	% change	Jan-Aug	Jan-Aug	% change	Jan-Aug	Jan-Aug %	6 change	Jan-Aug	Jan-Aug %	% change
	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23	2024	2023	24/23
Austria	28,211	30,638	-7.9	11,212	11,554	-3.0	41,063	33,914	+21.1	13	15	-13.3	58,518	54,068	+8.2	32,112	32,857	-2.3	171,129	163,046	+5.0
Belgium	84,137	59,550	+41.3	53,492	68,009	-21.3	29,498	24,994	+18.0	2,439	2,708	-9.9	138,271	148,622	-7.0	17,055	32,059	-46.8	324,892	335,942	-3.3
Bulgaria	1,012	1,162	-12.9	334	204	+63.7	635	453	+40.2	52	46	+13.0	22,903	18,505	+23.8	4,947	4,030	+22.8	29,883	24,400	+22.5
Croatia	1,264	1,197	+5.6	933	617	+51.2	12,155	9,233	+31.6	921	1,168	-21.1	23,673	22,110	+7.1	9,605	9,042	+6.2	48,551	43,367	+12.0
Cyprus	652	458	+42.4	441	303	+45.5	4,788	3,617	+32.4	0	0		4,807	5,341	-10.0	275	344	-20.1	10,963	10,063	+8.9
Czechia	5,763	4,070	+41.6	3,399	3,413	-0.4	32,814	26,080	+25.8	3,150	2,659	+18.5	74,120	79,121	-6.3	34,509	35,011	-1.4	153,755	150,354	+2.3
Denmark	51,945	34,440	+50.8	4,647	11,583	-59.9	20,213	20,612	-1.9	0	1	-100.0	29,498	37,139	-20.6	4,430	5,324	-16.8	110,733	109,099	+1.5
Estonia	875	887	-1.4	594	371	+60.1	6,091	6,018	+1.2	124	46	+169.6	3,861	6,419	-39.9	2,157	1,980	+8.9	13,702	15,721	-12.8
Finland	13,802	19,815	-30.3	10,107	12,232	-17.4	16,763	16,232	+3.3	141	356	-60.4	7,492	9,549	-21.5	2,594	2,911	-10.9	50,899	61,095	-16.7
France	188,575	174,443	+8.1	89,023	100,747	-11.6	359,536	265,156	+35.6	43,815	46,278	-5.3	358,217	429,095	-16.5	87,734	116,602	-24.8	1,126,900	1,132,321	-0.5
Germany	241,911	355,575	-32.0	117,925	107,962	+9.2	484,804	433,060	+11.9	10,163	10,633	-4.4	703,990	671,407	+4.9	348,433	334,927	+4.0	1,907,226	1,913,564	-0.3
Greece	4,737	4,188	+13.1	5,329	4,941	+7.9	40,055	27,931	+43.4	1,528	2,491	-38.7	38,464	40,520	-5.1	8,261	13,038	-36.6	98,374	93,109	+5.7
Hungary	5,753	3,749	+53.5	4,080	3,809	+7.1	36,345	29,116	+24.8	110	435	-74.7	24,144	27,661	-12.7	9,544	9,121	+4.6	79,976	73,891	+8.2
Ireland	15,122	20,266	-25.4	11,096	9,298	+19.3	24,871	23,495	+5.9	0	0		35,195	34,737	+1.3	25,856	25,403	+1.8	112,140	113,199	-0.9
Italy	35,785	40,820	-12.3	41,799	47,204	-11.5	421,013	366,665	+14.8	102,896	95,640	+7.6	325,638	295,009	+10.4	153,595	195,647	-21.5	1,080,726	1,040,985	+3.8
Latvia	805	1,279	-37.1	364	247	+47.4	4,052	3,922	+3.3	243	246	-1.2	4,257	5,739	-25.8	1,806	2,196	-17.8	11,527	13,629	-15.4
Lithuania	1,115	1,347	-17.2	926	691	+34.0	8,888	7,243	+22.7	363	299	+21.4	5,908	7,351	-19.6	2,388	2,427	-1.6	19,588	19,358	+1.2
Luxembourg	8,565	7,114	+20.4	2,629	3,287	-20.0	6,920	6,421	+7.8	0	0		9,982	11,793	-15.4	4,201	5,507	-23.7	32,297	34,122	-5.3
Malta	1,598	829	+92.8	371	712	-47.9	1,010	1,159	-12.9	0	1	-100.0	2,139	2,036	+5.1	239	443	-46.0	5,357	5,180	+3.4
Netherlands	77,990	74,627	+4.5	35,588	34,472	+3.2	73,656	60,152	+22.4	1,516	1,383	+9.6	57,000	83,321	-31.6	2,898	2,968	-2.4	248,648	256,923	-3.2
Poland	10,991	10,885	+1.0	9,257	8,699	+6.4	164,715	118,041	+39.5	9,543	8,150	+17.1	131,722	135,055	-2.5	30,942	30,409	+1.8	357,170	311,239	+14.8
Portugal	25,015	22,839	+9.5	18,394	16,906	+8.8	23,319	21,048	+10.8	10,230	6,623	+54.5	53,170	54,397	-2.3	12,661	17,466	-27.5	142,789	139,279	+2.5
Romania	6,877	9,682	-29.0	-	-		39,388	28,254	+39.4	10,822	12,824	-15.6	34,883	36,617	-4.7	14,564	11,258	+29.4	106,534	98,635	+8.0
Slovakia	1,565	1,438	+8.8	1,395	1,874	-25.6	18,031	16,149	+11.7	1,182	1,281	-7.7	28,761	29,573	-2.7	10,037	10,630	-5.6	60,971	60,945	+0.04
Slovenia	1,977	2,825	-30.0	747	803	-7.0	3,786	4,952	-23.5	504	392	+28.6	22,549	19,255	+17.1	6,981	6,099	+14.5	36,544	34,326	+6.5
Spain	31,665	30,881	+2.5	38,168	40,189	-5.0	246,963	197,089	+25.3	20,714	15,515	+33.5	265,552	275,294	-3.5	68,489	83,612	-18.1	671,551	642,580	+4.5
Sweden	54,304	68,714	-21.0	39,016	37,570	+3.8	17,102	14,887	+14.9	4,223	4,347	-2.9	39,743	40,342	-1.5	13,279	15,968	-16.8	167,667	181,828	-7.8
EUROPEAN UNION	902,011	983,718	-8.3	501,266	527,697	-5.0	2,138,474	1,765,893	+21.1	224,692	213,537	+5.2	2,504,457	2,580,076	-2.9	909,592	1,007,279	-9.7	7,180,492	7,078,200	+1.4
Iceland	1,398	5,062	-72.4	1,328	1,341	-1.0	1,814	2,581	-29.7	0	2	-100.0	1,467	1,536	-4.5	1,644	2,179	-24.6	7,651	12,701	-39.8
Norway	68,431	70,673	-3.2	2,418	6,025	-59.9	5,262	5,242	+0.4	9	2	+350.0	737	1,071	-31.2	1,971	2,142	-8.0	78,828	85,155	-7.4
Switzerland	28,242	31,102	-9.2	13,414	14,125	-5.0	50,483	44,004	+14.7	15	62	-75.8	47,913	56,420	-15.1	15,508	15,615	-0.7	155,575	161,328	-3.6
EFTA	98,071	106,837	-8.2	17,160	21,491	-20.2	57,559	51,827	+11.1	24	66	-63.6	50,117	59,027	-15.1	19,123	19,936	-4.1	242,054	259,184	-6.6
United Kingdom	213,544	193,221	+10.5	100,457	80,458	+24.9	434,698	368,346	+18.0	0	0		453,937	490,483	-7.5	36,219	46,790	-22.6	1,238,855	1,179,298	+5.1
EU + EFTA + UK	1,213,626	1,283,776	-5.5	618,883	629,646	-1.7	2,630,731	2,186,066	+20.3	224,716	213,603	+5.2	3,008,511	3,129,586	-3.9	964,934	1,074,005	-10.2	8,661,401	8,516,682	+1.7

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¹ Includes full and mild hybrids ² Includes fuel-cell electric vehicles, natural gas vehicles, LPG, E85/ethanol, and other fuels

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NEW CAR REGISTRATIONS BY MANUFACTURER EUROPEAN UNION (EU)

			AUGU	ST				JANUARY-A	AUGUST	
	% sh	are ¹	Un	its	% change	% sh	are ¹	Uni	ts	% change
	2024	2023	2024	2023	24/23	2024	2023	2024	2023	24/23
Volkswagen Group	27.8	26.7	179,041	210,078	-14.8	26.4	26.4	1,895,390	1,865,118	+1.6
Volkswagen	11.2	11.2	71,841	88,494	-18.8	10.8	11.1	777,225	783,628	-0.8
Skoda	6.9	5.6	44,424	44,346	+0.2	5.9	5.5	427,180	386,006	+10.7
Audi	5.3	5.5	34,241	43,279	-20.9	4.9	5.5	351,229	386,013	-9.0
Seat	2.1	1.8	13,590	14,208	-4.3	2.2	2.1	160,159	148,641	+7.7
Cupra	1.7	1.9	10,730	14,854	-27.8	1.7	1.5	120,603	107,865	+11.8
Porsche	0.6	0.6	3,865	4,480	-13.7	8.0	0.7	54,612	48,270	+13.1
Others ²	0.1	0.1	350	417	-16.1	0.1	0.1	4,382	4,695	-6.7
Stellantis	14.4	16.7	92,667	131,477	-29.5	17.5	18.3	1,254,421	1,295,335	-3.2
Peugeot	5.0	4.9	32,052	38,300	-16.3	5.3	5.7	383,876	401,999	-4.51
Citroen	2.1	3.1	13,793	24,287	-43.2	3.4	3.2	243,850	226,776	+7.5
Opel/Vauxhall	3.5	3.5	22,344	27,644	-19.2	3.3	3.4	236,446	243,152	-2.8
Fiat ³	2.0	3.2	12,604	24,862	-49.3	3.1	3.5	221,712	244,229	-9.2
Jeep	1.0	1.0	6,667	7,880	-15.4	1.1	1.1	82,515	79,172	+4.2
Lancia/Chrysler	0.2	0.3	1,376	2,499	-44.9	0.4	0.4	29,060	29,796	-2.5
Alfa Romeo	0.3	0.3	1,710	2,365	-27.7	0.4	0.5	28,159	31,900	-11.7
DS	0.3	0.4	1,850	3,240	-42.9	0.4	0.5	25,244	32,972	-23.4
Others ⁴	0.0	0.1	271	400	-32.3	0.0	0.1	3,559	5,339	-33.3
Renault Group	10.0	9.5	64,392	74,765	-13.9	10.7	10.9	770,196	770,266	-0.0
Renault	5.0	4.8	32,227	38,195	-15.6	5.7	5.9	406,003	416,420	-2.5
Dacia	5.0	4.6	32,041	36,388	-11.9	5.0	5.0	361,630	351,746	+2.8
Alpine	0.0	0.0	124	182	-31.9	0.0	0.0	2,563	2,100	+22.0
Hyundai Group	8.8	8.4	56,450	65,987	-14.5	8.0	8.5	575,181	601,217	-4.3
Hyundai	4.4	4.3	28,121	34,233	-17.9	4.1	4.1	293,504	291,317	+0.8
Kia	4.4	4.0	28,329	31,754	-10.8	3.9	4.4	281,677	309,900	-9.1
Toyota Group	8.5	7.2	54,539	56,984	-4.3	8.0	6.9	571,574	484,931	+17.9
Toyota	7.8	6.8	50,404	53,689	-6.1	7.5	6.5	535,214	457,731	+16.9
Lexus	0.6	0.4	4,135	3,295	+25.5	0.5	0.4	36,360	27,200	+33.7
BMW Group	7.3	7.1	46,963	55,672	-15.6	6.5	6.6	466,473	467,995	-0.3
BMW	6.3	5.8	40,659	45,500	-10.6	5.7	5.4	406,620	379,812	+7.1
Mini	1.0	1.3	6,304	10,172	-38.0	0.8	1.2	59,853	88,183	-32.1
Mercedes-Benz	5.8	5.4	37,464	42,899	-12.7	5.1	5.3	365,023	376,677	-3.1
Mercedes	5.8	5.0	37,428	39,367	-4.9	4.9	5.1	354,103	358,739	-1.3
Smart	0.0	0.4	36	3,532	-99.0	0.2	0.3	10,920	17,938	-39.1
Ford	3.2	3.3	20,532	25,925	-20.8	2.9	3.5	210,351	249,775	-15.8
Volvo Cars	2.5	1.6	16,113	12,533	+28.6	2.7	2.0	192,365	139,565	+37.8
Tesla	2.4	3.5	15,534	27,341	-43.2	2.1	2.5	152,607	179,363	-14.9
Nissan	1.3	1.7	8,641	13,437	-35.7	1.9	1.8	139,789	129,089	+8.3
Suzuki	1.6	1.5	10,436	11,594	-10.0	1.7	1.4	121,922	99,364	+22.7
SAIC Motor	1.3	1.5	8,308	11,461	-27.5	1.4	1.2	102,924	87,136	+18.1
Mazda	1.3	1.3	8,308	10,347	-19.7	1.3	1.3	93,714	95,422	-1.8
Jaguar Land Rover Group	0.6	0.7	4,099	5,621	-27.1	0.6	0.7	43,961	46,244	-4.9
Land Rover	0.6	0.6	3,836	4,833	-20.6	0.6	0.6	39,755	39,246	+1.3
Jaguar	0.0	0.1	263	788	-66.6	0.1	0.1	4,206	6,998	-39.9
Mitsubishi	0.5	0.4	2,964	3,013	-1.6	0.6	0.4	42,219	24,790	+70.3
Honda	0.4	0.3	2,696	2,738	-1.5	0.4	0.3	27,237	18,845	+44.5

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¹ ACEA estimation based on total by market

 $^{^{\}rm 2}$ Bentley, Bugatti, Lamborghini, and MAN

³ Includes Abarth

⁴ Dodge, Maserati, and RAM



NEW CAR REGISTRATIONS BY MANUFACTURER

EU + EFTA + UK

			AUGUS	ST T				JANUARY-A	UGUST	
	% sh	are ¹	Unit	s	% change	% sh	are ¹	Uni	ts	% change
	2024	2023	2024	2023	24/23	2024	2023	2024	2023	24/23
Volkswagen Group	27.7	26.7	209,089	241,257	-13.3	26.0	26.1	2,253,034	2,226,904	+1.2
Volkswagen	10.9	11.1	82,295	100,275	-17.9	10.5	10.8	907,645	915,845	-0.9
Skoda	6.7	5.6	50,588	50,363	+0.4	5.7	5.3	491,341	449,586	+9.3
Audi	5.6	5.7	42,274	51,278	-17.6	5.2	5.7	446,464	488,193	-8.5
Seat	2.1	1.8	16,222	16,275	-0.3	2.2	2.0	190,027	172,584	+10.1
Cupra	1.7	1.8	12,506	16,634	-24.8	1.6	1.5	142,083	127,124	+11.8
Porsche	0.6	0.7	4,778	5,921	-19.3	0.8	0.8	69,602	67,129	+3.7
Others ²	0.1	0.1	426	511	-16.6	0.1	0.1	5,872	6,443	-8.9
Stellantis	13.7	16.1	103,612	145,348	-28.7	16.2	17.0	1,401,967	1,449,515	-3.3
Peugeot	4.8	4.7	35,974	42,075	-14.5	5.0	5.2	430.939	444,831	-3.1
Opel/Vauxhall	3.4	3.7	25,908	33,773	-23.3	3.4	3.6	293,375	309,659	-5.3
Citroen	2.1	2.9	15,517	26,367	-41.1	3.1	2.9	265,295	248,393	+6.8
Fiat ³	1.8	2.9	13,556	26,168	-48.2	2.7	3.0	234,595	258,575	-9.3
	1.0	0.9	7,202	20, 100 8,104	-40.2 -11.1					-9.3 +7.0
Jeep Alfa Danna			,	,		1.0	1.0	88,522	82,716	
Alfa Romeo	0.2	0.3	1,826	2,548	-28.3	0.3	0.4	29,773	33,927	-12.2
Lancia/Chrysler	0.2	0.3	1,377	2,499	-44.9	0.3	0.3	29,061	29,802	-2.5
DS	0.3	0.4	1,941	3,357	-42.2	0.3	0.4	26,223	35,206	-25.5
Others ⁴	0.0	0.1	311	457	-31.9	0.0	0.1	4,184	6,406	-34.7
Renault Group	9.3	8.8	69,913	79,373	-11.9	9.7	9.7	837,665	822,861	+1.8
Renault	4.7	4.5	35,703	40,955	-12.8	5.2	5.2	447,536	444,589	+0.7
Dacia	4.5	4.2	34,068	38,210	-10.8	4.5	4.4	387,228	375,875	+3.0
Alpine	0.0	0.0	142	208	-31.7	0.0	0.0	2,901	2,397	+21.0
Hyundai Group	8.9	8.5	66,901	76,585	-12.6	8.4	8.8	724,725	748,509	-3.2
Kia	4.5	4.1	33,850	37,104	-8.8	4.2	4.6	362,834	390,960	-7.2
Hyundai	4.4	4.4	33,051	39,481	-16.3	4.2	4.2	361,891	357,549	+1.2
Toyota Group	8.1	7.1	61,324	64,667	-5.2	7.7	6.9	664,875	585,197	+13.6
Toyota	7.5	6.7	56,475	60,460	-6.6	7.1	6.4	617,374	548,025	+12.7
Lexus	0.6	0.5	4,849	4,207	+15.3	0.5	0.4	47,501	37,172	+27.8
BMW Group	7.3	7.1	54,994	64,455	-14.7	6.9	6.8	596,623	581,575	+2.6
BMW	6.3	5.8	47,521	52,563	-9.6	5.9	5.4	509,390	463,059	+10.0
Mini	1.0	1.3	7,473	11,892	-37.2	1.0	1.4	87,233	118,516	-26.4
Mercedes-Benz	5.8	5.3	43,544	48,220	-9.7	5.1	5.2	441,804	446,467	-1.0
Mercedes	5.8	4.9	43,508	44,631	-2.5	5.0	5.0	430,367	428,066	+0.5
Smart	0.0	0.4	36	3,589	-99.0	0.1	0.2	11,437	18,401	-37.8
Ford	3.5	3.8	26,289	34,340	-23.4	3.3	4.1	284,982	348,036	-18.1
Volvo Cars	2.8	1.7	20,891	15,283	+36.7	2.8	2.1	245,858	181,096	+35.8
Nissan	1.6	1.8	12,148	16,666	-27.1	2.4	2.2	210,985	188,362	+12.0
Tesla	2.9	3.8	21,701	34,145	-36.4	2.3	2.8	201,042	238,887	-15.8
SAIC Motor	1.5	1.7	11,333	15,191	-25.4	1.9	1.6	161,059	138,408	+16.4
Suzuki	1.6	1.5	12,242	13,713	-10.7	1.7	1.4	143,069	119,379	+19.8
Mazda	1.3	1.3	9,817	11,980	-18.1	1.3	1.4	114,987	118,826	-3.2
Jaguar Land Rover Group	1.0	0.8	7,198	7,444	-3.3	1.2	1.1	102,498	93,360	+9.8
Land Rover	0.8	0.7	6,275	6,284	-0.1	1.0	0.9	85,800	77,939	+10.1
Jaguar	0.0	0.7	923	1,160	-20.4	0.2	0.9	16,698	15,421	+8.3
Honda	0.6	0.1	4,602	3,817	+20.4	0.2	0.4	51,979	37,369	+39.1
Mitsubishi	0.6	0.4	3,139	3,160	-0.7	0.5	0.4	44,028	26,100	+68.7
MITSUNISIII	0.4	0.3	3, 139	3,100	-0.7	0.5	0.3	44,028	20,100	+00.7

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¹ ACEA estimation based on total by market

 $^{^{\}rm 2}$ Bentley, Bugatti, Lamborghini, and MAN

³ Includes Abarth

⁴ Dodge, Maserati, and RAM

IFIC Monthly Investment Fund Statistics – August 2024 Mutual fund and exchange-traded fund (ETF) assets and sales

September 20, 2024 (Toronto) – The Investment Funds Institute of Canada (IFIC) today announced investment fund net sales and net assets for August 2024.

Mutual fund assets totalled \$2.145 trillion at the end of August, up by \$7.7 billion or 0.4 per cent since July. Mutual fund net sales were \$2.4 billion in August.

ETF assets totalled \$464.0 billion at the end of August, up by \$5.9 billion or 1.3 per cent since July. ETF net sales were \$4.3 billion in August.

August insights

- Mutual fund net sales were positive for the second consecutive month.
- Year to date, mutual funds experienced inflows of \$3.6 billion, compared to outflows of \$23.2 billion over the same period last year.
- Money market funds experienced the largest single month of outflows since November 2021, largely the result of outflows from high-interest saving account funds.
- Year to date, ETFs experienced inflows of \$41.6 billion, which is 82 per cent higher than inflows over the same period last year.

Mutual fund net sales/net redemptions (\$ millions)*

Asset class	Aug 2024	Jul 2024	Aug 2023	YTD 2024	YTD 2023
Long-term funds					
Balanced	(1,383)	(1,025)	(4,750)	(21,271)	(31,002)
Equity	1,093	2,088	(2,152)	1,212	(13,584)
Bond	2,538	3,307	(427)	16,339	8,591
Specialty	547	800	366	5,157	2,642
Total long-term funds	2,795	5,169	(6,963)	1,436	(33,353)
Total money market funds	(420)	31	1,302	2,194	10,142
Total	2,375	5,200	(5,661)	3,630	(23,211)

Mutual fund net assets (\$ billions)*

Asset class	Aug 2024	Jul 2024	Aug 2023	Dec 2023
Long-term funds				
Balanced	964.3	962.9	893.6	904.3
Equity	823.5	821.3	701.3	714.4
Bond	268.7	264.7	234.5	242.3
Specialty	34.1	33.7	25.8	27.0
Total long-term funds	2,090.6	2,082.6	1,855.2	1,888.0
Total money market funds	54.4	54.8	45.7	50.7
Total	2,145.0	2,137.4	1,900.9	1,938.7

* See below for important information about this data.

ETF net sales/net redemptions (\$ millions)*

Asset class	Aug 2024	Jul 2024	Aug 2023	YTD 2024	YTD 2023
Long-term funds					
Balanced	464	558	140	3,305	1,103
Equity	1,748	2,380	330	22,822	6,776
Bond	1,176	1,463	641	13,359	7,085
Specialty	991	254	(280)	1,288	1,047
Total long-term funds	4,378	4,655	832	40,775	16,011
Total money market funds	(94)	310	1,051	863	6,864
Total	4,285	4,965	1,883	41,638	22,875

ETF net assets (\$ billions)*

Asset class	Aug 2024	Jul 2024	Aug 2023	Dec 2023
Long-term funds				
Balanced	20.2	19.6	13.9	15.1
Equity	290.5	286.6	219.7	232.5
Bond	109.2	107.7	86.3	94.6
Specialty	17.8	17.7	11.7	14.4
Total long-term funds	437.8	431.7	331.6	356.7
Total money market funds	26.3	26.4	23.1	25.3
Total	464.0	458.1	354.7	382.0

^{*} See below for important information about data.

IFIC direct survey data (which accounts for approximately 87 per cent of total mutual fund industry assets and approximately 80 per cent of total ETF industry assets) is complemented by estimated data to provide comprehensive industry totals.

IFIC makes every effort to verify the accuracy, currency, and completeness of the information, however, IFIC does not guarantee, warrant, represent or undertake that the information provided is correct, accurate or current.

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* Important information about investment fund data

- 1. Mutual fund data is adjusted to remove double counting arising from mutual funds that invest in other mutual funds.
- 2. Starting with January 2022 data, ETF data is adjusted to remove double counting arising from Canadian-listed ETFs that invest in units of other Canadian-listed ETFs. Any references to IFIC ETF assets and sales figures prior to 2022 data should indicate that the data has not been adjusted for ETF of ETF double counting.
- 3. The balanced funds category includes funds that invest directly in a mix of stocks and bonds or obtain exposure through investing in other funds.
- 4. Mutual fund data reflects the investment activity of Canadian retail investors.
- ETF data reflects the investment activity of Canadian retail and institutional investors.

About IFIC

The Investment Funds Institute of Canada is the voice of Canada's investment funds industry. IFIC brings together 150 organizations, including fund managers, distributors and industry service organizations to foster a strong, stable investment sector where investors can realize their financial goals. By connecting Canada's savers to Canada's economy, our industry contributes significantly to Canadian economic growth and job creation. Learn more about IFIC

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ifo Business Climate Index has Declined

Munich, September 24, 2024 – Sentiment has once again deteriorated at companies in Germany. The ifo Business Climate Index fell in September to 85.4 points, from 86.6 points in August, the fourth decline in a row. The companies were particularly less satisfied with the current business situation. The outlook for the coming months continues to decline. The German economy is coming under ever-increasing pressure.

In *manufacturing*, the index fell to its lowest level since June 2020. The companies assessed their current situation to be significantly poorer. Expectations are also significantly more pessimistic. The lack of orders has intensified. The core sectors of Germany industry are struggling.

In the *service sector*, the business climate has declined. The companies were significantly less satisfied with the current situation. On the other hand, expectations were somewhat less skeptical. Sentiment in hospitality and tourism improved.

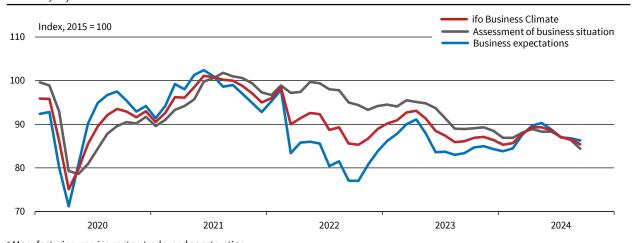
In *trade*, the index has fallen. In particular, the outlook for the coming months was again marked by increased skepticism. Traders also assessed their current situation to be slightly poorer.

In *construction*, the index climbed due to a decline in pessimistic expectations. On the other hand, the companies were somewhat less satisfied by the current business situation.

Clemens Fuest President of the ifo Institute

ifo Business Climate Germanya

Seasonally adjusted



^a Manufacturing, service sector, trade, and construction. Source: ifo Business Survey, September 2024.

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ifo Business Climate Germany (Index, 2015 = 100, seasonally adjusted)

Month/year	09/23	10/23	11/23	12/23	01/24	02/24	03/24	04/24	05/24	06/24	07/24	08/24	09/24
Climate	86.1	86.9	87.1	86.4	85.3	85.7	87.8	89.3	89.3	88.6	87.0	86.6	85.4
Situation	88.9	89.1	89.3	88.5	86.9	86.9	88.1	88.9	88.3	88.3	87.1	86.4	84.4
Expectations	83.4	84.7	85.0	84.3	83.8	84.5	87.6	89.7	90.3	88.8	87.0	86.8	86.3

Source: ifo Business Survey, September 2024

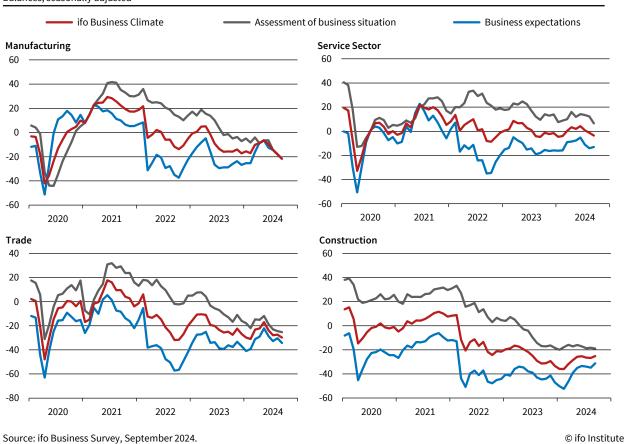
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For long time-series in Excel format, please see https://www.ifo.de/en/umfragen/time-series.



ifo Business Climate, Business Situation, and Expectations by Sector

Balances, seasonally adjusted



ifo Business Climate Germany by Sector (Balances, seasonally adjusted)

Month/year	09/23	10/23	11/23	12/23	01/24	02/24	03/24	04/24	05/24	06/24	07/24	08/24	09/24
Germany	-11.9	-10.0	-9.5	-11.2	-13.5	-12.7	-8.1	-4.9	-4.8	-6.4	-9.8	-10.6	-13.4
Manufacturing	-15.6	-15.8	-14.0	-17.2	-15.5	-17.0	-10.2	-8.8	-6.5	-9.4	-14.3	-17.8	-21.6
Service sector	-4.7	-1.2	-2.3	-1.5	-4.6	-3.9	0.3	3.3	1.9	4.2	0.8	-1.3	-3.5
Trade	-24.9	-27.5	-22.4	-26.8	-29.8	-30.9	-23.1	-22.2	-17.0	-23.7	-27.9	-27.4	-29.8
Construction	-31.3	-31.1	-29.3	-33.4	-35.8	-36.0	-31.9	-28.5	-25.7	-25.4	-26.5	-26.8	-25.2

Source: ifo Business Survey, September 2024.

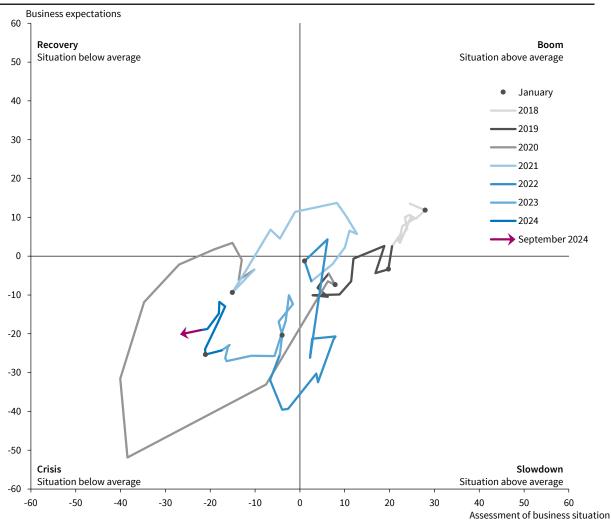
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The ifo Business Climate is based on approx. 9,000 monthly responses from businesses in manufacturing, the service sector, trade, and construction. Companies are asked to give their assessments of the **current business situation** and their **expectations** for the next six months. They can describe their situation as "good," "satisfactory," or "poor" and their business expectations for the next six months as "more favorable," "unchanged," or "less favorable." The **balance value** of the current business situation is the difference in the percentage shares of the responses "good" and "poor"; the balance value of expectations is the difference in the percentage shares of the responses "more favorable" and "less favorable." The **business climate** is a transformed mean of the balances of the business situation and the expectations. To calculate the **index values**, the transformed balances are all normalized to the average for the year 2015.



ifo Business Cycle Clock Germany^a

Balances adjusted for mean value, seasonally adjusted



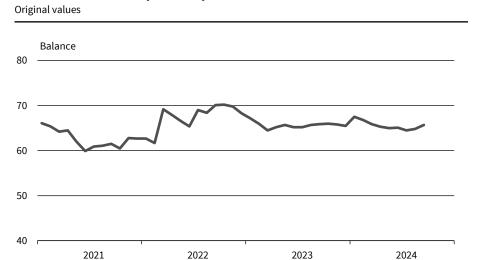
^a Manufacturing, service sector, trade, and construction. Source: ifo Business Survey, September 2024.

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The ifo Business Cycle Clock shows the cyclical relationship between the current business situation and business expectations in a four-quadrant diagram. In this diagram, economic activity – shown on a graph plotting the current situation against expectations – passes through quadrants labeled with the different phases of activity, namely recovery, boom, slowdown, and crisis; provided that the expectations indicator sufficiently precedes the current business situation indicator. If survey participants' assessments of the current business situation and their business expectations are both below average on balance, economic activity is plotted in the "crisis" quadrant. If the expectations indicator is above average (with an improving but below average business situation on balance), economic activity moves to the "recovery" quadrant. If the business situation and expectations are both above average on balance, economic activity appears in the "boom" quadrant. If, however, the expectations indicator falls below average (with a deteriorating but above average business situation on balance), economic activity slips into the "slowdown" quadrant.



ifo Business Uncertainty Germany^a

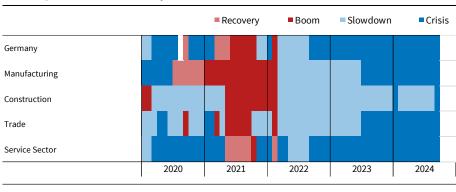


^a Manufacturing, service sector, trade, and construction. Source: ifo Business Survey, September 2024.

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The ifo Business Uncertainty measures how difficult it is for managers to predict the development of their company's business situation over the next six months. The measure is calculated based on the weighted fractions of companies that fall into the answer options "easy," "fairly easy," "fairly difficult," and "difficult" of a corresponding question in the ifo Business Survey. To this end, the answer categories are mapped onto a numerical scale with equally spaced intervals. Theoretically, the ifo Business Uncertainty can range from 0 to 100. Higher values indicate higher uncertainty: the future business situation is more difficult to predict.

Heatmap of ifo Business Survey



Source: ifo Business Survey, September 2024.

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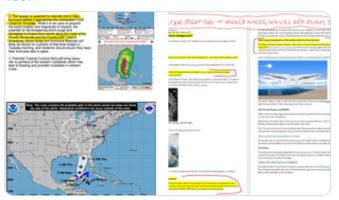
The ifo Heatmap is a compact summary of the ifo Business Cycle Clock for the individual sectors of the German economy. If the ifo Heatmap shows dark blue, then the business situation and expectations are below average and companies are in crisis. As business expectations improve, the light red recovery sets in. If the business situation and expectations are above average, companies are in a dark red boom, which is often referred to as overheating. If the light blue cooling sets in, then business expectations are deteriorating.

••

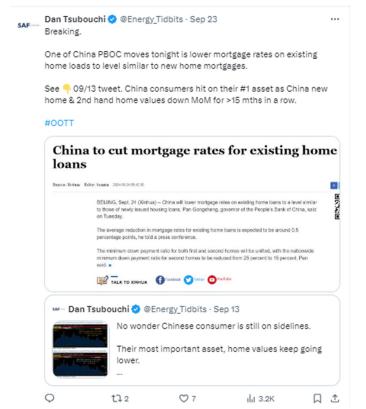
Hurricanes 101.

Why right side of a hurricane more dangerous - higher max wind speed, waves and storm surge. See ¶@HillaryAndrews @foxweather recap.

Hope Floridians can be prepared as @NHC_Atlantic forecasts a major hurricane as it approaches Florida Gulf Coast



8:12 PM · Sep 23, 2024 · 5,203 Views



"make no doubt about it, we're hundreds of bps above the neutral rate"

...

"there are , if conditions continue like this, there are a lot of cuts to come over the next 12 months. There is virtual unanimity about that."



Source: Bloomberg

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Offshore wind finally bottomed? Orsted CEO say yes.

"I have good confidence the worst is over".

"The 7.6 GW that we are building around the world, so roughly count on a GW powering a million homes. That is a lot of offshore wind"

@NipperMads to @adsteel @RomaineBostick #OOTT

"The 7.6 GW that we are building around the world, so roughly count on a GW powering a million homes. That is a lot of offshore wind." Orsted CEO Mads Nipper



SAF Group created transcript of comments by Orsted CEO Mads Nipper with Bloomberg's Alix Steele on Sept 24, 2024. https://www.bloomberg.com/hews/videos/2024-09-24/orsted-ceo-on-sustainable-energyand-al-s-power-needs-video

Items in "italics" are SAF Group created transcript.

At 0:00 min mark, Steele "You have implemented a tough turnaround; it has been a tough few years. What is the confidence level that you have that the worst for the offshore wind industry is over?"

Nipper: "I have a good confidence level that the worst is over. I mean, we are seeing a maturing supply chain, it is still a supply chain that faces bottlenecks, but it is maturing and we are seeing markets like the U.S., which literally were built from scratch, we are also seeing that soele up, and we also see generally how the 7.6 glopwarts that we are builting anound the word, so roughly count on a glopwart proving a million homes that is a lot of offshore wind and that is going much better. So, we are confident."

Prepared by SAF Group https://safgroup.ca/

Q3 tl2 ♥6 III 1.9K Д ±



@EIAgov released #Oil #Gasoline #Distillates inventory as of Sept 20. Table below compares EIA data vs @business expectations and vs @APlenergy estimates yesterday. Prior to release, WTI was \$70.60. #OOTT

(million barrels)	EIA	Expectations	API
Oil	-4.47	-1.43	-4.34
Gasoline	-1.54	0.20	-3.44
Distillates	-2.23	-1.19	-1.12
	-8.24	-2.42	-8.90
Note: Oil is commer	cial. So excludes a +1.	3 mb build in SPR for the \$	Sept 20 week
Note: Included in the	e oil data, Cushing had	a 0.12 mmb build for Sep	t 20 week
Source EIA, Bloomb	perg		
Prepared by SAF G	roup https://safgroup.	ca/news-insights/	

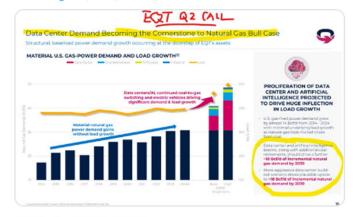
8:32 AM · Sep 25, 2024 · 4,237 Views



"Data Center Demand Becoming the Cornerstone to #NatGas Bull Case" reminds @EQTCorp @Shalennial.

"AI-related electricity demand is expected to translate to between 6 to 13 bcf/d of NatGas in the short term, Toby Rice, EQT's CEO said Tuesday" reports @naurtorious @ruthcoversIng #OOTT

bloomberg.com/news/articles/...



5:38 PM · Sep 25, 2024 · **3,537** Views

Q1 tl9 ♥25 l5 ±

•••

Common sense.

"if you are going to meet these power needs of what they need for AI, you're going to have to use natural gas"

Also can't retire a nuclear plant, won't get by PUCs "it can't, it's going to hurt the consumer too much"

David Tepper Appaloosa Mgmt to @JoeSquawk @BeckyQuick @andrewrsorkin

#OOTT #NatGas



6:36 AM · Sep 26, 2024 · 6,736 Views

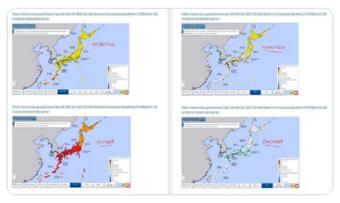


Holdback to #LNG prices.

JMA forecasts warmer than normal temps continuing thru Nov before turning to colder than normal Dec.

After last 2 warm winters, most will want to wait to see if cold will come in Dec.

#OOTT #NatGas



8:18 AM · Sep 26, 2024 · 1,194 Views

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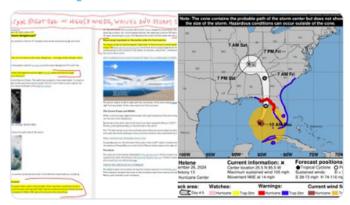
Here's why #Helene is a big threat.

Hurricanes 101. The right side of a hurricane more dangerous - higher max wind speed, waves and storm surge. See 9 @HillaryAndrews @foxweather recap.

So hurricanes on the Gulf Coast side can have way worse impact than on Atlantic side.

Hope Floridians can get to safety!

#OOTT @NHC_Atlantic



11:30 AM · Sep 26, 2024 · 813 Views



EQT to start to add back shut-in #NatGas production.

Gas storage +159 bcf YoY would have been worse if EQT, Coterra, etc hadn't shut-in production due to low prices.

EQT curtailed ~1 bcfd in spring. "We're watching to see that come back in October and November ... We will ease curtailments in October" EQT CEO Rice.

Thx @scottdisavino #OOTT reuters.com/business/energ...

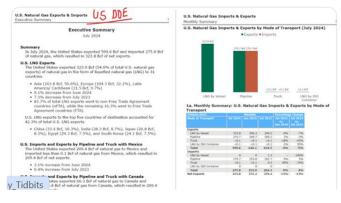
2:33 PM · Sep 26, 2024 · **1,524** Views

US #LNG exports: July 2024: 10.4 bcfd Jun 2024: 11.9 July 2023: 11.3

July was hit by Freeport down ~ 8 days re air cooler damage from Beryl & Cheniere planned maintenance.

DOE actuals are same as EIA #NatGas Monthly actuals on Mon.

#OOTT #NatGas energy.gov/sites/default/...





Hurricane Helene about to make landfall as a Cat 4 at 130 mph.

Helene is very fast moving at 23 mph so hopefully won't linger too long over an area and will help to minimize damage and flooding.

Hope everyone gets to safety!





Hurricane Helene has left 1.2 mm customers in Florida and 0.9 mm in Georgia without power.

Anyone who has been flooded knows not having power is a major issue for cleanup and repairs.

Thx @PowerOutage_us

#OOTT





Record China #Oil imports from Iran.

@Kpler data: China imports from Iran 1.79 mmbd in Sept, 1.75 mmbd in Aug. Thx @business

See \P 09/19 tweet: Matches what China reported as oil imports from Malaysia in Aug of 1.77 mmbd. OPEC MOMR, Malaysia produces 0.4 mmbd.



ICYMI.

German @ifo_Institut Business Climate Index.

"in manufacturing, the index fell to its lowest level since June 2020...the core sectors of DEU industry are struggling".

The core sectors (auto, machinery, chemical) are energy intensive & energy costs are way higher post end of cheap Russia pipeline #NatGas.

#OOTT



Best week for Waha spot #NatGas prices in months.

Mon: \$1.79 Tues: \$0.76 Wed: \$1.83 Thurs: \$0.59 Fri: \$0.17

Infers increasing volumes on new 2.5 bcfd Matterhorn Express, which was expected to take Waha positive.



...

Cdn #Oil positive.

Looks like ramp up of volumes on new 590,000 b/d TMX has, at least so far, kept WCS less WTI differentials from the normal Sept/Oct widening.

WCS less WTI diffs. 09/27/24: \$13.05 09/27/23: \$18.20

09/27/22: \$21.30

Thx @garquake for reminder.

#OOTT

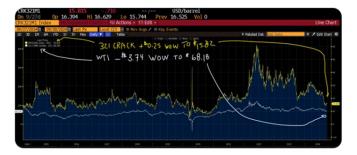


Dan Tsubouchi @Energy_Tidbits

321 crack spreads +\$0.25 WoW to still relatively low \$15.82.

WTI +\$3.74 WoW to \$68.18. Reminds WTI impacted more by global oil issues (ie. Libya oil back, Saudi maybe back) than by crack spreads.

Thx @business #OOTT

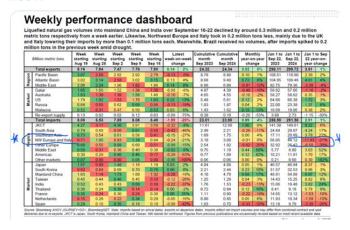


Hold back to EU #NatGas prices thru shoulder season.

Storage would be full if NW Europe hadn't cut back LNG imports in $\rm Q2/Q3$.

YTD Sept 22, NW Europe #LNG imports down ~419 bcf or ~1.6 bcf/d.

Thx @BloombergNEF LNG Trade Weekly. #OOTT





Breaking!

Israel kills Hezbollah leader Nasrallah.

IDF Halevi warns "Those who threaten the citizens of the State of Israel – we will know how to reach them – in the North, in the South, and even in more distant places".

Sounds warning other anti-Israel leaders ie. Iraq resistance, Houthis and even Iran.

Still waiting for Iran response for Israel killing Hamas leader Haniyeh in Tehran on 07/31/24.

Thx @Jerusalem_Post.

#OOTT

jpost.com/breaking-news/...

Last edited 3:57 AM \cdot Sep 28, 2024 \cdot **905** Views



Daily Europe air traffic remains stuck below pre-Covid.

7-day moving average as of:

Sept 26: -2.9% below pre-Covid

Sept 19: -2.8%

Sept 12: -3.0%

Sept 5: -2.8%

Aug 29: -3.1%

Aug 22: -2.8%

Aug 15: -2.2%

Aug 8: -1.3%

Aug 1: -1.9%

Jul 25: -2.2%

Thx @eurocontrol

#Oil #OOTT

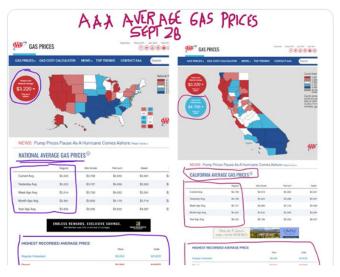




AAA National average prices +\$0.01 WoW to \$3.22 on Sept 28, -\$0.14 MoM and -\$0.62 YoY.

California \$4.70 on Sept 21, -\$0.05 WoW, +\$0.08 MoM, and -\$1.33 YoY when CA average prices were \$6.03.

Thx @AAAnews





I told you so, Cdn #Oil #NatGas will say to Liberals.

More & more Cdns recognize:

- 1. Importance of oil & gas to Cdn current (79% now vs 65% in 11/20) and future (59% now vs 41% in 11/20) economy.
- 2. Canada done a poor job at developing a long term vision for Cdn energy future. 59% now vs 43% in 2017.
- 3. 61% CAN should expand oil & gas exports to help world have more secure energy supplies.

Much more in this @niknanos @uOttawa_Energy survey.

#OOTT nanos.co/wp-content/upl...



Floating storage continues solid.

Vortexa crude #Oil floating storage +1.31 WoW to 61.49 mmb at Sept 27.

Sept 20 revised +4.44 mmb but prior 6 wks revised down by average -3.01 mmb/wk.

Last 7 wks average 63.99 mmb, only been 22 wks <70 mmb since Covid.

Thx @vortexa @business #OOTT





Hope it's just a lost in translation?

Or has Kurdistan picked a side in oil dispute & will be unified with Baghdad to get IOCs to agree to lesser terms?

Iraq's unchanged position is KRG /IOCs oil deals violate constitution and its profit share to IOCs is way too high.

INA reports Baghdad & KRG "enter as a unified party in negotiations with international oil companies operating in the region; to amend their contracts from production partnership to profit-sharing, in addition to reviewing the economic and commercial conditions.... and push towards resolving them under the umbrella of the constitution."

#OOTT



1:59 PM · Sep 28, 2024 · **1,644** Views



"Oil and gas [consumption] will peak this decade. In fact, oil is probably peaking this year" says Liberals Energy Minister Wilkinson.

Peak oil this yr is bolder call than IEA peak oil demand by 2030.

See 10:07 min mark cpac.ca/headline-polit...

#OOTT #NatGas Thx @CPAC_TV



From cpac.ca

It's Fall so that is normally leave the windows temps.

Not hot enough to drive A/C, not cold enough to crank up the furnace.

@NOAA updated 6-10 & 8-14 day temp outlook for Oct 4-12

Daily high/lows for Chicago are 11-23C, NYC 14-25C

