

Energy Tidbits

Putin Says Not Russia's Problem That Its Pipeline Natural Gas
Flowing to EU Thru Ukraine Stops on Dec 31

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<https://www.adnoc.ae/en/news-and-media/press-releases/2024/adnoc-signs-15year-06-mtpa-sales-and-purchase-agreement-with-enbw-for-ruwais-lng-project>

ADNOC Signs 15-Year, 0.6 mtpa Sales and Purchase Agreement with EnBW for Ruwais LNG Project

SPA with one of Germany's largest energy infrastructure operators converts previous Heads of Agreement into a binding agreement

Over 8 mtpa of Ruwais LNG's 9.6 mtpa production capacity is committed to international customers through long-term agreements

Agreement is ADNOC's second SPA with a German energy company for Ruwais LNG, building on the UAE-Germany Energy Security and Industry Accelerator initiative

Abu Dhabi, UAE – December 16, 2024: ADNOC announced today it has signed a third Sales and Purchase Agreement (SPA) for the lower-carbon Ruwais liquefied natural gas (LNG) project, with Germany's EnBW Energie Baden-Württemberg AG (EnBW), one of the largest operators of energy infrastructure in Germany and across Europe. The 15-year SPA for supplying 0.6 million tonnes per annum (mtpa) of LNG converts a previous Heads of Agreement between ADNOC and EnBW into a definitive agreement.

The LNG will primarily be sourced from the Ruwais LNG project, which is currently under development in Al Ruwais Industrial City, Abu Dhabi. Deliveries are expected to start in 2028 upon commencement of its commercial operations. To date, over 8 mtpa of the project's 9.6 mtpa production capacity has been committed to international customers through long-term agreements.

The agreement with EnBW is ADNOC's second SPA with a German company for Ruwais LNG, following a 15-year, 1 mtpa agreement signed in November with SEFE Marketing and Trading Singapore Pte Ltd., a subsidiary of Germany's SEFE Securing Energy for Europe GmbH.

Fatema Al Nuaimi, ADNOC Executive Vice President, Downstream Business Management, said: "We are very pleased to partner with EnBW, one of the largest energy supply companies in Germany, in our second Sales and Purchase Agreement to the country from the Ruwais LNG project. This partnership underscores ADNOC's dedication to fostering sustainable and strategic energy collaborations. By supplying lower-carbon LNG to EnBW, we are not only enhancing our partner's energy security but also contributing to decarbonization efforts, reaffirming ADNOC's position as a trusted partner in the evolving energy landscape."

The agreement builds on the UAE-Germany Energy Security and Industry Accelerator (ESIA) agreement, signed by the UAE and Germany in 2022, which aims to advance cooperation in energy security, decarbonization and lower-carbon fuels. The agreement also further advances the Joint Declaration of Intent for Sustainable Energy Cooperation between the Ministry of Industry and Advanced Technology of the UAE and the German state of Baden-Württemberg signed in February 2024.

Peter Heydecker, EnBW Board Member for Sustainable Generation Infrastructure, said: "We are very pleased to establish a long-term LNG contract with ADNOC. Finalizing this contract is a significant step in furthering our relationship and expanding our LNG portfolio. We will continue to work with our esteemed

partner ADNOC to develop other opportunities in LNG and adjacent businesses and look forward to a mutually beneficial long-term relationship and joint business success.”

ADNOC Gas announced in November 2024 that it expects to acquire ADNOC’s 60% stake in the Ruwais LNG project at cost, estimated at around \$5 billion, in the second half of 2028. Upon completion, the project, comprising two 4.8 mtpa liquefaction trains with a combined capacity of 9.6 mtpa, will more than double ADNOC Gas’ existing operated LNG production capacity to around 15 mtpa.



Energy Transfer Signs Agreement to Supply Chevron 2.0 Million Tonnes of LNG Per Annum From Its Lake Charles LNG Export Facility

December 19, 2024 at 4:02 PM EST

DALLAS--(BUSINESS WIRE)--Dec. 19, 2024-- **Energy Transfer LP (NYSE: ET)** today announced its subsidiary, Energy Transfer LNG Export, LLC (Energy Transfer LNG), has entered into a 20-year LNG Sale and Purchase Agreement (SPA) with Chevron U.S.A. Inc. (Chevron) related to its Lake Charles LNG project. Under the SPA, Energy Transfer LNG will supply 2.0 million tonnes of LNG per annum (mtpa) to Chevron. The LNG will be supplied on a free-on-board (FOB) basis and the purchase price will consist of a fixed liquefaction charge and a gas supply component indexed to the Henry Hub benchmark. The obligations of Energy Transfer LNG under the SPA are subject to Energy Transfer LNG taking a final investment decision (FID) as well as the satisfaction of other conditions precedent.

"We are pleased that one of the most prominent LNG industry participants has selected Lake Charles LNG as a supplier," said Tom Mason, President of Energy Transfer LNG. "We believe that Lake Charles is the most compelling LNG project on the Gulf Coast and we continue to make significant progress towards full commercialization of this project."

"Chevron believes LNG plays an important role in meeting the world's need for energy while helping advance lower carbon ambitions," said Freeman Shaheen, President, Chevron Global Gas. "This new long-term agreement demonstrates our focus on increasing access to affordable, reliable, ever-cleaner energy supplies to meet growing global demand."

The Lake Charles LNG export facility would be constructed on the existing brownfield regasification facility site and will capitalize on four existing LNG storage tanks, two deep water berths and other LNG infrastructure. Lake Charles LNG would also benefit from its direct connection to Energy Transfer's existing Trunkline pipeline system that in turn provides connections to multiple intrastate and interstate pipelines. These pipelines allow access to multiple natural gas producing basins, including the Haynesville, the Permian and the Marcellus Shale. Energy Transfer is one of the largest and most diversified midstream energy companies in North America, with a strategic footprint in all of the major U.S. production basins.

About Energy Transfer

Energy Transfer LP (NYSE: ET) owns and operates one of the largest and most diversified portfolios of energy assets in the United States, with more than 130,000 miles of pipeline and associated energy infrastructure. Energy Transfer's strategic network spans 44 states with assets in all of the major U.S. production basins. Energy Transfer is a publicly traded limited partnership with core operations that include complementary natural gas midstream, intrastate and interstate transportation and storage assets; crude oil, natural gas liquids ("NGL") and refined product transportation and terminaling assets; and NGL fractionation. Energy Transfer also owns Lake Charles LNG Company, as well as the general partner interests, the incentive distribution rights and approximately 21% of the outstanding common units of Sunoco LP (NYSE: SUN), and the general partner interests and approximately 39% of the outstanding common units of USA Compression Partners, LP (NYSE: USAC). For more information, visit the Energy Transfer LP website at www.energytransfer.com.

Forward-Looking Statements

This news release may include certain statements concerning expectations for the future that are forward-looking statements as defined by federal law. Such forward-looking statements are subject to a variety of known and unknown risks, uncertainties, and other factors that are difficult to predict and many of which are beyond management's control, including the following factors: securing long-term contractual arrangements for the offtake on terms sufficient to support the financial viability of the Lake Charles LNG project; global supply, demand and price fluctuations of oil, gas and petrochemicals, including LNG; costs to construct the liquefaction facility, the terms and conditions of the financing for the construction of the liquefaction facility, the cost of the natural gas supply, the costs to transport natural gas to the liquefaction facility, the costs to operate the liquefaction facility and the costs to transport LNG from the liquefaction facility to customers in foreign markets (particularly Europe and Asia); global economic conditions; competition in the industries in which Energy Transfer operates; operational risk and hazards common in the oil, gas and petrochemicals industries; the cyclical nature of the oil, gas and petrochemicals industries; regulatory approval of the Lake Charles LNG project, some of which may be subject to further conditions, review and/or revocation; risks related to operating in a regulated industry and changes to oil, gas, environmental or other regulations that impact the industries in which Energy Transfer operates; legal proceedings and other disputes; and other risks and uncertainties that could cause actual results to differ from the forward-looking statements in this press release. An extensive list of factors that can affect future results are discussed in the Partnership's Annual Report on Form 10-K and other documents filed from time to time with the Securities and Exchange Commission. The Partnership undertakes no obligation to update or revise any forward-looking statement to reflect new information or events.

The information contained in this press release is available on our website at www.energytransfer.com.

View source version on businesswire.com: <https://www.businesswire.com/news/home/20241219500228/en/>

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<https://australia.chevron.com/news/2024/chevron-and-alcoa-sign-new-long-term-wa-gas-supply-agreement>

Chevron and Alcoa sign new long-term WA gas supply agreement

PERTH, Western Australia, 17 December 2024 – Chevron Australia Pty Ltd (Chevron) has signed a new long-term sale and purchase agreement with Alcoa of Australia Limited (Alcoa) for the supply of natural gas from Chevron’s Western Australian (WA) gas portfolio.

Commencing 1 January 2028, Chevron will supply Alcoa with a total of 130 petajoules of gas over a 10-year term from across the company’s equity interests in the Chevron-operated Gorgon and Wheatstone facilities, and the North West Shelf Venture.

Gorgon and Wheatstone’s domestic gas facilities have a combined capacity to produce 530 terajoules of gas per day for the WA market, which is about half of the state’s gas supply, while Chevron retains a one-sixth interest in the North West Shelf Venture.

Chevron Australia managing director Mark Hatfield said, “As one of WA’s largest domestic gas producers, we’re proud to continue our relationship with Alcoa’s WA operations which we’ve supplied from our portfolio since 2020.”

“Our significant investment in WA’s natural gas sector, including our share of the more than A\$80 billion invested in Gorgon and Wheatstone, has powered the development of WA’s resources industry and continues to enable the long-term supply of reliable energy to the state.”

“From fueling high heat manufacturing processes, such as in alumina, to providing a flexible energy source for electricity generation, reliable gas supply plays a crucial role in supporting WA’s energy security and economic development.”

<https://www.ft.com/content/f7a34e3e-bce9-4db9-ac49-a092f382c526>

Russia-China gas pipeline deal stalls over Beijing's price demands

Power of Siberia 2 project would offer lifeline to exporter Gazprom as Moscow's dependence on its neighbour grows



A deal on the pipeline was one of Russian President Vladimir Putin's top requests for Chinese leader Xi Jinping when they met last month, according to people familiar with the issue © Alexandr Demyanchuk/Sputnik/Pool/AP

Max Seddon in Riga, Anastasia Stognei in Tbilisi, Henry Foy in Brussels and Joe Leahy in Beijing YESTERDAY

Russia's attempts to conclude a major gas pipeline deal with China have run aground over what Moscow sees as Beijing's unreasonable demands on price and supply levels, according to three people familiar with the matter.

Beijing's tough stance on the Power of Siberia 2 pipeline underscores how Russia's invasion of Ukraine has left President Vladimir Putin increasingly dependent on Chinese leader Xi Jinping for economic support.

The people familiar with the matter said China had asked to pay close to Russia's heavily subsidised domestic prices and would only commit to buying a small fraction of the pipeline's planned annual capacity of 50bn cubic metres of gas.

Approval for the pipeline would transform the dire fortunes of Gazprom, Russia's state gas export monopoly, by linking the Chinese market to gasfields in western Russia that once supplied Europe.

Gazprom suffered a loss of Rbs629bn (\$6.9bn) last year, its biggest in at least a quarter of a century, amid plummeting gas sales to Europe, which has had greater success than expected in diversifying away from Russian energy.

While Russia has insisted it is confident of agreement on Power of Siberia 2 "in the near future", two of the people said the impasse was the reason Alexei Miller, Gazprom's chief executive, had not joined Putin on the Russian leader's state visit to Beijing last month.

Miller, who was instead on a trip to Iran, would have been essential for any serious negotiations with China and his absence was "highly symbolic", said Tatiana Mitrova, a research fellow at Columbia University's Center on Global Energy Policy.



A deal on the pipeline was one of three main requests Putin made to Xi when they met, according to the people familiar with the matter, along with more Chinese bank activity in Russia and for China to snub a peace conference being organised by Ukraine this month.

China announced on Friday it would skip Ukraine's summit in Switzerland. Two of the people said Beijing and Moscow were discussing ringfencing one or more banks that would finance trade in components for Russia's defence industry — all but certainly incurring US sanctions that would cut any such bank out of the broader global financial system.

An agreement on the pipeline, however, remains distant, while the proposed co-operation with Chinese banks remains at a far smaller scale than Russia had requested, the people added.

Dmitry Peskov, Putin's spokesman, said Russia and China were still in talks on the pipeline.

"It's totally normal for each side to defend their own interests. Negotiations will continue, because the leaders of both countries have the political will for it, and commercial issues will continue to be worked out, and we have no doubt all the necessary agreements will be made," Peskov told reporters on Monday.

"As far as aspects of ongoing commercial negotiations go, they are, of course, not public," Peskov added. Gazprom declined to comment.

Asked about the gas talks, the Chinese foreign ministry said only that "the presidents of China and Russia agreed to look for areas where our interests converge . . . and enable each other's success".

China would "work with Russia to deliver on important common understandings reached between our two leaders and deepen our all-round cooperation [for] mutual benefit", the ministry said.

Russia's failure to secure the deal underscores how the war in Ukraine has made China the senior partner in the countries' relationship, according to Alexander Gabuev, director of the Carnegie Russia Eurasia Center in Berlin.

"China could need Russian gas strategically as a secure source of supply not based on maritime routes that would be affected in case of a maritime conflict around Taiwan or the South China Sea," Gabuev said. "But to make that worthwhile, China really needs a very cheap price and flexible obligations."

China's demand for imported gas is expected to reach about 250 bcm by 2030, up from less than 170 bcm in 2023, according to a paper published by Columbia's CGEP in May.

That paper said the 2030 level of demand could still be largely or entirely met through existing contracts for pipeline supply and for liquefied natural gas. However, by 2040, the gap between China's import demand and existing commitments would reach 150 bcm, it said.

Russia's lack of an alternative overland route for its gas exports means Gazprom would probably have to accept China's conditions, Gabuev said.

"China believes time's on its side. It has room to wait to squeeze the best conditions out of the Russians and wait for attention on the China-Russia relationship to move elsewhere," he said. "The pipeline can be built rather quickly, since the gasfields are already developed. Ultimately the Russians don't have any other option to market this gas."

Before the war in Ukraine, Gazprom relied on selling gas to Europe at high prices in order to subsidise Russia's domestic market.

China already pays Russia less for gas than to its other suppliers, with an average price of \$4.4 per million British thermal units, compared with \$10 for Myanmar and \$5 for Uzbekistan, the CGEP researchers calculated from 2019-21 customs data.

During the same years Russia exported gas to Europe at about \$10 per million Btu, according to data published by the Russian central bank.

Gazprom's exports to Europe fell to 22 bcm in 2023 from an average 230 bcm a year in the decade before the full-scale invasion of Ukraine. These are likely to dwindle further once a trans-shipment agreement with Ukraine expires at the end of this year.

Failure to agree increased supplies to China would be a hefty further blow. An unreleased report by a major Russian bank, seen by the Financial Times, recently excluded Power of Siberia 2 from its baseline forecast for Gazprom. That reduced the company's expected profit for 2029 — when the bank expected the project to launch — by almost 15 per cent.

China did not immediately respond to a request for comment.

This article has been amended since initial publication to reflect that the Ukraine peace summit is taking place at the Bürgenstock resort in Switzerland, not Geneva



North Dakota Department of Mineral Resources December 2024 Director’s Cut and Release October 2024 Production Numbers

Oil Production Numbers

October	36,517,737 barrels	= 1,177,992 barrels/day	-1.8%	RF +7%
September	35,994,829 barrels	= 1,199,828 barrels/day (final)		RF+9%
	1,519,037	all-time high Nov 2019		
	1,148,253 barrels/day	= 97% from Bakken and Three Forks		
	29,739 barrels/day	= 3% from Legacy Pools		

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

Crude Price (\$barrel)	ND Light Sweet	WTI	ND Market
October	65.31	71.99	65.00 RF -7%
September	62.58	70.24	63.38 RF -9.5%
Today	62.75	70.94	66.84 RF -5% est
All-time high (6/2008)	125.62	134.02	126.75
Revenue Forecast			70.00

Gas Production and Capture

October	105,969,743 MCF	= 3,418,379 MCF/Day	-4.1%
94% Capture	100,022,071 MCF	= 3,226,518 MCF/Day	
September	106,901,674 MCF	= 3,563,389 MCF/Day	+1.0% (Final)
95% Capture	101,227,879 MCF	= 3,374,263 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

September	100	
October	111	
November	78	All-time high 370 in 10/2012

Rig Count

September	38	
October	39	
November	37	
Today	37	All-time high 218 on 5/29/2012
Federal Surface	2	

Other Relevant Rig Counts

United States	589
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States

TX	284
NM	104
OK	43
ND	37

Basins

Permian	304
Eagle Ford/South Texas	46
Williston	≈40
Marcelus/Utica (Dry Gas)	35

Waiting on Completions

August	383
September	376
October	331

Inactive

August	1,834
September	1,903
October	1,796

Completed

September	58
October	95
November	98 (Preliminary)

Producing

September	19,200	
October	19,334	NEW All-time high 19,334
	(Preliminary)	October/2024
	17,161 wells	89% are now unconventional
		Bakken/Three Forks Wells
	2,173 wells	11% produced from legacy
		conventional pools

IJA 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	11
August	0	11
September	0	7
October	0	3
Total	73	82

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

Fort Berthold Reservation Activity

	Total	Fee Land	Trust Land
Oil Production (barrels/day)	176,880	68,195	108,685
Drilling Rigs	1	0	1
Active Wells	2,950	702	2,248
Waiting on Completion	2		
Approved Drilling Permits	128	7	121

Comments:

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

There are 14 frac crews currently active.

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

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

The state-wide gas flared volume from September to October increased 2.7 MMCFD to 191.9 MMCF per day, the statewide gas capture dropped 1% to 94% while Bakken gas capture remained constant at 95%. The historical high flared percent was 36% in 09/2011

Gas capture details are as follows:

Statewide	94%
Statewide Bakken	95%
Non-FBIR Bakken	94%
FBIR Bakken	97%
Trust FBIR Bakken	97%
Fee FBIR	95%
Fertile Valley	68%
Burg	71%
Hanks	37%
Bar Butte	41%
Zahl	48%
Green Lake	91%
Little Muddy	74%
Round Prairie	99%
Painted Woods	72%
Ft. Buford	87%
Lake Trenton	94%
Sixmile	97%
Buford	89%
Briar Creek	42%
Assiniboine	99%
Lone Butte	48%
Ranch Creek	78%
Twin Buttes	44%
Charlson	91%

The Commission has established the following gas capture goals:

74% October 1, 2014 through December 31, 2014

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

DECEMBER 2024 PRODUCTION & TRANSPORTATION

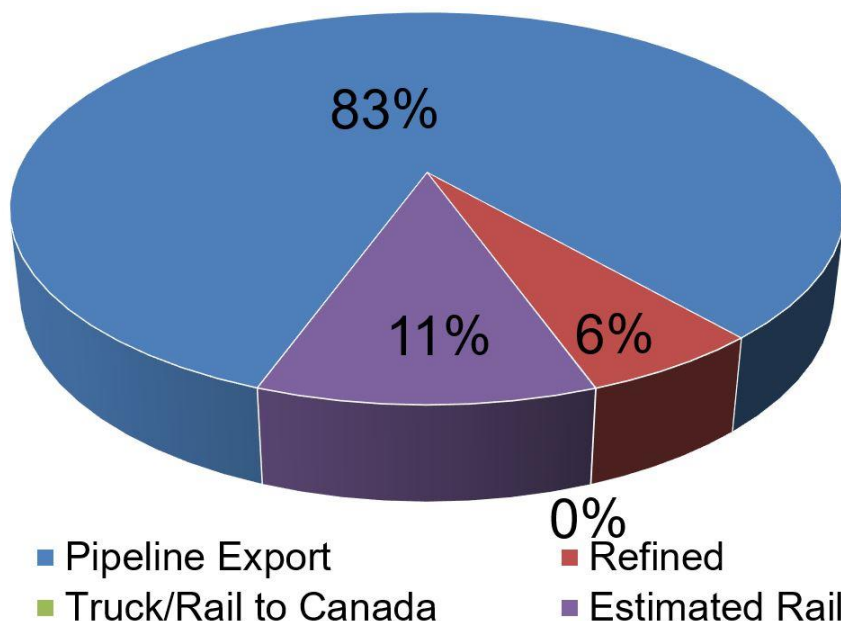
North Dakota Oil Production

Month	Monthly Total, BBL	Average, BOPD
Sep. 2024 - Final	35,994,829	1,199,828
Oct. 2024 - Prelim.	36,517,737	1,177,992

North Dakota Natural Gas Production

Month	Monthly Total, MCF	Average, MCFD
Sep. 2024 - Final	106,901,674	3,563,389
Oct. 2024 - Prelim.	105,969,743	3,418,379

Estimated Williston Basin Oil Transportation, Oct. 2024



CURRENT DRILLING ACTIVITY:

NORTH DAKOTA¹

37 Rigs

EASTERN MONTANA²

1 Rigs

SOUTH DAKOTA²

0 Rigs

SOURCE (DEC 18, 2024):

1. ND Oil & Gas Division
2. Baker Hughes

PRICES:

Crude (WTI): \$71.20

Crude (Brent): \$74.03

NYMEX Gas: \$3.42

SOURCE: BLOOMBERG
(DEC 18, 2024 12PM EST)

GAS STATS*

95% CAPTURED & SOLD

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

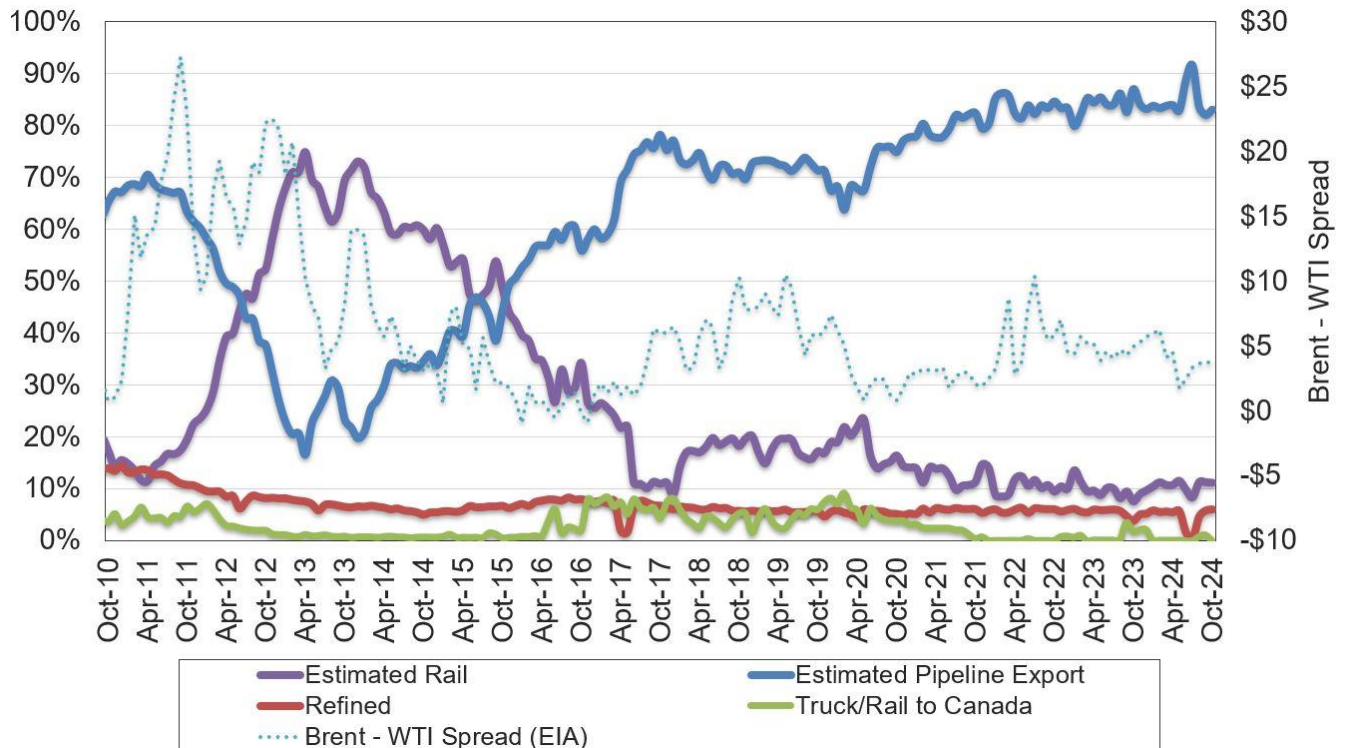
1% FLARED FROM WELL
WITH ZERO SALES

*OCT 2024 NON-CONF DATA

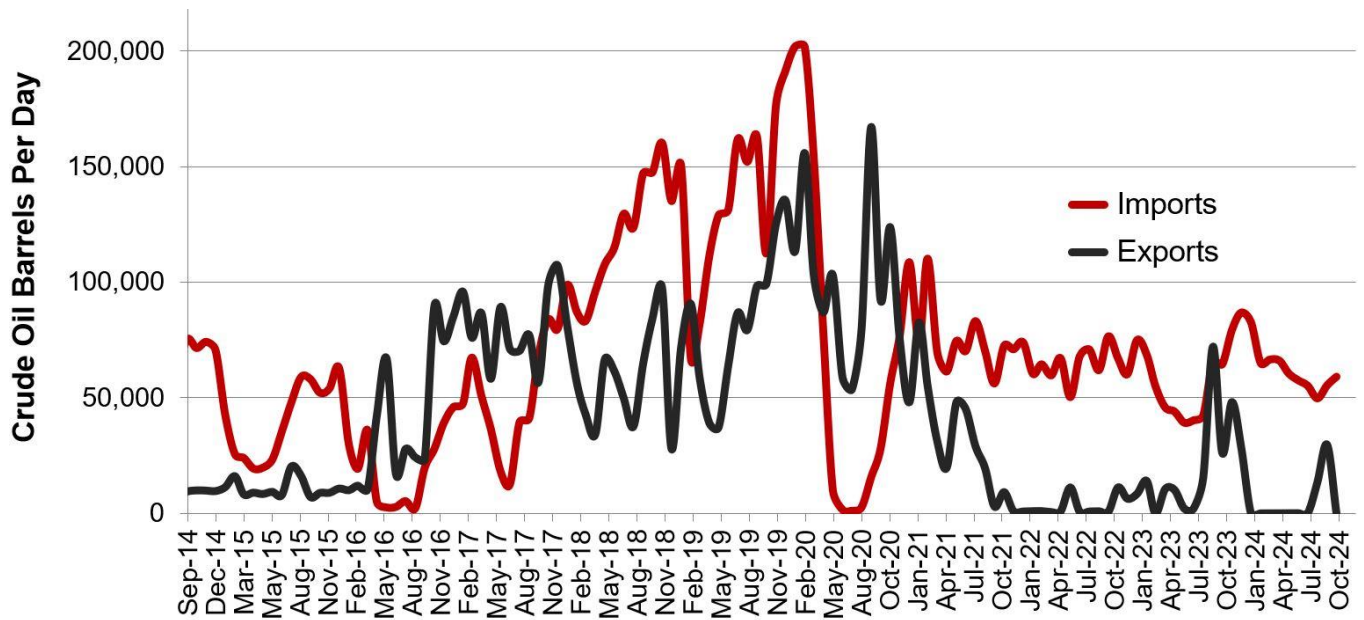
Estimated North Dakota Rail Export Volumes



Estimated Williston Basin Oil Transportation

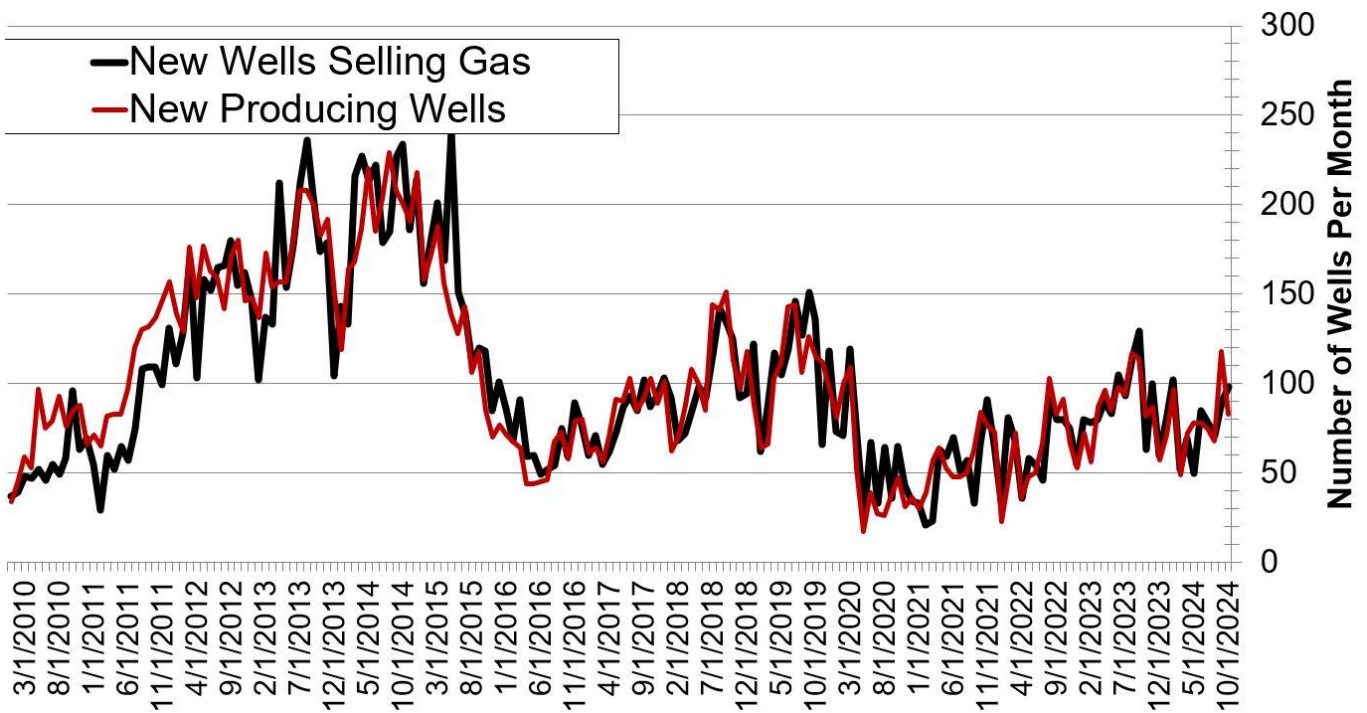


Williston Basin Truck/Rail Imports and Exports with Canada



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	61,336	2,560	1,204,149
June	1,174,603	59,745	2,275	1,236,623
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	62,893	2,504	1,355,753
October	1,255,517	62,703	2,452	1,320,671
November	1,279,103	63,135	2,448	1,344,687
December	1,275,004	63,303	2,496	1,340,803

2024

MONTH	ND	EASTERN MT*	SD	TOTAL
January	1,106,525	59,255	2,312	1,168,091
February	1,256,121	66,329	2,412	1,324,862
March	1,232,664	70,662	2,590	1,305,916
April	1,244,237	72,265	2,430	1,318,932
May	1,199,610	72,543	2,349	1,274,502
June	1,187,289	71,554	2,370	1,261,213
July	1,169,499	69,237	2,329	1,241,065
August	1,179,728	75,350	2,349	1,257,427
September	1,199,828	64,078	2,528	1,266,434
October	1,177,992	72,229		
November				
December				

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



The Mainline pipeline system

Critical energy infrastructure ensures safe and reliable energy supply for North American consumers.

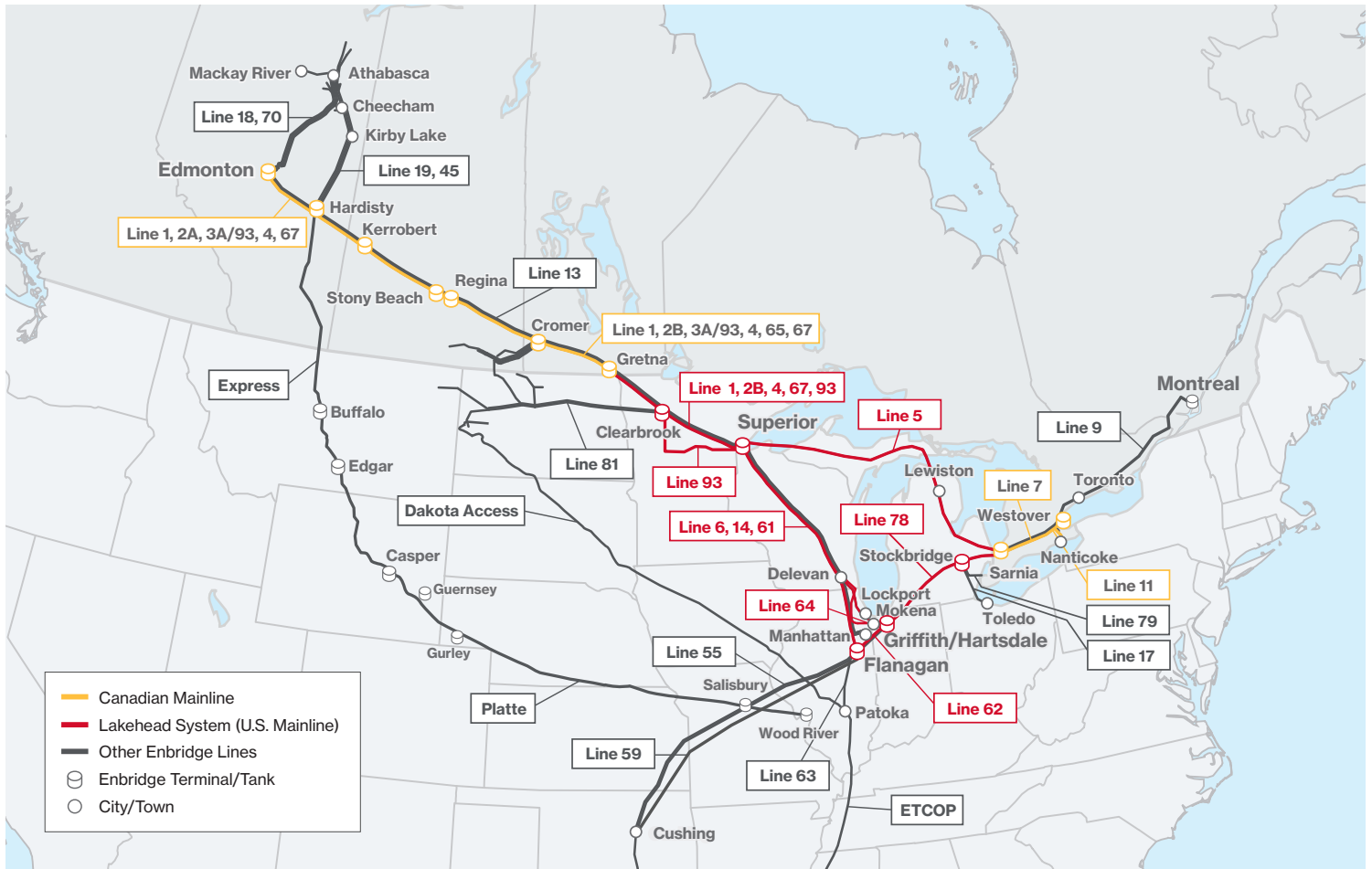
With more than 13,800 kilometers (nearly 8,600 miles) of active pipe, Enbridge's Mainline pipeline network has the capacity to transport 3 million barrels a day of light, medium and heavy oil from Alberta to the U.S. Midwest and Eastern Canada.

This sophisticated pipeline infrastructure network carries a variety of crude oil types, including production from the Canadian oil sands and natural gas liquids, to refineries across North America. The Mainline is Canada's largest oil transportation system and plays a critical role in providing safe and reliable energy supply for North American consumers.

Enbridge's Mainline network includes the Canadian Mainline system, which includes several pipelines running from Edmonton to the Canada-U.S. border at Gretna, Manitoba, and the Lakehead System or U.S. Mainline, which carries on to Clearbrook, MN and Superior, WI,

and delivers crude to markets in Minnesota, northern Illinois, Indiana, Ohio, Michigan and southern Ontario. Other Enbridge market access pipelines serve markets in the U.S. Gulf Coast, Oklahoma, southern Illinois, and Quebec.

The first pipeline in the Mainline network, Line 1, connected Edmonton to Superior and was built in 1950, in the wake of the Leduc, Alberta oil discovery that signaled the birth of the modern Canadian industry. Since then, numerous additional lines have been built to meet consumer demand and rigorously maintained to ensure the continued safe operational reliability of the system.



Connecting key basins and leading markets

In all the years of change and growth, one certainty has remained: delivering safe and reliable solutions for our customers is the foundation of Enbridge's business.

Enbridge moves 30% of the crude oil produced in North America. We also account for 65% of all U.S.-bound Canadian oil exports, 40% of U.S. oil imports, and about 25% of North American oil exports.

Enbridge's liquids pipeline network connects the continent's key supply basins with its leading refinery markets. In fact, we are connected to 75% of North America's refining capacity overall.

Our network is also unparalleled for its flexibility, with multiple receipt and delivery points across the United States and Canada. The Enbridge system is a complex web of energy infrastructure – with more than 20 major terminals, 200 tanks, 36 million barrels of operational tankage, 60 million barrels of contract storage capacity and 600 pump units.

Operating the integrated Enbridge network requires seamless coordination and collaboration across our many teams. Our segregated batching system allows us to simultaneously transport multiple grades and commodity types while maintaining strict standards for safety and efficiency.

With more than 20 receipt points and 30 delivery points across the network, we're well suited to move light, medium and heavy oil, as well as NGLs and refined products. Our system's high utilization rate reflects Enbridge's commitment to maximizing throughput via system optimization.



Preface

The Norwegian Offshore Directorate's primary objective is to contribute to the greatest possible values for society from the oil and gas activities through efficient and prudent resource management, where due consideration is given to health, the environment, safety, as well as other users of the ocean.

The Norwegian Petroleum Directorate has had responsibility of all of this for more than 50 years. Today's world is vastly different from where we started out. When we changed our name to the Norwegian Offshore Directorate on 1 January 2024 it was, in part, a reflection of the new endeavours and challenges we have taken on, not least those related to CO2 storage and seabed minerals.

Let's focus on the future. The vast resources we still have on the NCS will help supply the energy the world needs in the years to come. In fact, Norwegian oil and gas can be a key factor in addressing very real challenges, such as secure and stable energy for Europe. At the same time, interesting new concepts such as seabed minerals and CO2 storage could possibly be developed into profitable new industries, creating enormous value and bringing important contributions to the energy transition.

A long-term perspective is one of the essential building blocks in our resource management. This report illustrates opportunities, and outlines what's needed to make sure our shared resources continue to generate value for the broader society. We need to be aware of the significant uncertainty linked to long-term value creation and ongoing development. These are broad considerations in every sense of the word – the geopolitical situation, climate policy in the EU and worldwide, developments in the oil and gas markets and in more concrete terms, evolving technology and overall costs.

Keeping all of this in mind, our long-term assessments need to reflect this uncertainty, while standing up to scrutiny in a rapidly changing world.

Our guiding objective is to promote good choices as we stake out a course to create more value in the future. We hope this report can facilitate better dialogue, increase understanding of both challenges and opportunities on the NCS, and can thereby unlock the best path forward. Working together, for the benefit of all.



Kjersti Dahle
Director technology, analyses and coexistence

It is with great sadness that we note the passing of two of our colleagues over the past year, Dag Helliksen and Kirsti Veggeland. We want to honour their legacy by dedicating this report to them.

Summary

However, realisation of these resources requires an ambitious path that will need careful consideration and hard work. Forecasts point to an expected decline in overall production on the NCS after 2025. Smart exploration and robust investments will be needed to curb this decline. If investments falter, the stage will be set for a rapid dismantling of our petroleum sector.

Extraction of seabed minerals, CO2 storage and offshore wind could become profitable new industries; assuming they prove themselves cost-effective, and that they can stand up to competition with alternatives. These new industries are also well-suited to reinforce and benefit from already established value chains and the many lessons already learnt.

Oil and gas going forward to 2050

The Norwegian Offshore Directorate seeks to provide data and analyses to support decision making for developing the NCS. The preparation and development of alternative scenarios for total oil and gas production up to 2050 is a key part of these efforts. All three scenarios presented here do indeed indicate production decline, but with very different trajectories.

What this production decline entails will ultimately come down to a number of factors including how much exploration is undertaken and how quickly, as well as the pace of technological progress and development. It's worth noting that this generally accepted production decline is in line with the objectives of the Paris Agreement.

In the basic scenario multiple discoveries are made and brought on stream, accompanied by investments aimed at increasing recovery from existing fields. Despite this, resource growth will not be sufficient to offset the overall gradual decline, due to diminishing production from the major, mature fields.

In contrast, the high scenario will mean vigorous exploration, many discoveries, rapid technological development and eager investors willing to take a chance on the NCS, bolster production and thus help mitigate shrinking government revenues up to 2050.

Finally, a look at the low scenario reveals sluggish exploration activity and investment, thus leading to rapid dismantling of the petroleum sector and the inevitable significant drop in revenue for the government.

Substantial resources still in the ground

The NCS still contains large undiscovered oil and gas resources. To secure our objective to maximise the value of the resources on the shelf, the resources first need to be found. Finding these resources will mean more exploration, both in more frontier areas and close to the extensive infrastructure already in place.

There are interesting opportunities when it comes to undiscovered resources, both in familiar and less-explored areas. More extensive and detailed information, better data coverage, new work methods and pioneering technology open the door for fresh approaches in exploration, which could result in more profitable discoveries in the time ahead.

The ability to consistently incorporate new learning and the will to seek new knowledge and develop new technology are also important contributors that can enable us to unlock the values in challenging reservoirs, and also in smaller discoveries. And development of advanced methods to improve recovery from existing fields represent a very significant upside potential.

Profitable exploration

There is no question that exploration is a profitable activity. The Norwegian Offshore Directorate conducted an analysis of exploration activity over the past 20 years which confirmed that exploration for oil and gas on the NCS helps deliver incredible value for the broader community.

In concrete terms, we're talking about more than 2000 billion Norwegian kroner (net present value). In fact, discoveries have generated value amounting to more than three times the costs devoted to exploration during this period.

Discoveries that have resulted in actual production have already offset total costs for all exploration investments in this period. The current track record shows a respectable 50 of 190 discoveries achieving development and production. That leaves around three-quarters of the discovered resources still waiting. The investments already made will continue to generate revenue as more discoveries come on stream.

Another takeaway from the analysis is that, while larger discoveries contribute most to value creation, a combination of many small discoveries can also deliver very substantial value across the board.

Robust activity

A large number of PDOs (plans for development and operation) were submitted to the Ministry of Energy in 2022, all of which secured approval during the course of 2023. The spike in PDO submissions can mainly be attributed to the temporary changes in petroleum taxation introduced in 2020.

These changes have helped facilitate more developments, paving the way for a swifter path from planning to production. The Directorate's analysis confirms that this has had a substantial positive impact on value creation.

Increased gas export capacity from the Barents Sea

The Norwegian Offshore Directorate's projections indicate that nearly two-thirds of all undiscovered resources are in the Barents Sea. The challenge here is that, without a firmer commitment to increase gas export capacity, these gas resources and values could remain locked in the subsurface for quite some time.

Designing and building more extensive infrastructure in and around this area is a prerequisite for developing oil and gas resources already proven. An increase in gas export capacity would also mean incentives for further gas exploration. There are a number of existing opportunities in the Barents Sea worthy of more detailed study.

Foundation for long-term production

What are Norway's advantages? Vast remaining resources, well-developed infrastructure, low operating costs and stable, practical overall framework conditions. This tried and tested model suggests that Norway has what it takes to continue in its role as a competitive producer and exporter of oil and gas for the foreseeable future.

But there's more. Huge volumes of CO₂ resulting from power generation and industrial activity in Norway and Europe can be stored in the subsurface on the NCS. This presents a range of opportunities which are generating substantial interest and activity.

The Norwegian Offshore Directorate has also mapped significant mineral resources on the seabed which could contribute to the global supply of critical minerals. The first licensing round is expected to open in 2024. Time will tell whether this could prove to be an important new industry that can create value for Norway as a whole.

Background

In this chapter:

- Uncertain global landscape
- The world needs oil and gas
- The Norwegian continental shelf is competitive
- Need for considerable investments moving forward
- New industries on the shelf

The Norwegian continental shelf (NCS) has supplied Europe with oil and natural gas for more than 50 years. The efforts invested on the NCS have brought secure and stable energy to Europe, while simultaneously providing Norway with vast revenues. Norway is currently the largest producer of oil and gas in Europe.

Uncertain global landscape

The global population, as well as business and industry, need energy to function and to reach the UN's Sustainable Development Goals(1). Uninterrupted access to sufficient energy at acceptable prices is a prerequisite for sustainable economic progress and social welfare development. Procuring enough energy for a growing global population poses however a significant challenge.

With the exception of brief periods during economic crises, global energy consumption has increased year-on-year. Particularly rapid energy consumption spikes have been observed in important regions of the global economy during periods of high economic growth. Whereas developing countries are especially vulnerable in terms of underlying energy needs. Their growing populations need energy to meet basic needs and achieve their desire for a better life and higher standard of living.

Significant and rapid emission cuts, in line with the goals of the Paris Agreement, will require an energy transition involving extensive changes in global energy supply. Among other things, this includes energy efficiency measures, more development of renewable energy alongside new low-emission solutions such as carbon capture and storage (CCS). The energy and climate challenges the world is facing will need a range of simultaneous solutions.

Coal, oil and gas dominate the current, complex global energy system. This dependence leads to substantial greenhouse gas emissions, which have serious and irreversible consequences.

These energy sources have consistently accounted for around 80 per cent of the overall energy supply. More prevalent use of new energy sources has made significant additional contributions to existing sources, a factor which has been crucial in addressing rising energy needs. Furthermore, there is still extensive use of traditional biomass, with the associated challenges this brings for many low-income countries.

It will be challenging to implement the necessary transition of global energy systems quickly and the pace is uncertain. An energy system that is consistent with the goals of the Paris Agreement will however be entirely different from the system in place today. Renewable energy will be an important part of the solution, but as of today, it is difficult to predict which combination of technologies and solutions will prevail and succeed. Particularly when other societal considerations are also taken into account. The uncertainty surrounding future developments has therefore a direct impact on the need for the different energy sources.

Both commercial and political reasons have led various business sectors in the West to limit their investments in fossil energy, which to a lesser extent, are also being seen in other parts of the world. Many western countries have introduced measures to improve their energy security in the wake of Russia's invasion of Ukraine. At the same time, several major oil companies have tweaked their business strategies to reflect a more balanced split between oil and gas activities on one side and renewable energy on the other.

While European gas prices so far in 2024 remain far lower than the record prices in 2022 and the last half of 2021, prices are still high in a historical and global perspective. In Europe, the lapse of Russian gas deliveries has led to a significant increase in imports of liquefied natural gas (LNG). LNG

represents a link, both physically and in terms of price, between the gas markets in Asia, Europe and the US.

The global balance and competition in the LNG market is one of the most important drivers behind the evolution of European gas prices. Developing countries that import LNG are most vulnerable to the impact of high gas prices, but even in Europe, this is a challenging price level for households, businesses and energy-intensive industry.

The world needs oil and gas

Oil and gas accounted for about 55 per cent of total global primary energy consumption in 2023(2). According to the International Energy Agency (IEA) and other analyst communities, there will still be a need for oil and gas in 2050, see figure 3.1.

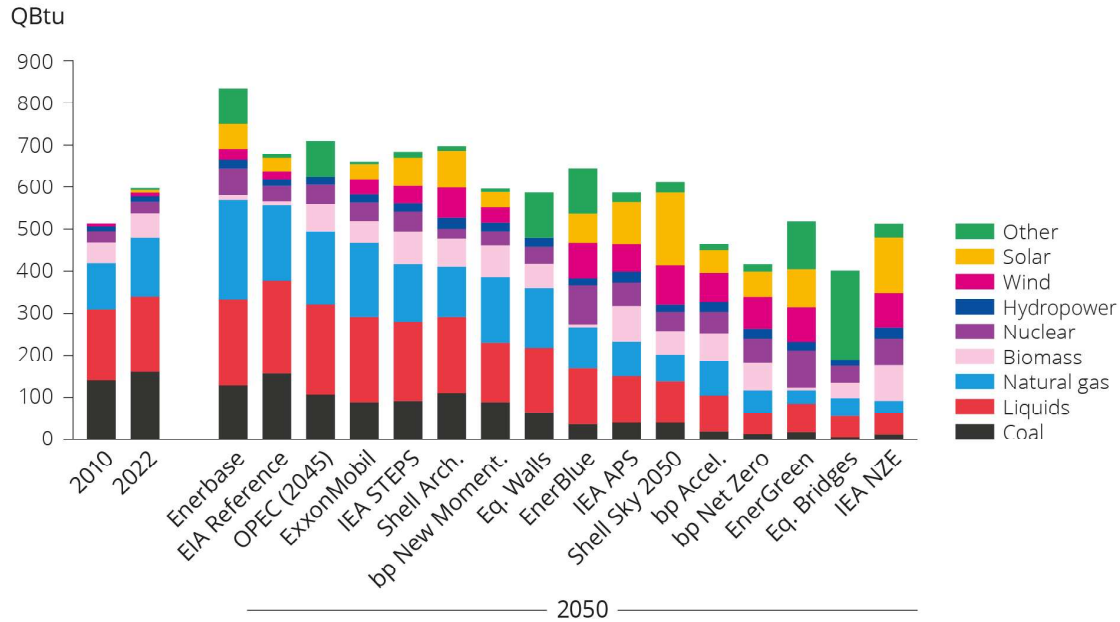


Figure 3.1 Global primary energy demand in 2050, different energy forecasts and scenarios.
Source: Resources for the Future, 2024; British thermal units – Btu.

This figure was prepared by the US-based independent research foundation Resources for the Future (RFF)(3). Each year, RFF compares various selected long-term energy forecasts and scenarios in an effort to identify primary trends in global energy consumption and production. In most scenarios, global demand for primary energy will either grow modestly or decline toward 2050. This will be the case despite the substantial expected increase in global population. The main reason for this is a global economy that is becoming more energy efficient.

Six of the scenarios show increased demand for oil/liquids leading up to 2050, while demand for natural gas rises in eight, which is half of the scenarios. Consumption will remain high after 2050, despite a decline in demand for fossil energy. This will be the case even in normative scenarios where global warming is limited to 1.5 degrees Celsius.

As production from current oil and gas fields is subject to natural decline, considerable investments in new capacity will be needed in order to meet future demand. In relative terms however, the industry(4) expends less capital on new investments than on dividend and share buybacks, see figure 3.2.

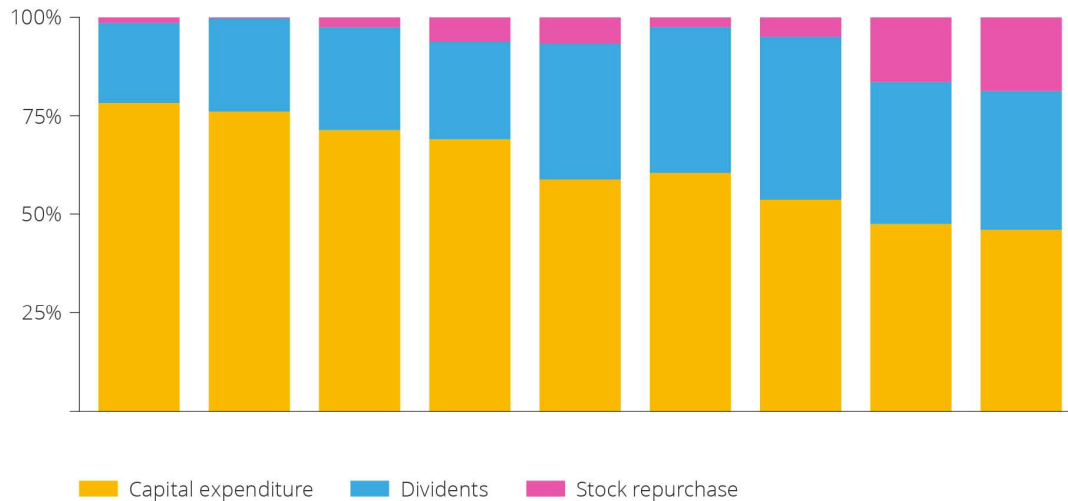


Figure 3.2 Expenditure on investments in exploration and recovery, dividend and share buybacks for the 30 largest oil and gas companies, 2015–2023 (Source: IEA 2024).

Companies will likely lean towards investing capital in oil and gas resources they find most profitable, which generally means oil and gas resources with low costs and low emissions per produced unit. These are often called 'advantaged' resources(5). The companies are therefore expected to seek out such advantaged resources, rather than investing in existing discoveries and fields challenged by high costs and emissions. Heavy oil and shale oil are examples of more challenged resources.

A study conducted by Wood Mackenzie(6) shows that there are few advantaged oil and gas resources available globally to meet future demand. Yet, these resources are plentiful on the NCS.

The Norwegian continental shelf is competitive

Nearly all oil and gas produced on the NCS is exported to Europe. This helps ensure a safe and stable energy supply for Europe.

The removal of Russian gas following the invasion of Ukraine laid bare the importance of stable gas deliveries from Norway to the rest of Europe. In 2022, Norway increased its gas exports by about 8 per cent or 9 billion scm (standard cubic metres). Deliveries from Norwegian fields have helped cover a higher share of Europe's gas needs than before. The volume supplied by Norway now corresponds to about 30 per cent of the EU's and UK's total gas consumption.

Without deliveries of these Norwegian resources, Europe would have a greater need to purchase LNG on the global market. This in return, would lead to a tighter global market, and would also have a greater impact on developing countries in Asia that need to import gas. Without deliveries from Norway, European gas and energy prices could be even higher.

Access to energy have increasingly become part of national security policies. Norwegian presence in the high north and Norway's protection of critical societal functions such as gas infrastructure, will likely only become more important moving forward.

In spite of somewhat higher exploration and development costs compared with other petroleum provinces, the NCS is well-positioned to remain a competitive producer and exporter of oil and gas.

The relatively higher costs are caused in part by the fact that activities take place far out at sea and under challenging weather conditions. Substantial remaining resources, well-developed infrastructure, low operating expenses and stable framework conditions make the NCS an attractive investment opportunity, see figure 3.3(7).

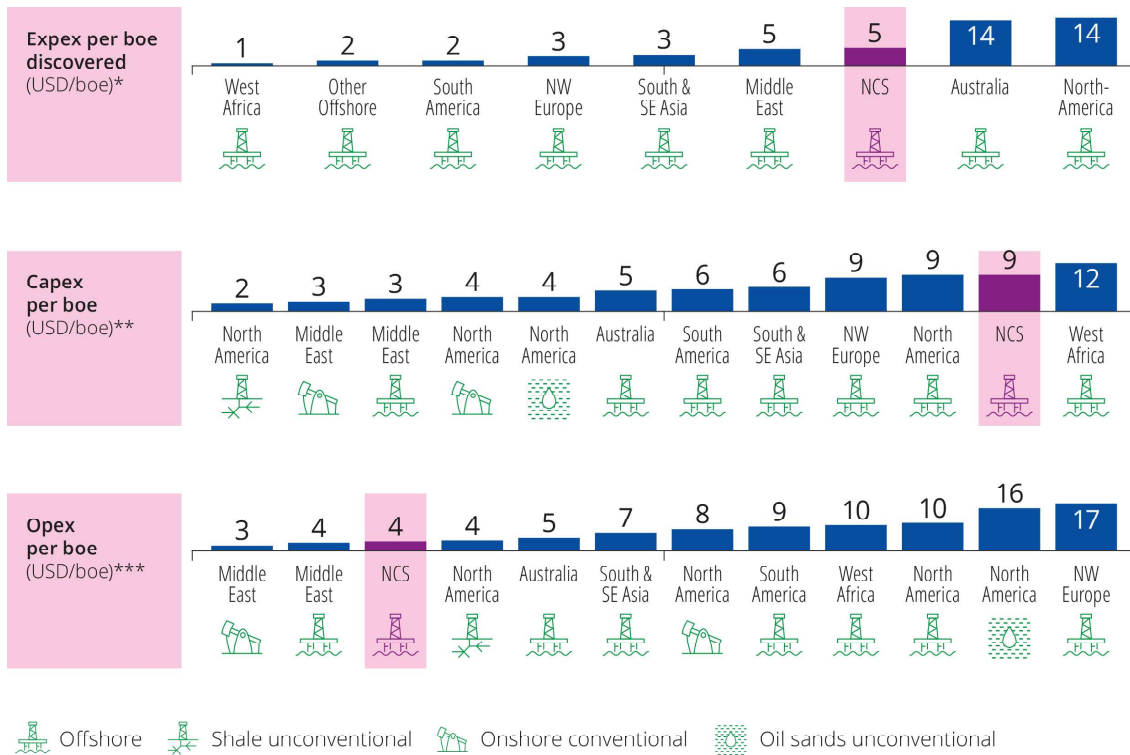


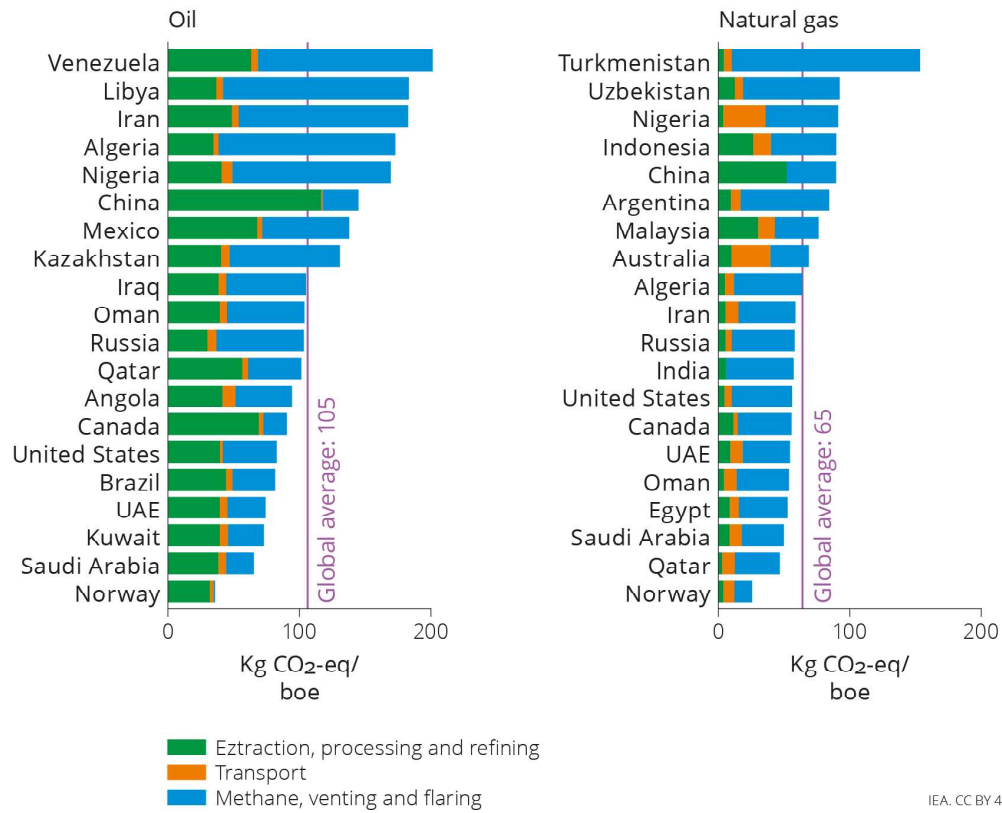
Figure 3.3 Unit costs for exploration, development and operations on the Norwegian shelf compared with other petroleum provinces in 2021.

***Exploration expenses per barrel; offshore only. Only includes commercial discoveries where public information is available. Average of 2019 and 2020.**

****Greenfield capital expenditures related to sanctioned oil and gas fields in current year. Volume-weighted average of 2019 and 2020.**

*****Operating expenses do not include transport costs and tax. Only includes opex associated with the production of hydrocarbons in addition to sales, general and administrative expenses (Source: OG21 2021).**

The NCS has very low greenhouse gas emissions per produced unit compared with other petroleum provinces, see figure 3.4(8).



IEA. CC BY 4.0.

Figure 3.4 Comparison of average emission intensity in kg CO₂ equivalent/bbls of oil equivalent in 2022 for the largest oil and gas producers (Source: IEA 2023b).

Need for considerable investments moving forward

Petroleum investments increased sharply in 2023 after declining for three years straight, see figure 3.5. Investments in field developments were the main contributor to the increase, while the rise in exploration was more moderate.

The increase in 2023 must be viewed in context with high petroleum prices and the temporary changes in the petroleum tax rules that were implemented in connection with the oil price plunge in the spring of 2020. This ensured that plans for development and operation (PDOs) for as many as 13 new field developments were submitted in 2022. Several investment decisions were also made for further development of operating fields and improved recovery on existing fields.

The high number of field developments will contribute to stable activity levels moving forward. In a longer perspective, the decline in remaining resources is eventually expected to lead to lower investments in oil and gas production.

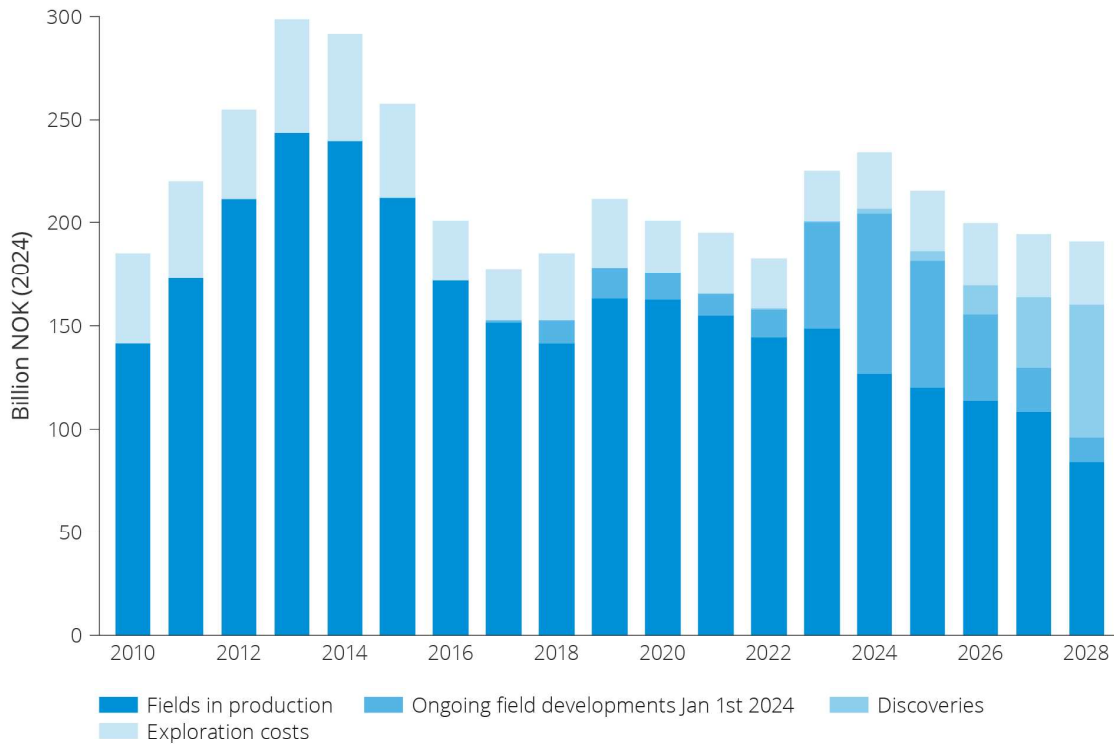


Figure 3.5 Historical petroleum investments and projections for future petroleum investments on the NCS.

Petroleum production on the NCS increased slightly in 2023 in relation to 2022, but has been on plateau more or less since 2021. It is below its highest level in 2010. At the same time, gas production declined somewhat from record-high levels in 2022. The production of petroleum has increased each year starting in 2020 (Figure 3.6) and is expected to increase further in 2024 and 2025. The Norwegian Offshore Directorate projects that the level in 2025 will be the highest since 2006.

Production from existing fields will presumably decline after 2025, and production and exports from the NCS will gradually start to fall if no action is taken.

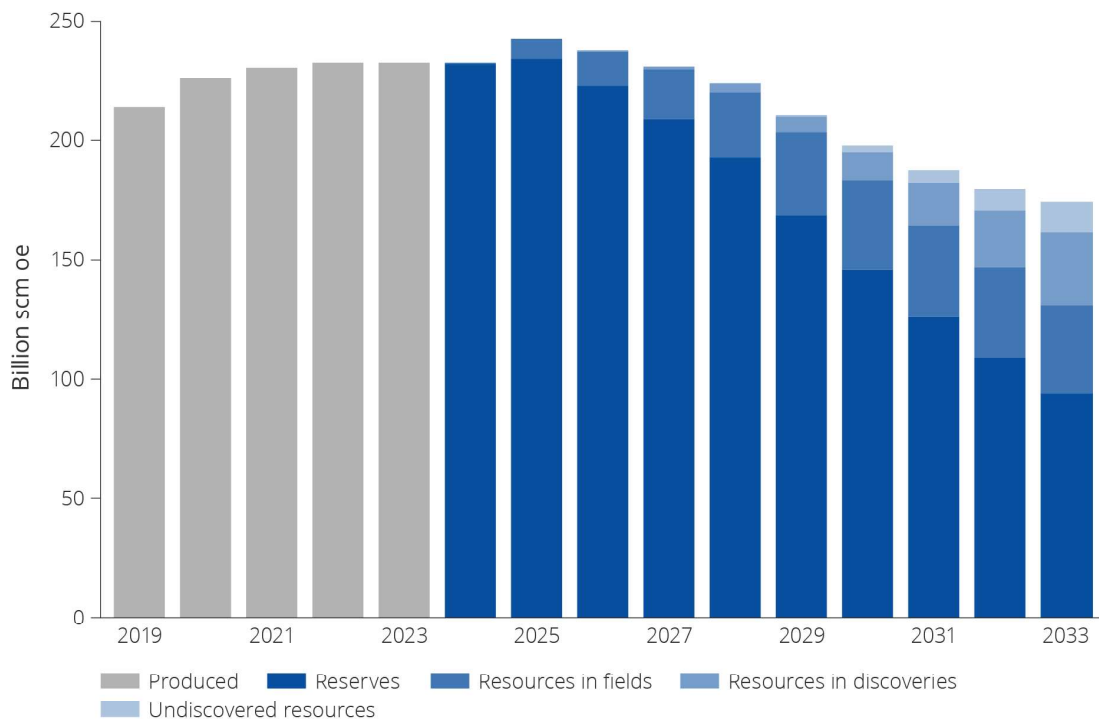
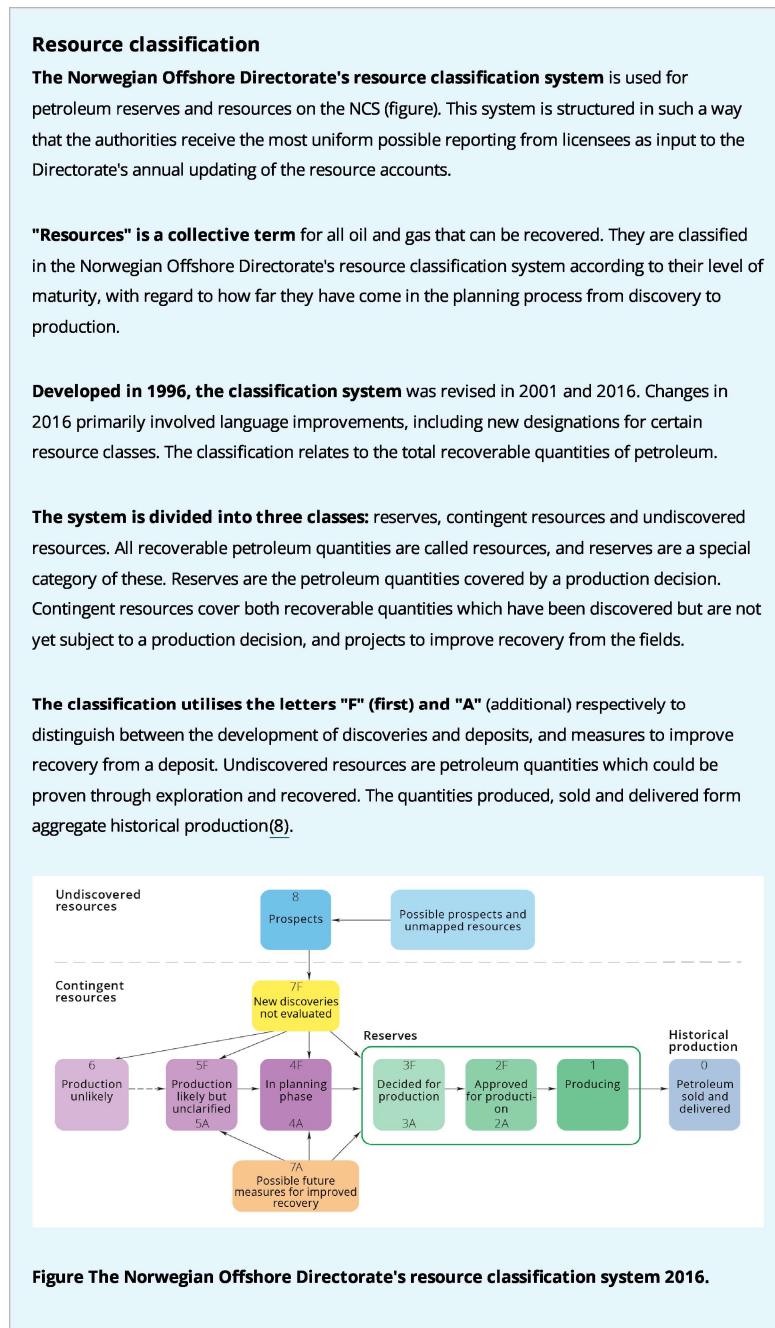


Figure 3.6 Production history and forecasts by resource class (Resource Accounts as of 31 December 2023(7) RNB 2024).

In order to slow the decline in production, the companies will need to make more and larger discoveries and complete additional projects for improved recovery. The Norwegian Offshore Directorate's assessments indicate that In 2033, about one-half of total production will be from projects that have not been approved as of June 2024 (see resource classification below).



New industries on the shelf

The need to reduce CO₂ emissions means that multiple facilities will be needed to capture and store CO₂ (CCS). CCS involves capturing CO₂ from power generation and industry and transporting and storing it safely in geological formations deep underground. There are several suitable formations on the NCS.

The energy transition will also lead to an increased need for renewable energy, which is dependent on multiple minerals and metals. Some of which can be found on the NCS.

Russia's Weekly Oil Refining Rises to Highest Since Mid-August

2024-12-16 13:44:07.648 GMT

By Bloomberg News

(Bloomberg) -- Russia's average crude-processing rate rose to 5.49m b/d during Dec. 5-11, according to a person with knowledge of industry data.

* That's the highest weekly refining rate since mid-August, according to historical data

* The rate is almost 34k b/d higher than it was during the first four days of the month, when primary crude processing surged

** The increase earlier in the month was supported by the lifting of a gasoline-export ban for producers of the fuel and recent weakness in the ruble, benefiting export-focused refineries

** READ, Dec. 9: Russia Refinery Runs Increase as Gasoline-Export Ban Lifted

* Crude-processing rate averaged 5.48m b/d from Dec. 1-11, or some 131k b/d higher than during most of November

* NOTE: Russia's refinery runs remain one of the key indicators — alongside the nation's seaborne export flows — for market watchers to follow trends in its oil industry, after the government classified official output data amid Western sanctions

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12/17/2024 07:11:06 [BN] Bloomberg News

Russia's Seaborne Crude Shipments Slide by 11% Since October

Country's seaborne flows stabilize near 3 million barrels a day

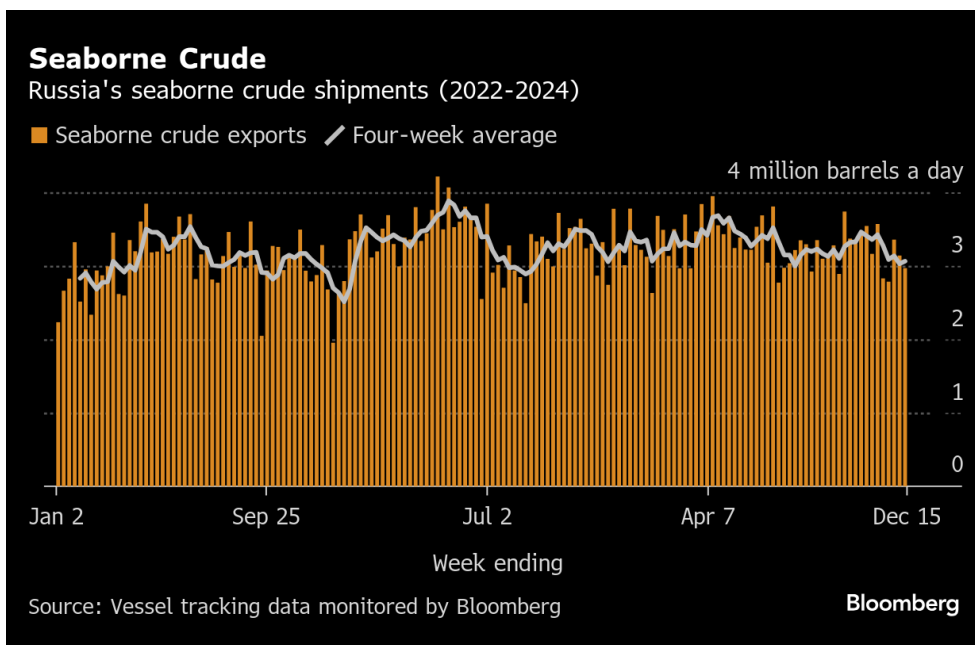
By Julian Lee

(Bloomberg) -- Russia's seaborne crude shipments have fallen by about 11% since October, with maintenance work at one of the country's main export terminals pushing flows even lower in the latest week.

Flows have settled just above 3 million barrels a day after weekly fluctuations are smoothed out. Four-week average volumes stood at 3.06 million barrels a day in the period to Dec. 15, down from a recent peak of 3.46 million two months ago.

The drop comes as Western powers are stepping up pressure on the shadow fleet of tankers built up by Russia to keep its oil flowing and as refinery runs hit their highest weekly rate since mid-August, potentially reducing volumes of crude available for export. Russia has also been under mounting pressure to abide by its OPEC+ production target, which has been extended to the end of March, after the group again delayed plans to start raising production.

European nations have ramped up sanctions on the vessels that carry Moscow's oil while the US is weighing new, harsher measures just weeks before Donald Trump returns to the White House.



The European Union added 42 oil tankers to its list of sanctioned vessels on Monday, though more than half of them had already been sanctioned by the UK. Separately, 12 European countries are set to clamp down on tankers moving Russian petroleum around the world by asking to see how they're protected against oil spills and other high-cost

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claims.

Ukraine, meanwhile, has identified 238 tankers it says belong to the shadow fleet, with a view to authorities sanctioning even more of the carriers. There's evidence that the actions have an impact, with almost two-thirds of tankers sanctioned by Western nations for their involvement in the Russian oil trade remaining idle, with many gathering in locations close to Russian ports.

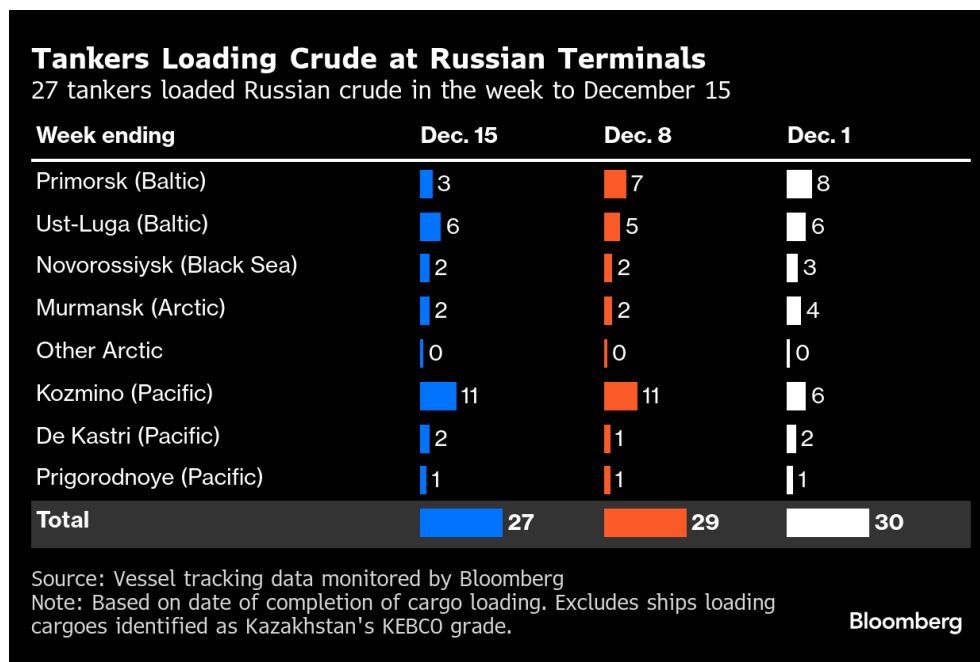
Moscow has extended until the end of June its own ban on oil sales to foreign buyers that adhere to a price cap mechanism imposed by the G7 nations in response to Russia's 2022 invasion of Ukraine.

Meanwhile, the country's oil exporters are cementing their ties with buyers in India. Rosneft has agreed to supply about 500,000 barrels a day of crude to Reliance Industries under a 10-year contract that's due to start in January.

Refinery runs continued to rise after completion of seasonal maintenance. The increase this month has been supported by the lifting of a gasoline-export ban for producers of the fuel and recent weakness in the ruble, benefiting export-focused refineries.

Crude Shipments

A total of 27 tankers loaded 20.8 million barrels of Russian crude in the week to Dec. 15, vessel-tracking data and port-agent reports show. The volume was down from 22 million barrels on 29 ships the previous week.



Daily crude flows in the week to Dec. 15 fell by about 170,000 barrels to 2.97 million. That followed a drop of about 220,000 barrels a day in the week to Dec. 8.

The drop resulted from a four-day halt in departures from the main Baltic port of Primorsk. A similar gap in a partial loading program for the port, seen by Bloomberg, suggests that the disruption was related to work on the terminal or

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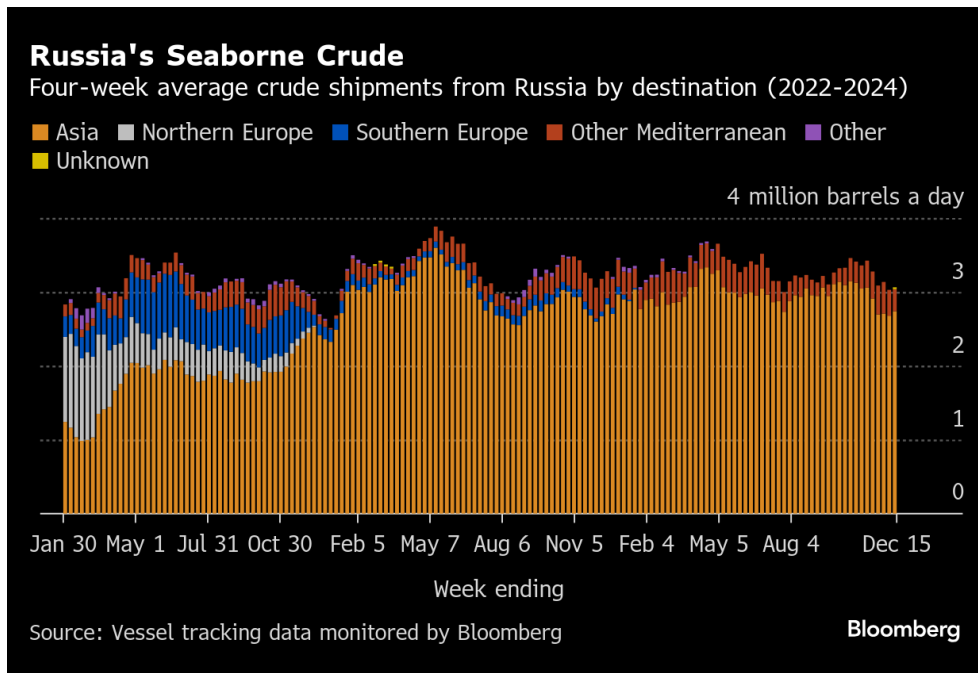
the pipeline serving it.

In contrast, cargo loading at the key Pacific site of Kozmino has remained strong, with 11 tankers loading in each of the past two weeks, just one vessel short of the record number handled in a seven-day period.

Less volatile four-week average flows moved in the opposite direction, edging higher to average 3.06 million barrels a day, an increase of 30,000 from the period to Dec. 8.

Crude shipments so far this year are about 70,000 barrels a day, or 2%, below the average for the whole of 2023.

No cargoes of Kazakhstan’s KEBCO crude were loaded 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 March, after a planned easing of some output cuts was delayed for a third time.

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

Export Value

The Kremlin’s oil income slipped in line with crude flows, with weekly-average prices for Russia’s major crude streams moving different directions. The gross value of Moscow’s shipments fell by about \$70 million to \$1.36 billion in the week to Dec. 15.

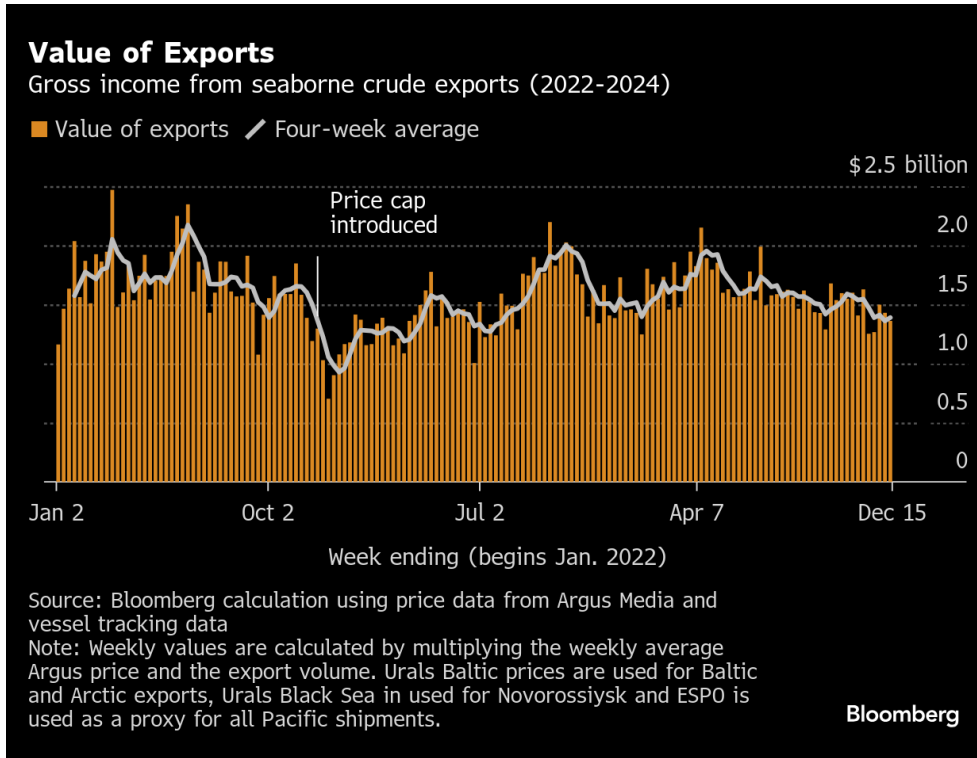
Export values at Baltic ports were down week-on-week by about \$0.60 a barrel. In contrast, prices for Black Sea loading Urals rose by about \$0.20 a barrel and key Pacific grade ESPO was up by about \$0.40, compared with the

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previous week. Delivered prices in India were down marginally, all according to numbers from Argus Media.

Four-week average income increased, rising to about \$1.39 billion a week, from \$1.36 billion in the period to Dec. 8.

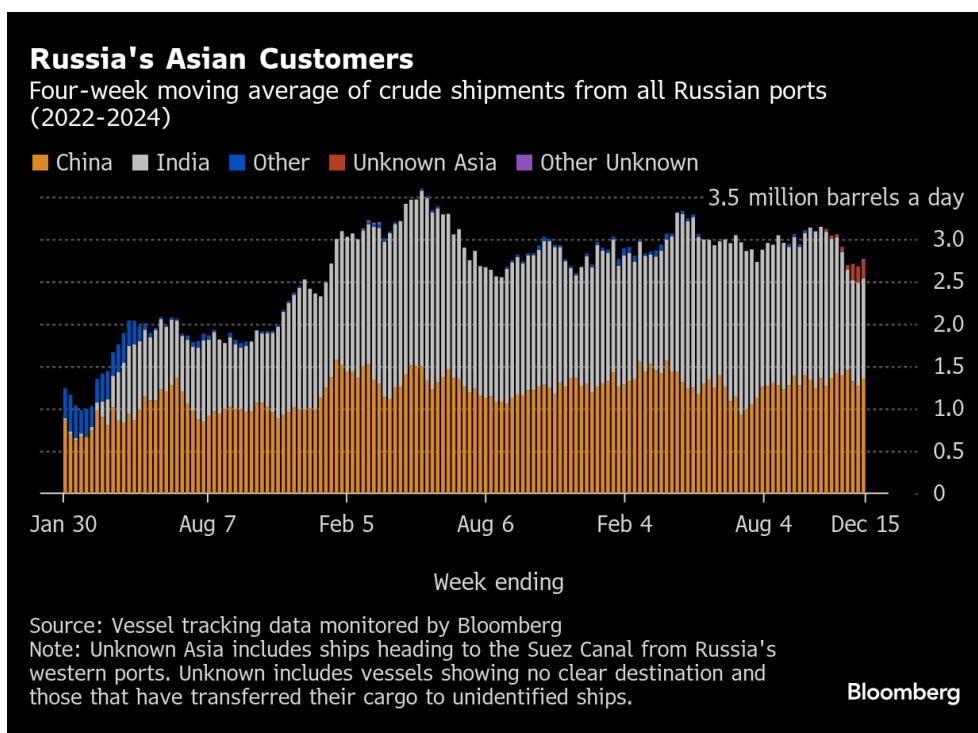
On this basis, the price of Russia's shipments from the Baltic in the four weeks to Dec. 15 was up by about \$0.40 a barrel from the period to Dec. 8. Prices for key Pacific grade ESPO and for Black Sea Urals shipments were higher by about \$0.50 a barrel and \$0.30 a barrel respectively. The delivered price for shipments to India was also up by about \$0.30 a barrel.



Flows by Destination

- **Asia**

Observed shipments to Russia's Asian customers, including those showing no final destination, edged higher to 2.77 million barrels a day in the four weeks to Dec. 15 from 2.68 million in the period to Dec. 8.



About 1.35 million barrels a day of crude were loaded onto tankers heading to China. That's up from 1.27 million barrels a day in the period to Dec. 8.

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 1.19 million barrels a day, down from 1.22 million for the period to Dec. 8.

The Indian figures, in particular, are likely to rise as the discharge ports become clear for vessels that are not currently showing final destinations. Most of those heading from Russia's western ports through the Suez Canal end up in the south Asian nation.

The equivalent of about 200,000 barrels a day was on vessels signaling Port Said or Suez in Egypt. Those show up as "Unknown Asia" until a final destination becomes apparent.

The "Other Unknown" volumes, running at about 30,000 barrels a day in the four weeks to Dec. 15, 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.

Greek naval exercises that have been running since May and have forced ship-to-ship cargo transfers out of the Laconian Gulf and nearby waters, were extended for a sixth time and will now continue until mid-March. Russia has found a new location close to Greek shores to carry out cargo switches, though this has so far been limited to refined products.

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Crude Shipments to Asia						
Shipments of Russian crude to Asian buyers in million barrels a day						
4 weeks ending	China	India	Other	Unknown Asia	Other Unknown	Total
November 10, 2024	1.42	1.60	0.00	0.04	0.00	3.06
November 17, 2024	1.39	1.46	0.00	0.06	0.00	2.91
November 24, 2024	1.45	1.19	0.00	0.05	0.00	2.70
December 1, 2024	1.32	1.20	0.00	0.19	0.00	2.71
December 8, 2024	1.27	1.22	0.00	0.19	0.00	2.68
December 15, 2024	1.35	1.19	0.00	0.20	0.03	2.77

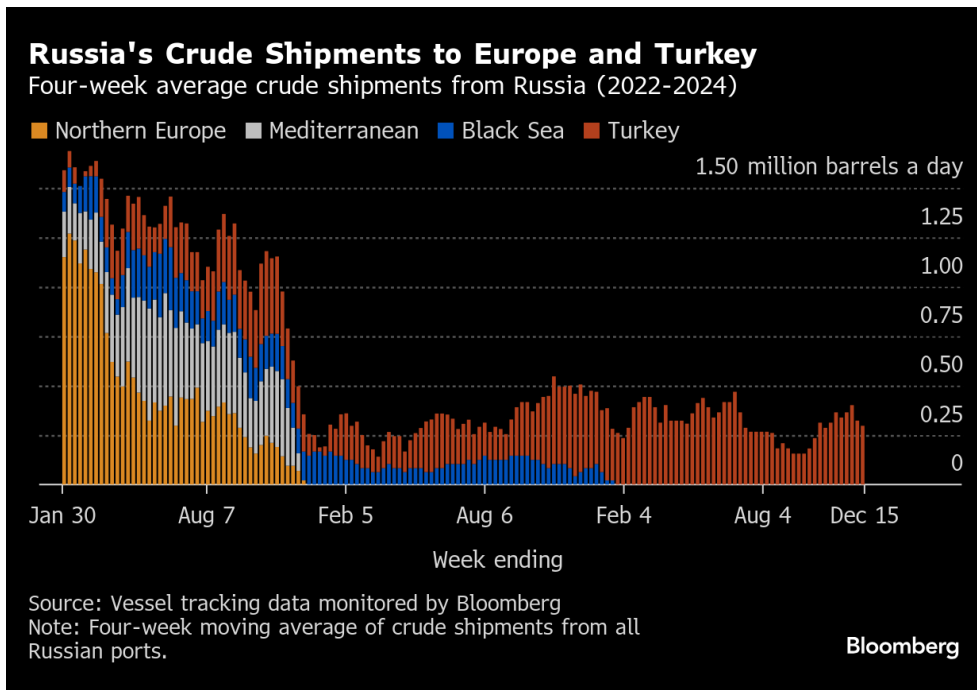
Source: Vessel tracking data compiled by Bloomberg **Bloomberg**

• Europe and Turkey

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

Turkey is now the only short-haul market for shipments from Russia’s western ports. Flows in the 28 days to Dec. 15 fell to about 300,000 barrels a day, the lowest in seven weeks. Fires at two Turkish refineries in November may have hit the amount of crude heading for the country.

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NOTES

This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the gross value of those flows. There will be no update next week; publication will resume on Tuesday, Jan. 7.

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.

--With assistance from [Sherry Su](#).

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12/19/2024 10:50:15 [BN] Bloomberg News

OIL DEMAND MONITOR: Asia to Drive 2025 Growth; Banks More Upbeat

- Forecasters agree that Asia to be biggest demand growth source
- Agencies still hold widely differing views on scale of growth

By Julian Lee and John Deane

(Bloomberg) -- Asia will again drive oil demand growth in 2025, key market watchers have concluded, while some banking analysts have begun to sound more upbeat on the outlook for the supply-demand balance.

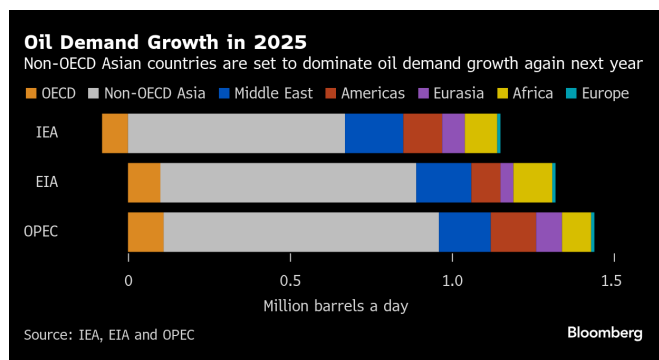
Of the three main forecasting agencies, the Organization of Petroleum Exporting Countries remains the most optimistic, seeing oil use increasing by 1.45 million barrels a day next year. The US's Energy Information Administration isn't far behind, pegging demand growth at 1.3 million, while the Paris-based International Energy Agency is the most pessimistic, with a forecast of 1.08 million.

Almost all of the growth seen by OPEC will take place outside the industrialized nations of the OECD – a view shared by the other groups – with China, India and other Asian countries to be responsible for almost 60% of the increase.

"Growth is expected to be bolstered by strong air travel demand and healthy road mobility," as well as industrial, construction and agricultural activities in non-OECD countries, OPEC said in its latest monthly report.

In contrast, the IEA sees demand gains "reflecting a generally subpar macroeconomic environment." It also expects growth in oil use, both this year and next, dominated by petrochemical feedstocks, while uptake of transport fuels will remain constrained.

The IEA attributes the 90,000 barrel-a-day increase in its forecast for 2025 largely to "Asian countries due to the impact of China's recent stimulus measures." Like OPEC, it sees about 60% of global demand growth next year coming from Asia, with the Middle East ranking a distant second.



Some banking analysts are beginning to sound more upbeat about the outlook for oil next year.

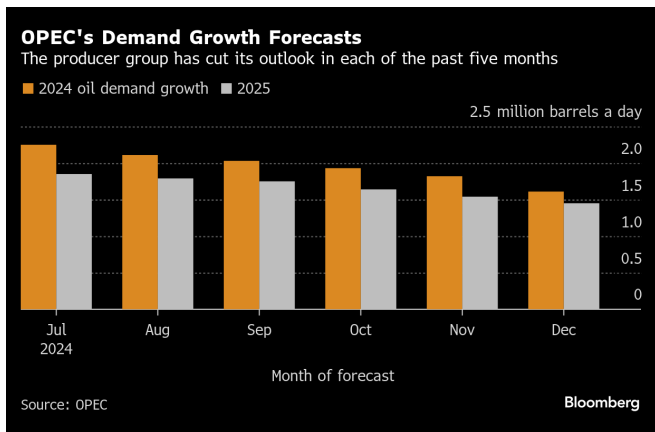
Crude inventories have only seen modest increases as 2024 comes to a close, compared with the "large builds" that were predicted earlier this year, Macquarie analysts said in a note to clients.

"Inventories remain tight and the curve remains backwardated, implying a positive scarcity premium in the front end," Barclays analyst Amarpreet Singh said in another note. Meanwhile, UBS strategists said the market will be "almost balanced" in 2025, with global demand to grow by about 1.2 million barrels a day next year, the same as 2024.

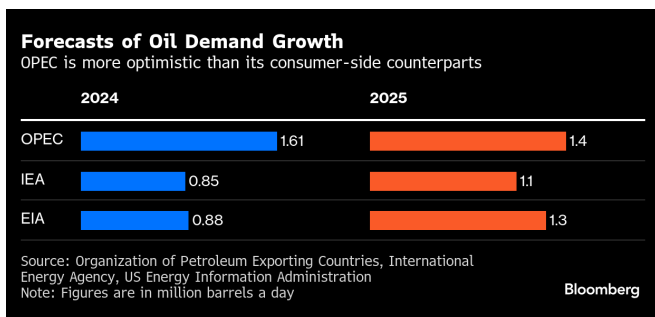
Still, with 2024 drawing to a close, OPEC has continued to cut demand growth estimates for both this year and next. In the group's latest monthly report, it reduced forecasts of additional oil demand for a fifth straight month for both years.

It has now cut incremental global oil demand in 2024 by 640,000 barrels a day since July, while the growth seen next year has been reduced by 400,000 barrels a day over the same period.

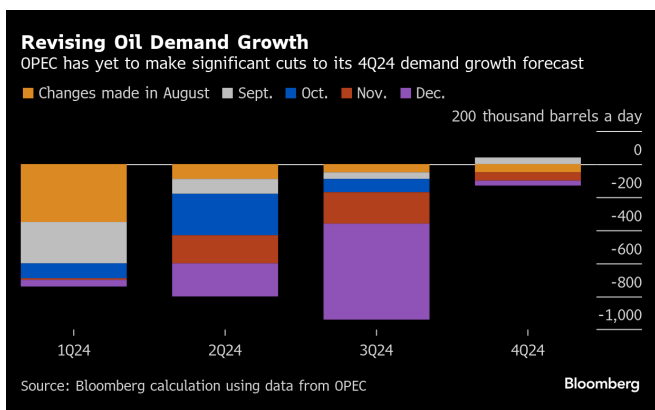
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Despite the reductions, OPEC analysts remain more bullish than their consumer-sided counterparts at the IEA and the EIA.



In its most recent monthly report, OPEC slashed its growth estimate for the third quarter, noting that downward revisions were made on actual data received for the period. Unless there is a dramatic recovery in demand in the current quarter, which seems unlikely, OPEC will probably have to make similar cuts to its 4Q 2024 estimates when it gets actual data for the final three months of the year.



DEMAND BY COUNTRY:

Demand Measure	Location	% vs 2023	% vs 2022	% vs 2021	% vs 2020	% vs 2019	m/m chg	Freq	Latest Date	Latest Value	Source
Gasoline product supplied	US	2.0	2.4	-5.8	11.9	-5.1	6.0	w	Dec. 13	8.93m b/d	EIA

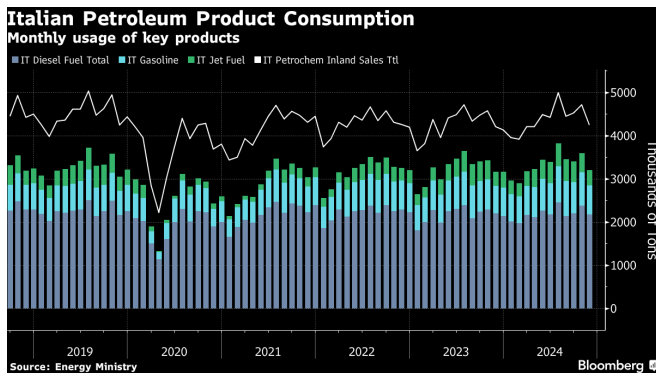
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Distillates product supplied	US	17.7	12.0	-8.1	12.4	9.2	19.2 w	Dec. 13	4.5m b/d	EIA
Jet fuel product supplied	US	25.3	-0.1	6.5	48.9	-16.8	7.1 w	Dec. 13	1.7m b/d	EIA
Total oil product supplied	US	0.2	-0.5	-10.2	7.7	-4.5	5.3 w	Dec. 13	20.8m b/d	EIA
Total products consumption	India	9.3	6.9	22.2	5.6	10.3	2.0 m	November	20.43m tons	PPAC. Click for data. See related story
Diesel sales	India	8.5	5.2	25.5	16.0	7.9	6.9 m	November	8.17m tons	PPAC
Gasoline sales	India	9.6	19.8	29.6	28.6	35.3	0.5 m	November	3.43m tons	PPAC
Jet fuel sales	India	8.5	21.1	48.4	99.0	5.5	-1.2 m	November	748k tons	PPAC
LPG sales	India	7.5	8.6	14.5	13.7	18.3	-2.1 m	November	2.67m tons	PPAC
% change y/y in toll roads kms traveled	France	2.9					m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Italy	1.8					m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Spain	8.3					m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Brazil	3.9					m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Chile	4.2					m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Mexico	3.6					m	November	n/a	Mundys

- [READ: Italy's Gasoline, Jet Fuel Sales Gained in November; Diesel Weak](#)



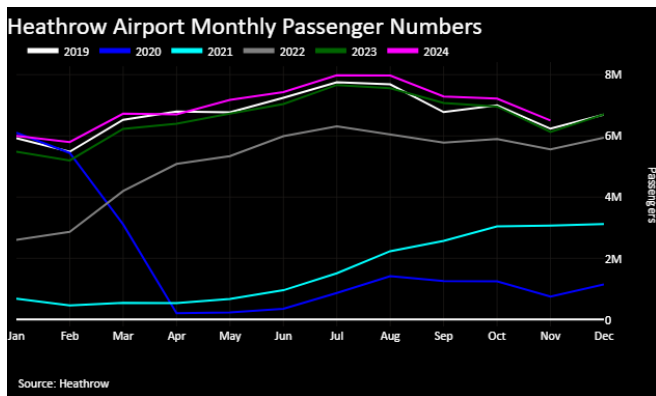
- [READ: France's Road Diesel Sales Weakened in November; Gasoline Gained](#)
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 - [Data](#)
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 - [Data](#)
- [Link to Anas data on Italy road traffic](#)
- [Link to ENSE data on Portugal's oil products consumption](#)
- [UK govt data on fuel sales](#)
- [UK govt data on traffic levels](#)
- [NOTE: Link on sources](#)

AIR TRAVEL:

Measure	Location	vs 2023	vs 2022	vs 2021	vs 2020	vs 2019	m/m	w/w	Freq	Latest		Source
										Date	Latest Value	
All flights (7-day avg)	Worldwide	0.4	12.6	12.8	41.2	10.5	-4.6	0.2	d	Dec. 17	198,734	Flightradar 24
Commercial flights (7-day avg)	Worldwide	0.0	16.2	29.2	70.4	6.2	0.3	0.7	d	Dec. 17	120,089	Flightradar 24
Airport passenger throughput (7-day avg)	US	0.0	8.8	22.8	226.1	7.1	-0.1	3.2	d	Dec. 17	2.38 million	TSA
Heathrow monthly passengers	UK	6.1	16.9	112.0	770.3	4.3	-9.9		m	November	6.50 million	Heathrow

- [Click here](#) for link to Eurocontrol data on flights TK TK
- [Click here](#) for link to OAG data on airline seat capacity

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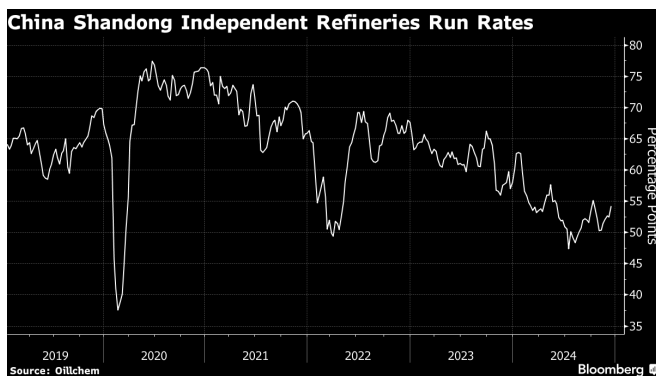


- READ: 'Twas the Flight Before Christmas: Jet Fuel Demand Soars: BNEF

REFINERIES:

Measure	Location	vs 2023	vs 2022	vs 2021	vs 2019	m/m chg	Latest as of Date	Latest Value	Source
Crude intake	US	0.7	4.0	6.0	0.3	2.4	Dec. 13	16.6m b/d	EIA
Utilization	US	-0.6	0.9	2.0	1.2	1.6	Dec. 13	91.8	EIA
Utilization	US Gulf	2.0	1.9	4.7	2.9	2.4	Dec. 13	94.7	EIA
Utilization	US East	-12.4	-13.8	-10.0	11.7	-2.5	Dec. 13	79.8	EIA
Utilization	US Midwest	-2.8	4.3	-1.0	0.1	5.7	Dec. 13	93.2	EIA

- NOTE: US refinery data is weekly. Changes are shown in percentages for the row on crude intake (millions of barrels a day), while changes in refinery utilization percentages are shown in percentage points.



This story was produced with the assistance of Bloomberg Automation.

--With assistance from [Prejula Prem](#) and [Bill Lehane](#).

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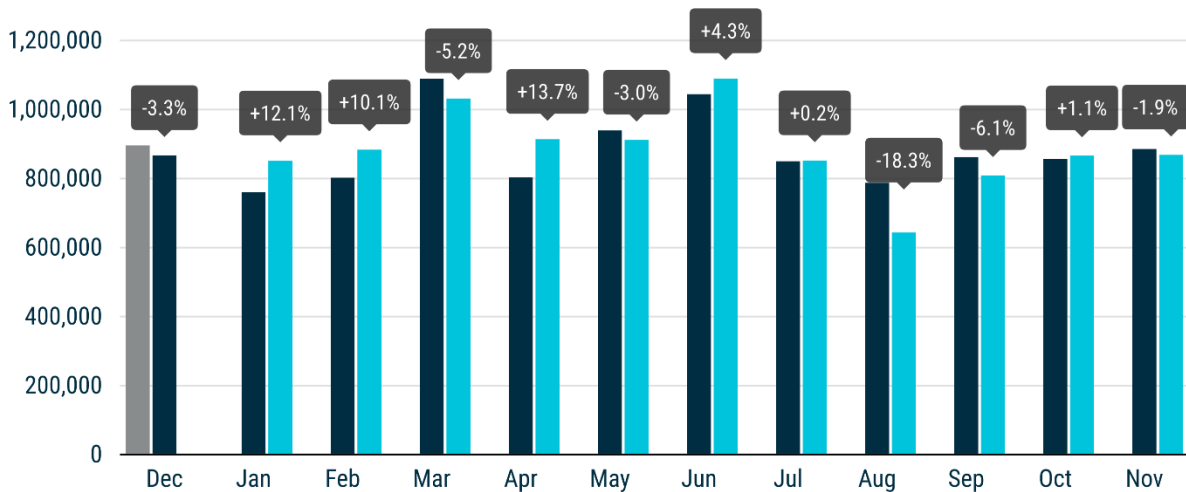
NEW CAR REGISTRATIONS, EUROPEAN UNION

EMBARGOED PRESS RELEASE
6.00 CET (5.00 GMT), 19 December 2024

**New car registrations: -1.9% in November 2024;
year-to-date battery-electric sales -5.4%**

12-month trend

■ 2022 ■ 2023 ■ 2024



In **November 2024**, new EU car registrations fell by 1.9%. France led the way with a sharp 12.7% decline, followed by Italy (-10.8%), while the German market stagnated slightly (-0.5%). Among the four most significant EU markets, only Spain recorded positive growth (6.4%).

Eleven months into 2024, new car registrations remained stable (+0.4%), reaching 9.7 million units. While the market in Spain performed positively (+5.1%), declines were witnessed in France (-3.7%), Germany (-0.4%), and Italy (-0.2%).

NEW EU CAR REGISTRATIONS BY POWER SOURCE

The battery-electric car market share for **November 2024** fell to 15% from 16.3% last year, while volumes dropped by 9.5%.

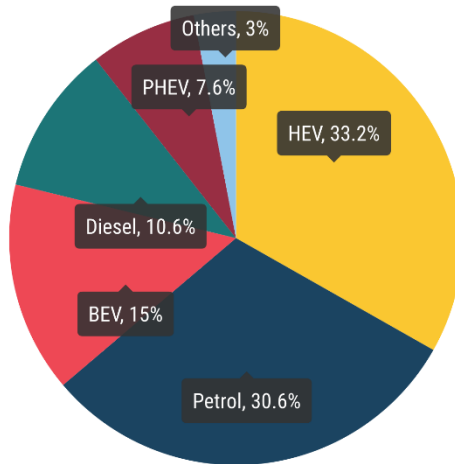
Data source: the European Automobile Manufacturers' Association (ACEA), based on aggregated data provided by national automobile associations, ACEA members and S&P Global Mobility.

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Plug-in hybrid car registrations for **November 2024** also declined by 8.8%. The market share for this type of vehicle reached 7.6% last month, a decrease of 0.6 percentage points compared to the same period last year.

■ Hybrid electric (HEV)
 ■ Petrol
 ■ Battery electric (BEV)
 ■ Diesel
 ■ Plug-in hybrid electric (PHEV)
 ■ Others

% SHARE



Electric cars

Registrations of battery-electric cars declined by 9.5% to 130,757 units in **November 2024**. This drop was primarily driven by a significant decrease in registrations in Germany (-21.8%) and France (-24.4%). It resulted in a year-to-date market volume 5.4% lower than the same period last year, with the total market share now at 13.4%.

Plug-in hybrid car registrations fell by 8.8% last month, following significant declines in France (-19.6%), Belgium (-61.4%), and Italy (-31.4%). In **November**, plug-in hybrids accounted for 7.6% of the car market, down from 8.1% last year. Year-to-date volumes were also down, decreasing by 8% compared to the same period last year.

Hybrid-electric registrations increased by 18.5% in **November**, with market share rising to 33.2%, up from 27.5% last November, exceeding petrol car registrations for the third consecutive month.

Petrol and diesel cars

In **November 2024**, petrol car sales dropped by 7.8%. All four major markets recorded decreases: France experienced the steepest drop, with registrations plummeting by 31.5%, followed by Italy with a 12.3% decline. Though more modest, Germany and Spain recorded declines as well (-5.4% and -2.3%, respectively).

With 266,115 new cars registered last month, the market share for petrol dropped to 30.6%, down from 32.5% in the same month last year. The diesel car market declined by 15.3%, resulting in a 10.6% market share last November. Overall, decreases were observed in most EU markets.

NEW CAR REGISTRATIONS BY MARKET AND POWER SOURCE

MONTHLY

	BATTERY ELECTRIC			PLUG-IN HYBRID			HYBRID ELECTRIC ¹			OTHERS ²			PETROL			DIESEL			TOTAL		
	November 2024	November 2023	% change 24/23	November 2024	November 2023	% change 24/23	November 2024	November 2023	% change 24/23	November 2024	November 2023	% change 24/23	November 2024	November 2023	% change 24/23	November 2024	November 2023	% change 24/23	November 2024	November 2023	% change 24/23
Austria	3,737	4,330	-13.7	1,354	1,213	+11.6	5,528	4,129	+33.9	0	0		5,729	5,838	-1.9	2,748	3,390	-18.9	19,096	18,900	+1.0
Belgium	11,247	9,499	+18.4	3,441	8,908	-61.4	2,728	3,141	-13.1	323	318	+1.6	12,755	13,046	-2.2	1,331	2,640	-49.6	31,825	37,552	-15.3
Bulgaria	199	179	+11.2	36	27	+33.3	108	52	+107.7	0	0		3,127	2,763	+13.2	486	449	+8.2	3,956	3,470	+14.0
Croatia	60	137	-56.2	117	73	+60.3	1,403	876	+60.2	102	139	-26.6	1,737	1,550	+12.1	675	686	-1.6	4,094	3,461	+18.3
Cyprus	168	100	+68.0	55	76	-27.6	460	546	-15.8	0	0		373	494	-24.5	16	28	-42.9	1,072	1,244	-13.8
Czechia	1,248	791	+57.8	371	418	-11.2	4,914	3,602	+36.4	522	376	+38.8	9,930	9,913	+0.2	3,656	4,310	-15.2	20,641	19,410	+6.3
Denmark	8,769	7,227	+21.3	571	1,281	-55.4	2,317	2,831	-18.2	0	0		2,491	4,336	-42.6	791	674	+17.4	14,939	16,349	-8.6
Estonia	131	129	+1.6	177	39	+353.8	1,587	789	+101.1	12	5	140.0	805	625	+28.8	601	240	+150.4	3,313	1,827	+81.3
Finland	1,995	2,310	-13.6	1,201	1,453	-17.3	1,765	1,721	+2.6	8	35	-77.1	1,152	855	+34.7	222	299	-25.8	6,343	6,673	-4.9
France	23,255	30,775	-24.4	11,683	14,540	-19.6	52,462	40,050	+31.0	3,688	5,312	-30.6	33,411	48,805	-31.5	8,820	13,229	-33.3	133,319	152,711	-12.7
Germany	35,167	44,942	-21.8	20,604	18,124	+13.7	73,950	60,463	+22.3	961	968	-0.7	77,352	81,734	-5.4	36,510	39,470	-7.5	244,544	245,701	-0.5
Greece	1,106	443	+149.7	727	996	-27.0	4,725	3,354	+40.9	590	328	+79.9	3,135	4,036	-22.3	383	1,295	-70.4	10,666	10,452	+2.0
Hungary	648	530	+22.3	429	431	-0.5	4,895	3,912	+25.1	68	34	+100.0	3,243	2,437	+33.1	1,364	949	+43.7	10,647	8,293	+28.4
Ireland	511	324	+57.7	123	91	+35.2	198	189	+4.8	0	0		123	148	-16.9	163	169	-3.6	1,118	921	+21.4
Italy	6,564	7,951	-17.4	3,912	5,699	-31.4	52,611	52,752	-0.3	11,254	13,880	-18.9	34,306	39,122	-12.3	15,697	19,950	-21.3	124,344	139,354	-10.8
Latvia	108	105	+2.9	53	35	+51.4	504	445	+13.3	62	23	+169.6	505	528	-4.4	216	183	+18.0	1,448	1,319	+9.8
Lithuania	145	155	-6.5	186	92	+102.2	1,300	933	+39.3	82	47	+74.5	413	723	-42.9	481	238	+102.1	2,607	2,188	+19.1
Luxembourg	912	851	+7.2	310	359	-13.6	918	778	+18.0	0	0		915	1,197	-23.6	417	507	-17.8	3,472	3,692	-6.0
Malta	146	183	-20.2	58	93	-37.6	125	135	-7.4	0	0		234	183	+27.9	35	27	+29.6	598	621	-3.7
Netherlands	13,584	9,582	+41.8	4,997	3,162	+58.0	8,656	7,302	+18.5	134	296	-54.7	6,856	7,601	-9.8	207	280	-26.1	34,434	28,223	+22.0
Poland	1,181	1,880	-37.2	1,178	1,134	+3.9	19,576	17,897	+9.4	2,115	1,192	+77.4	20,386	15,541	+31.2	4,713	4,041	+16.6	49,149	41,685	+17.9
Portugal	4,063	4,061	+0.05	2,679	2,757	-2.8	2,793	2,025	+37.9	1,156	1,072	+7.8	4,377	4,410	-0.7	1,332	1,444	-7.8	16,400	15,769	+4.0
Romania	492	1,203	-59.1	-	-		4,638	3,725	+24.5	1,109	1,041	+6.5	3,154	4,000	-21.2	844	1,165	-27.6	10,237	11,134	-8.1
Slovakia	223	248	-10.1	272	258	+5.4	2,371	2,082	+13.9	205	157	+30.6	3,886	3,143	+23.6	2,130	2,503	-14.9	9,087	8,391	+8.3
Slovenia	296	421	-29.7	109	98	+11.2	515	562	-8.4	22	21	+4.8	2,652	2,148	+23.5	690	610	+13.1	4,284	3,860	+11.0
Spain	5,791	6,053	-4.3	4,873	5,509	-11.5	35,109	26,919	+30.4	3,432	3,092	+11.0	27,778	28,426	-2.3	6,356	8,315	-23.6	83,339	78,314	+6.4
Sweden	9,011	10,073	-10.5	6,310	5,310	+18.8	2,620	2,496	+5.0	317	754	-58.0	5,290	4,995	+5.9	1,296	1,776	-27.0	24,844	25,404	-2.2
EUROPEAN UNION	130,757	144,482	-9.5	65,826	72,176	-8.8	288,776	243,706	+18.5	26,162	29,090	-10.1	266,115	288,597	-7.8	92,180	108,867	-15.3	869,816	886,918	-1.9
Iceland	268	1,054	-74.6	76	95	-20.0	52	75	-30.7	0	0		15	27	-44.4	95	45	+111.1	506	1,296	-61.0
Norway	10,940	8,442	+29.6	154	938	-83.6	280	702	-60.1	0	0		67	59	+13.6	248	207	+19.8	11,689	10,348	+13.0
Switzerland	4,151	4,748	-12.6	1,657	2,164	-23.4	7,298	6,235	+17.0	1	2	-50.0	5,092	6,811	-25.2	1,499	2,045	-26.7	19,698	22,005	-10.5
EFTA	15,359	14,244	+7.8	1,887	3,197	-41.0	7,630	7,012	+8.8	1	2	-50.0	5,174	6,897	-25.0	1,842	2,297	-19.8	31,893	33,649	-5.2
United Kingdom	38,581	24,359	+58.4	15,687	15,871	-1.2	53,495	49,757	+7.5	0	0		41,925	61,875	-32.2	3,922	4,663	-15.9	153,610	156,525	-1.9
EU + EFTA + UK	184,697	183,085	+0.9	83,400	91,244	-8.6	349,901	300,475	+16.4	26,163	29,092	-10.1	313,214	357,369	-12.4	97,944	115,827	-15.4	1,055,319	1,077,092	-2.0

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

	BATTERY ELECTRIC			PLUG-IN HYBRID			HYBRID ELECTRIC ¹			OTHERS ²			PETROL			DIESEL			TOTAL		
	Jan-Nov 2024	Jan-Nov 2023	% change 24/23	Jan-Nov 2024	Jan-Nov 2023	% change 24/23	Jan-Nov 2024	Jan-Nov 2023	% change 24/23	Jan-Nov 2024	Jan-Nov 2023	% change 24/23	Jan-Nov 2024	Jan-Nov 2023	% change 24/23	Jan-Nov 2024	Jan-Nov 2023	% change 24/23	Jan-Nov 2024	Jan-Nov 2023	% change 24/23
Austria	40,359	43,602	-7.4	15,637	15,810	-1.1	58,235	46,765	+24.5	13	21	-38.1	76,928	71,433	+7.7	40,928	43,022	-4.9	232,100	220,653	+5.2
Belgium	120,264	86,823	+38.5	65,017	94,865	-31.5	38,450	34,467	+11.6	3,280	3,404	-3.6	176,864	191,241	-7.5	20,965	40,160	-47.8	424,840	450,960	-5.8
Bulgaria	1,768	1,797	-1.6	440	331	+32.9	924	653	+41.5	0	1	-100.0	30,995	26,688	+16.1	6,084	5,131	+18.6	40,211	34,601	+16.2
Croatia	1,668	1,503	+11.0	1,311	927	+41.4	16,401	12,081	+35.8	1,240	1,608	-22.9	28,992	27,103	+7.0	11,663	11,019	+5.8	61,275	54,241	+13.0
Cyprus	1,150	739	+55.6	611	479	+27.6	6,149	5,252	+17.1	0	0		6,143	7,097	-13.4	326	430	-24.2	14,379	13,997	+2.7
Czechia	9,943	6,183	+60.8	4,453	4,833	-7.9	46,331	36,996	+25.2	4,343	3,581	+21.3	102,376	107,654	-4.9	46,262	47,047	-1.7	213,708	206,294	+3.6
Denmark	78,446	52,846	+48.4	6,397	15,553	-58.9	27,199	27,545	-1.3	0	1	-100.0	37,088	50,576	-26.7	6,516	7,039	-7.4	155,646	153,560	+1.4
Estonia	1,232	1,306	-5.7	1,056	521	+102.7	9,958	8,214	+21.2	140	57	+145.6	5,800	8,350	-30.5	3,627	2,559	+41.7	21,813	21,007	+3.8
Finland	19,539	27,432	-28.8	13,683	16,584	-17.5	21,093	21,161	-0.3	159	454	-65.0	10,082	12,221	-17.5	3,223	3,850	-16.3	67,779	81,702	-17.0
France	260,995	260,864	+0.1	121,675	145,892	-16.6	519,956	384,161	+35.3	54,675	62,930	-13.1	464,072	584,882	-20.7	113,377	154,989	-26.8	1,534,750	1,593,718	-3.7
Germany	347,048	469,565	-26.1	172,802	157,830	+9.5	684,923	608,893	+12.5	12,992	13,494	-3.7	922,615	903,766	+2.1	452,230	449,178	+0.7	2,592,610	2,602,726	-0.4
Greece	7,626	5,802	+31.4	7,540	8,170	-7.7	53,953	38,450	+40.3	2,927	3,443	-15.0	46,973	53,379	-12.0	9,352	17,000	-45.0	128,371	126,244	+1.7
Hungary	7,813	5,375	+45.4	5,136	5,122	+0.3	49,830	41,148	+21.1	253	525	-51.8	33,176	35,557	-6.7	13,524	12,007	+12.6	109,732	99,734	+10.0
Ireland	17,163	22,653	-24.2	12,528	10,337	+21.2	26,790	24,983	+7.2	0	0		36,688	36,868	-0.5	27,603	27,214	+1.4	120,772	122,055	-1.1
Italy	59,814	59,472	+0.6	48,093	64,030	-24.9	581,076	527,466	+10.2	136,979	134,448	+1.9	426,037	413,572	+3.0	201,459	256,936	-21.6	1,453,458	1,455,924	-0.2
Latvia	1,160	1,704	-31.9	636	335	+89.9	5,684	5,127	+10.9	371	322	+15.2	5,736	7,545	-24.0	2,503	2,780	-10.0	16,090	17,813	-9.7
Lithuania	1,668	1,923	-13.3	1,489	995	+49.6	12,716	9,956	+27.7	535	422	+26.8	7,439	9,513	-21.8	3,794	3,087	+22.9	27,641	25,896	+6.7
Luxembourg	11,901	10,234	+16.3	3,576	4,441	-19.5	9,706	8,829	+9.9	0	0		12,917	15,414	-16.2	5,464	6,943	-21.3	43,564	45,861	-5.0
Malta	2,055	1,270	+61.8	545	944	-42.3	1,352	1,518	-10.9	0	1	-100.0	2,838	2,544	+11.6	393	612	-35.8	7,183	6,889	+4.3
Netherlands	115,019	102,850	+11.8	49,262	44,770	+10.0	100,331	83,018	+20.9	1,944	2,092	-7.1	76,337	106,698	-28.5	3,622	3,765	-3.8	346,515	343,193	+1.0
Poland	14,824	15,367	-3.5	12,803	11,975	+6.9	223,389	172,048	+29.8	14,211	11,302	+25.7	187,173	180,795	+3.5	43,477	41,428	+4.9	495,877	432,915	+14.5
Portugal	36,615	32,433	+12.9	25,859	24,460	+5.7	31,583	26,862	+17.6	13,659	9,887	+38.2	65,363	67,121	-2.6	16,454	22,225	-26.0	189,533	182,988	+3.6
Romania	8,435	13,159	-35.9	-	-		52,960	39,612	+33.7	14,215	16,257	-12.6	44,628	48,108	-7.2	17,060	14,571	+17.1	137,298	131,707	+4.2
Slovakia	2,131	2,184	-2.4	2,030	2,812	-27.8	25,234	22,600	+11.7	1,622	1,696	-4.4	40,197	39,284	+2.3	15,128	16,507	-8.4	86,342	85,083	+1.5
Slovenia	2,860	3,992	-28.4	1,101	1,105	-0.4	5,285	6,789	-22.2	775	482	+60.8	30,639	25,808	+18.7	9,138	7,942	+15.1	49,798	46,118	+8.0
Spain	48,554	45,715	+6.2	52,248	55,619	-6.1	347,154	275,062	+26.2	30,079	23,281	+29.2	344,543	358,189	-3.8	88,925	109,724	-19.0	911,503	867,590	+5.1
Sweden	83,636	100,695	-16.9	57,316	53,966	+6.2	24,856	21,348	+16.4	5,003	6,354	-21.3	55,199	56,239	-1.8	17,251	21,782	-20.8	243,261	260,384	-6.6
EUROPEAN UNION	1,303,686	1,377,488	-5.4	683,244	742,706	-8.0	2,981,518	2,491,004	+19.7	299,415	296,063	+1.1	3,277,838	3,447,645	-4.9	1,180,348	1,328,947	-11.2	9,726,049	9,683,853	+0.4
Iceland	2,355	7,534	-68.7	1,599	1,696	-5.7	2,043	2,843	-28.1	2	3	-33.3	1,530	1,689	-9.4	1,869	2,327	-19.7	9,398	16,092	-41.6
Norway	102,728	95,631	+7.4	2,896	8,215	-64.7	5,876	6,875	-14.5	9	2	+350.0	915	1,310	-30.2	2,611	2,737	-4.6	115,035	114,770	+0.2
Switzerland	40,517	45,488	-10.9	18,538	20,438	-9.3	71,614	61,756	+16.0	20	67	-70.1	63,197	76,286	-17.2	20,295	21,231	-4.4	214,181	225,266	-4.9
EFTA	145,600	148,653	-2.1	23,033	30,349	-24.1	79,533	71,474	+11.3	31	72	-56.9	65,642	79,285	-17.2	24,775	26,295	-5.8	338,614	356,128	-4.9
United Kingdom	338,314	286,846	+17.9	154,462	129,149	+19.6	643,681	559,233	+15.1	0	0		624,033	720,124	-13.3	51,502	66,610	-22.7	1,811,992	1,761,962	+2.8
EU + EFTA + UK	1,787,600	1,812,987	-1.4	860,739	902,204	-4.6	3,704,732	3,121,711	+18.7	299,446	296,135	+1.1	3,967,513	4,247,054	-6.6	1,256,625	1,421,852	-11.6	11,876,655	11,801,943	+0.6

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 MANUFACTURER

EUROPEAN UNION (EU)

	NOVEMBER					JANUARY-NOVEMBER				
	% share ¹		Units		% change	% share ¹		Units		% change
	2024	2023	2024	2023	24/23	2024	2023	2024	2023	24/23
Volkswagen Group	27.8	26.2	242,194	232,569	+4.1	26.7	26.1	2,599,893	2,526,822	+2.9
Volkswagen	11.7	10.8	101,721	95,377	+6.7	11.0	10.9	1,068,697	1,051,141	+1.7
Skoda	6.8	6.0	58,990	53,362	+10.5	6.2	5.5	603,437	534,362	+12.9
Audi	4.9	5.5	42,355	48,358	-12.4	4.9	5.4	476,416	526,253	-9.5
Seat	1.7	1.9	15,062	16,637	-9.5	2.1	2.0	205,219	193,437	+6.1
Cupra	2.0	1.5	17,149	13,596	+26.1	1.7	1.6	166,581	150,360	+10.8
Porsche	0.7	0.5	6,496	4,813	+35.0	0.8	0.7	74,130	65,388	+13.4
Others ²	0.0	0.0	421	426	-1.2	0.1	0.1	5,413	5,881	-8.0
Stellantis	14.3	15.6	124,188	138,128	-10.1	16.8	18.1	1,630,437	1,756,392	-7.2
Peugeot	5.2	4.4	45,159	38,789	+16.4	5.4	5.5	523,867	532,209	-1.6
Opel/Vauxhall	2.7	2.9	23,332	25,533	-8.6	3.2	3.4	310,249	326,547	-5.0
Citroen	2.6	2.8	22,549	24,844	-9.2	3.1	3.3	303,945	314,822	-3.5
Fiat ³	1.8	3.1	15,845	27,363	-42.1	2.8	3.5	272,512	335,681	-18.8
Jeep	1.1	1.2	9,307	10,231	-9.0	1.1	1.2	111,522	112,110	-0.5
Alfa Romeo	0.5	0.5	4,090	4,153	-1.5	0.4	0.5	38,518	43,746	-12.0
DS	0.3	0.3	2,723	2,701	+0.8	0.3	0.4	33,350	42,426	-21.4
Lancia/Chrysler	0.1	0.5	896	4,012	-77.7	0.3	0.4	31,919	41,848	-23.7
Others ⁴	0.0	0.1	287	502	-42.8	0.0	0.1	4,555	7,003	-35.0
Renault Group	11.7	10.5	101,347	93,539	+8.3	10.8	10.8	1,053,553	1,048,876	+0.4
Renault	6.4	5.5	55,733	49,004	+13.7	5.8	5.9	565,000	567,589	-0.5
Dacia	5.2	5.0	45,362	44,203	+2.6	5.0	4.9	485,311	478,374	+1.5
Alpine	0.0	0.0	252	332	-24.1	0.0	0.0	3,242	2,913	+11.3
Toyota Group	8.4	7.0	73,308	62,506	+17.3	8.0	6.9	781,342	670,353	+16.6
Toyota	7.9	6.6	68,354	58,808	+16.2	7.5	6.5	729,584	632,153	+15.4
Lexus	0.6	0.4	4,954	3,698	+34.0	0.5	0.4	51,758	38,200	+35.5
Hyundai Group	7.3	8.2	63,240	73,011	-13.4	7.9	8.5	766,756	819,667	-6.5
Hyundai	3.6	4.2	31,202	37,357	-16.5	4.0	4.1	388,787	396,212	-1.9
Kia	3.7	4.0	32,038	35,654	-10.1	3.9	4.4	377,969	423,455	-10.7
BMW Group	7.2	7.6	62,972	67,358	-6.5	6.7	6.7	652,763	650,983	+0.3
BMW	6.3	6.2	54,726	55,386	-1.2	5.8	5.5	564,667	530,503	+6.4
Mini	0.9	1.3	8,245	11,972	-31.1	0.9	1.2	88,096	120,480	-26.9
Mercedes-Benz	6.0	5.9	52,158	52,471	-0.6	5.3	5.5	513,968	530,274	-3.1
Mercedes	6.0	5.6	52,058	49,999	+4.1	5.2	5.2	502,861	505,922	-0.6
Smart	0.0	0.3	100	2,472	-96.0	0.1	0.3	11,107	24,352	-54.4
Ford	2.8	3.0	24,504	26,641	-8.0	3.0	3.4	286,943	333,477	-14.0
Volvo Cars	2.7	2.3	23,606	20,839	+13.3	2.6	2.0	257,585	195,474	+31.8
Tesla	2.2	3.6	18,786	31,810	-40.9	2.2	2.6	211,405	249,265	-15.2
Nissan	1.6	2.0	14,230	17,369	-18.1	1.9	1.9	181,904	179,341	+1.4
Suzuki	1.5	1.5	13,134	13,137	-0.0	1.7	1.5	161,444	142,170	+13.6
SAIC Motor	1.4	1.5	12,009	13,031	-7.8	1.4	1.3	137,013	126,980	+7.9
Mazda	1.2	1.4	10,382	12,169	-14.7	1.3	1.4	125,044	133,379	-6.2
Jaguar Land Rover Group	0.6	0.7	5,468	5,885	-7.1	0.6	0.7	57,743	64,021	-9.8
Land Rover	0.6	0.6	4,993	5,153	-3.1	0.5	0.6	52,477	54,419	-3.6
Jaguar	0.1	0.1	475	732	-35.1	0.1	0.1	5,266	9,602	-45.2
Mitsubishi	0.4	0.5	3,462	4,567	-24.2	0.5	0.4	52,791	36,645	+44.1
Honda	0.3	0.4	2,838	3,459	-18.0	0.4	0.3	36,853	30,015	+22.8

¹ ACEA estimation based on total by market

² Bentley, Bugatti, Lamborghini, and MAN

³ Includes Abarth

⁴ Dodge, Maserati, and RAM

NEW CAR REGISTRATIONS BY MANUFACTURER

EU + EFTA + UK

	NOVEMBER					JANUARY-NOVEMBER				
	% share ¹		Units		% change	% share ¹		Units		% change
	2024	2023	2024	2023	24/23	2024	2023	2024	2023	24/23
Volkswagen Group	27.2	25.9	286,552	278,802	+2.8	26.3	25.9	3,119,194	3,051,774	+2.2
Volkswagen	11.2	10.4	117,994	111,990	+5.4	10.6	10.5	1,258,324	1,241,621	+1.3
Skoda	6.5	5.7	68,119	61,917	+10.0	5.9	5.3	700,748	625,848	+12.0
Audi	5.0	5.7	52,576	61,608	-14.7	5.2	5.7	612,540	676,945	-9.5
Seat	1.7	1.8	17,708	19,029	-6.9	2.1	1.9	244,224	227,006	+7.6
Cupra	1.9	1.5	20,115	16,286	+23.5	1.7	1.5	198,615	179,872	+10.4
Porsche	0.9	0.7	9,439	7,359	+28.3	0.8	0.8	97,257	92,211	+5.5
Others ²	0.1	0.1	601	613	-2.0	0.1	0.1	7,486	8,271	-9.5
Stellantis	13.5	14.8	142,425	159,595	-10.8	15.5	16.9	1,843,335	1,990,063	-7.4
Peugeot	5.0	4.2	52,803	45,127	+17.0	5.0	5.1	595,867	599,011	-0.5
Opel/Vauxhall	2.7	3.3	28,492	35,442	-19.6	3.3	3.6	387,360	427,035	-9.3
Citroen	2.4	2.6	25,101	27,774	-9.6	2.8	2.9	335,386	347,495	-3.5
Fiat ³	1.6	2.7	17,092	28,595	-40.2	2.4	3.0	290,354	356,576	-18.6
Jeep	1.0	1.0	10,625	10,762	-1.3	1.0	1.0	121,495	117,577	+3.3
Alfa Romeo	0.4	0.4	4,285	4,402	-2.7	0.3	0.4	40,829	46,620	-12.4
DS	0.3	0.3	2,787	2,874	-3.0	0.3	0.4	34,744	45,492	-23.6
Lancia/Chrysler	0.1	0.4	896	4,012	-77.7	0.3	0.4	31,922	41,856	-23.7
Others ⁴	0.0	0.1	344	607	-43.3	0.0	0.1	5,378	8,401	-36.0
Renault Group	10.6	9.5	111,697	102,263	+9.2	9.7	9.6	1,152,424	1,130,649	+1.9
Renault	5.9	5.1	62,057	54,805	+13.2	5.3	5.2	626,719	615,346	+1.8
Dacia	4.7	4.4	49,352	47,100	+4.8	4.4	4.3	522,013	511,994	+2.0
Alpine	0.0	0.0	288	358	-19.6	0.0	0.0	3,692	3,309	+11.6
Hyundai Group	7.6	8.3	79,744	89,088	-10.5	8.3	8.7	984,541	1,029,588	-4.4
Kia	3.8	4.1	40,152	43,838	-8.4	4.2	4.6	494,725	538,045	-8.1
Hyundai	3.8	4.2	39,592	45,250	-12.5	4.1	4.2	489,816	491,543	-0.4
Toyota Group	8.0	7.0	84,372	75,339	+12.0	7.7	6.9	919,074	817,779	+12.4
Toyota	7.4	6.5	77,793	70,163	+10.9	7.2	6.5	849,628	763,211	+11.3
Lexus	0.6	0.5	6,579	5,176	+27.1	0.6	0.5	69,446	54,568	+27.3
BMW Group	7.9	8.1	83,210	86,914	-4.3	7.1	7.0	839,770	823,160	+2.0
BMW	6.4	6.5	67,783	69,835	-2.9	6.0	5.6	707,527	656,449	+7.8
Mini	1.5	1.6	15,426	17,079	-9.7	1.1	1.4	132,243	166,711	-20.7
Mercedes-Benz	5.9	5.8	62,332	62,255	+0.1	5.3	5.4	629,529	634,692	-0.8
Mercedes	5.9	5.5	62,232	59,642	+4.3	5.2	5.2	617,901	609,426	+1.4
Smart	0.0	0.2	100	2,613	-96.2	0.1	0.2	11,628	25,266	-54.0
Ford	3.1	3.6	32,729	38,784	-15.6	3.3	4.1	395,611	478,350	-17.3
Volvo Cars	2.9	2.5	30,960	26,501	+16.8	2.8	2.2	336,813	256,695	+31.2
Nissan	2.1	2.4	22,294	25,318	-11.9	2.4	2.3	283,207	268,879	+5.3
Tesla	2.5	3.4	26,191	36,563	-28.4	2.4	2.8	282,691	327,635	-13.7
SAIC Motor	1.9	1.9	19,536	20,214	-3.4	1.8	1.7	217,209	204,972	+6.0
Suzuki	1.4	1.5	14,374	15,706	-8.5	1.6	1.5	189,367	172,139	+10.0
Mazda	1.2	1.4	12,381	14,845	-16.6	1.3	1.4	156,770	167,783	-6.6
Jaguar Land Rover Group	1.1	1.2	12,005	12,815	-6.3	1.2	1.1	140,226	133,892	+4.7
Land Rover	1.0	1.0	10,783	10,475	+2.9	1.0	0.9	118,444	110,735	+7.0
Jaguar	0.1	0.2	1,222	2,340	-47.8	0.2	0.2	21,782	23,157	-5.9
Honda	0.4	0.5	4,403	5,473	-19.6	0.6	0.5	70,115	56,121	+24.9
Mitsubishi	0.3	0.4	3,591	4,827	-25.6	0.5	0.3	55,098	38,596	+42.8

¹ ACEA estimation based on total by market

² Bentley, Bugatti, Lamborghini, and MAN

³ Includes Abarth

⁴ Dodge, Maserati, and RAM

New evidence of worsening outlook for electric vehicle market reinforces need for urgent action

13 November 2024

New data from S&P Global reveals a worsening outlook for the EU battery-electric vehicle (BEV) market amid shifting economic conditions. Between the first and second halves of 2024 market expectations significantly evolved, prompting a reassessment of EU trends.

S&P Global data reveals a substantial downward revision in BEV market share forecasts for 2025, from 27% in the first half of the year to 21% today. This recalibration signals a major compliance setback for the EU's 2025 CO2 emission targets, linked directly to the reduced BEV market penetration, stoking concern across EU capitals.

Martin Kupka, Czech Transport Minister: "Without a targeted automotive industrial action plan, we risk falling behind the US and China. The reality check shows that the EU needs to have a more flexible system in place for auto manufacturers to reach the ambitious CO2 reduction targets. We should ensure the industry uses profits to invest into new solutions instead of paying penalties."

A stagnating market significantly increases compliance costs for manufacturers, as the data from S&P Global confirms. For example, to meet emissions targets, they may need to pool credits with Chinese and US manufacturers, directing payments to non-EU manufacturers at the expense of European industry.

Sigrid de Vries, ACEA Director General: "The looming crisis necessitates urgent action. All indicators point to a stagnating EU electric vehicle market, at a time when acceleration is needed. Apart from the disproportionate compliance costs for EU manufacturers in 2025, the success of the entire road transport decarbonisation policy is at risk. We appreciate that several European Commissioners have emphasised regulatory predictability and stability in their confirmation hearings, but stability can't be a goal in itself. Manufacturers have invested heavily and will continue doing so. Europe must stay on course of the green transformation by adopting a strategy that works."

The European Automobile Manufacturers' Association (ACEA) has consistently urged EU policymakers to address the steep compliance costs associated with the 2025 targets, caused to a large extent by factors outside manufacturers' control, such as a lack of widespread charging infrastructure and EV market stimulus. A robust, comprehensive and immediate review of the current approach is essential, given that the current trajectory diverges sharply from earlier projections. In light of recent economic and geopolitical challenges, ACEA calls for urgent cost relief in 2025 and an expedited review of the CO2 standards for both light- and heavy-duty vehicles to safeguard EU industry competitiveness.

New data from S&P Global reveals a worsening outlook for the EU battery-electric vehicle (BEV) market amid shifting economic conditions. S&P Global data reveals a substantial downward revision in BEV market share forecasts for 2025, from 27% in the first half of the year to 21% today.

Notes for editors

- S&P Global revealed its findings at the event 'Decline of EU EV market: myth or real crisis? You can view the event recording [here](#)
- [Year-to-date BEV volumes in the EU have dropped by 5.8% with the total market share falling to 13.1% from 14%](#)
- [Year-to-date BEV volumes in Germany have fallen by a significant 27%](#)

About ACEA

- The European Automobile Manufacturers' Association (ACEA) represents the 15 major Europe-based car, van, truck and bus makers: BMW Group, DAF Trucks, Daimler Truck, Ferrari, Ford of Europe, Honda Motor Europe, Hyundai Motor Europe, Iveco Group, JLR, Mercedes-Benz, Nissan, Renault Group, Toyota Motor Europe, Volkswagen Group, and Volvo Group
- Visit www.acea.auto for more information about ACEA, and follow us on http://www.twitter.com/ACEA_auto or <http://www.linkedin.com/company/ACEA/>

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About the EU automobile industry

- 12.9 million Europeans work in the automotive sector
- 8.3% of all manufacturing jobs in the EU
- €392.2 billion in tax revenue for European governments
- €101.9 billion trade surplus for the European Union
- Over 7% of EU GDP generated by the auto industry
- €59.1 billion in R&D spending annually, 31% of EU total

The Daily Telegraph: Petrol cars 'rationed to meet eco targets'

03/09/2024 16:32



The Daily Telegraph: Petrol cars 'rationed to meet eco targets'

The Daily Telegraph, Tuesday 3rd September 2024: Petrol cars 'rationed to meet eco targets'

Warning comes as consumer demand for expensive electric cars continues to wane.

Car makers are rationing sales of petrol and hybrid vehicles in Britain to avoid hefty net zero fines, according to one of the country's biggest dealership chains.

Robert Forrester, chief executive of Vertu Motors, said manufacturers were delaying deliveries of cars until next year amid fears they will otherwise breach quotas set for them by the Government.

This means someone ordering a car today at some dealerships will not receive it until February, he said.

At the same time, Mr Forrester warned manufacturers and dealers were grappling with a glut of more expensive electric vehicles (EVs) that are "not easily finding homes".

He said: "In some franchises there's a restriction on supply of petrol cars and hybrid cars, which is actually where the demand is.

"It's almost as if we can't supply the cars that people want, but we've got plenty of the cars that maybe they don't want.

"They [manufacturers] are trying to avoid the fines. So they're constraining the ability for us to supply petrol cars in order to try and keep to the government targets."

The chief executive blamed the zero emission vehicle (ZEV) mandate, which requires at least 22pc of cars sold by manufacturers to be electric from this year.

This target will gradually rise each year before reaching 80pc in 2030, with manufacturers made to pay £15,000 for every petrol car that exceeds their quota – unless they have so-called carbon credits to spend. But the scheme has prompted stark warnings from bosses at major brands, such as Vauxhall owner Stellantis and Ford, which have said they cannot sacrifice profits by selling EVs at large discounts indefinitely. Instead, they have previously warned they may be forced to restrict petrol car supplies to artificially boost their ZEV mandate performance.

The warning from Vertu is the first confirmation that carmakers have now begun doing so.

Mr Forrester added that although some people might cheer falling electric car prices, supporters of the ZEV mandate in its current form were "economic buffoons, because car manufacturers are being forced to discount EVs to such an extent that they're making losses... and that is not a good thing for business".

He said: “What the Government’s actually doing is constraining the new car market, which has a big impact on VAT receipts for them, and creates a business environment in the UK where manufacturers may question whether they want to make cars here.

“As Carlos Tavares [chief executive of Stellantis] has said, why should they sell cars at a loss because of UK government policy?

“The new car market is no longer a market, unfortunately. It’s a state-imposed supply chain.”

His comments came as Vertu said it expected lower first half profits as demand for new cars and more expensive electric vehicles remained under pressure. The group, which has 192 showrooms and after-sales sites across the UK, said new car sales by volume fell 5.8pc in the five months to July 31.

By contrast, Vertu says there is strong demand for used cars with September expected to be a particularly busy month.

Mr Forrester’s warning comes after the Society for Motor Manufacturers and Traders (SMMT), which represents car makers, slashed its forecast for electric car sales this year amid the ongoing slowdown in demand.

The group now predicts electric vehicles (EVs) will account for 18.5pc of the new car market in 2024, down from an earlier prediction of 19.8pc.

EV registrations surged higher in July but sales to private consumers continued to slump.

Mike Hawes, chief executive of the SMMT, said the weakening demand for EVs among private consumers – despite heavy discounting by car makers – remained the industry’s “overriding concern”.

Executive summary

Global coal demand is set to reach a new all-time high in 2024...

Global coal demand is expected to grow by 1% in 2024 to an all-time high of 8.77 billion tonnes (Bt). This represents a considerable slowdown in growth from previous years: global coal consumption rose by 7.7% in 2021 as it rebounded from the Covid shock the year before, by 4.7% in 2022 and by 2.4% in 2023. Although industrial consumption also increased over that period, the power sector has been the main driver of coal demand growth, with electricity generation from coal set to reach an all-time high of 10 700 terawatt-hours (TWh) in 2024.

At the regional level, coal demand in China is expected to grow by 1% in 2024 to reach 4.9 Bt, another record. India is poised to see demand growth of over 5% to 1.3 Bt, a level that only China has reached previously. In the European Union and the United States, coal demand continues to fall, but at a significantly slower pace. It is on track to decline by 12% and 5% respectively this year, compared with 23% and 17% in 2023.

... but demand could plateau through 2027, depending on China

After having grown by more than 1.2 billion tonnes since 2020, global coal demand is set to plateau in the next three years, reaching around 8.87 billion tonnes by 2027. Given the slow progress of deploying carbon capture, utilisation and storage (CCUS) technologies in the sector, carbon dioxide emissions from coal are not expected to decline in that period, based on today's policy settings and market trends. While coal demand in advanced economies continues to shrink, this decline is expected to be offset by growth in a few emerging and developing economies, such as India, Indonesia and Viet Nam, where the additional energy demand associated with economic growth is set to be met with a variety of sources, including coal. Despite increasing renewable electricity generation, India is expected to see the largest increase in coal use in the coming years, driven by consumption from the power sector and industry. Still, as has been the case for 25 years, China, which consumes 30% more coal than the rest of the world put together, will continue to define global trends.

Faster growth in electricity use in China is pushing up coal demand there

A third of all the coal consumed worldwide is burned in power plants in China, making the country's electricity sector the main driver of global coal markets. In 2024, China has maintained its focus on diversifying its power sources, continuing to build out nuclear plants and accelerating its massive expansion of solar PV and

wind capacity. The country's hydro sector also experienced a rebound after several years of underperformance. However, electricity demand in China is increasing strongly, growing at a faster rate on average than GDP since 2021. Two major drivers are underpinning power demand growth in China: the electrification of services previously provided by other fuels, such as mobility and industrial heat, and emerging industries such as data centres and AI.

Weather-driven fluctuations overshadow structural changes in the short term

In this report's forecast, the year-to-year changes in global coal demand through 2027 are relatively small, coming in at less than 50 million tonnes (Mt). In India, the country poised to see the largest increase in coal demand, it rises by just over 100 Mt through 2027. In the European Union, coal demand declines by 68 Mt in the same period. In China, analysis of potential variation in coal demand based on weather conditions and their impact on renewable generation indicates demand could be about 140 Mt higher or lower than the base case during the forecast period. This underscores that weather variations are increasingly defining short-term trends, even as structural changes take place at both the regional and global level. Given China's dominant role in world coal markets, weather variations there can be particularly impactful – both at the country level and the global level.

Coal demand is set to continue to shrink in most advanced economies through 2027

Coal demand in most advanced economies peaked a few years ago and is falling, although the trajectory can vary depending on the region or country. In Europe and North America, where coal use has dropped over the past decade, the rate of decline is now slowing. Demand for power from the electricity sector could further slow declines in these regions in the years ahead. Even so, by 2025, the coal consumed in the European Union and the United States combined will be less than half the amount used in India. The closure of the last coal power plant in the United Kingdom in September 2024 was an important symbolic moment for a country where coal had powered the industrial revolution.

Global coal production is also expected to flatten through 2027

In 2024, global coal production is expected to reach an all-time high, surpassing 9 Bt for the first time. The three largest producers – China, India and Indonesia – reached new records for output. China, which accounts for half of global production, is set to see output grow by 1% in 2024, despite declines in the first half of this year amid a safety campaign in Shanxi, the largest producing province. In India, the government is incentivising production from public companies, mainly Coal India, as well as captive and commercial producers. As a result, output is set to rise by over 7%. Indonesian producers, which benefited from strong domestic

coal demand and sustained demand from international markets, are expected to surpass 800 Mt for the first time.

Looking ahead, production in China is set to ease, given abundant stocks and a lack of substantial demand growth. By contrast, production in India is expected to continue to grow, spurred by robust coal demand and government policies to reduce imports. In Indonesia, despite continued strong domestic demand, production is poised to shrink due to weaker international markets for thermal coal. Overall, we expect annual global coal production of close to 9 Bt through 2027. Australia is set to become the fourth largest producer by 2027, surpassing the United States and Russia. Producers in Russia are struggling amid international sanctions, low profitability and infrastructure bottlenecks.

Trade volumes set to reach all-time high in 2024 before receding

International trade of coal by volume is expected to reach a new all-time high in 2024, at 1.55 Bt. All categories are on course to set new records in terms of both growth and overall volume, namely seaborne thermal coal, total thermal coal, seaborne metallurgical coal and total metallurgical coal. In China, despite abundant stocks and lukewarm demand, imports are expected to surpass 500 Mt in 2024. In India, strong demand has kept imports at similar levels as in 2023, despite the country's production push. Viet Nam has surpassed Chinese Taipei as the world's fifth largest importer. Looking ahead, in light of these trends, our models show trade volumes shrinking, with trade in thermal coal seeing the biggest decline. That said, Chinese imports have repeatedly come in higher than expected in recent years.

Reshuffle of trade flows continues as shift to Asia accelerates

More than two years after the European Union banned Russian coal imports and Russian producers shifted exports eastwards, the reshuffle of trade flows continues. It is difficult to know the effect of the extension of US sanctions to some Russian producers, which are also grappling with rail bottlenecks to eastern markets, higher rail tariffs, export duties, and new import duties in some countries such as China. Other factors reshaping trade flows include a resumption of Australian exports into China and security risks to some shipping routes. On top of that, the market's centre of gravity continues to shift increasingly to Asia amid the collapse of demand in Europe. Indonesia has proven again to be the most flexible exporter. After rising above 500 Mt in 2023, Indonesian exports are expected to surpass 550 Mt in 2024. Mongolia has become the second largest metallurgical coal exporter after Australia, although its role in global trade is limited, since all of its exports go to China.

Coal remains profitable as prices stay above pre-crisis levels

The pandemic and associated drop in demand for coal sent prices plunging in 2020, but they subsequently rebounded to record highs – first in October 2021, and then again after Russia’s invasion of Ukraine in 2022. Prices have receded since then, but they are still 50% higher than the average during the 2017-19 period. As of November 2024, the price of imported thermal coal in Europe was around USD 120 per tonne, compared with an average of USD 80 per tonne in 2017-19. For Australian thermal coal, the price today is around USD 140 per tonne, versus USD 90 on average at the end of the last decade.

Coal exporters are making solid profits overall. Russian producers are the main exception. After earning substantial profits in 2022, and to a lesser extent in 2023, many producers have tipped into losses because of increased rail tariffs and other duties, which come on top of the discount at which they must sell their coal due to Western sanctions.

The ownership of export-oriented coal mining capacity is changing

A change in the ownership of export-oriented mines competing in international markets is observable in the last few years. On one hand, some companies which want to reduce their carbon footprint or improve their Environmental, Social and Governance (ESG) credentials are selling coal assets in order to focus on other commodities. On the other hand, a number of companies which have generated significant cash due to large profits since 2021 are doubling down on coal. A recent major move was the acquisition of Elk Valley Resources by Glencore, the largest thermal coal exporter, which also became a major metallurgical coal exporter after the acquisition.

Demand

After a small increase in 2024 to an all-time high, global coal demand is set to flatten through to 2027

In 2023 global coal demand increased to a record 8 687 Mt, marking a 2.5% y-o-y increase. This rise was primarily driven by countries heavily reliant on coal, such as China and India. Additionally, low hydropower output fuelled the demand for coal in power generation, which climbed by 2.5% to 5 855 Mt. Non-power coal use grew by 2.3%, reaching 2 833 Mt.

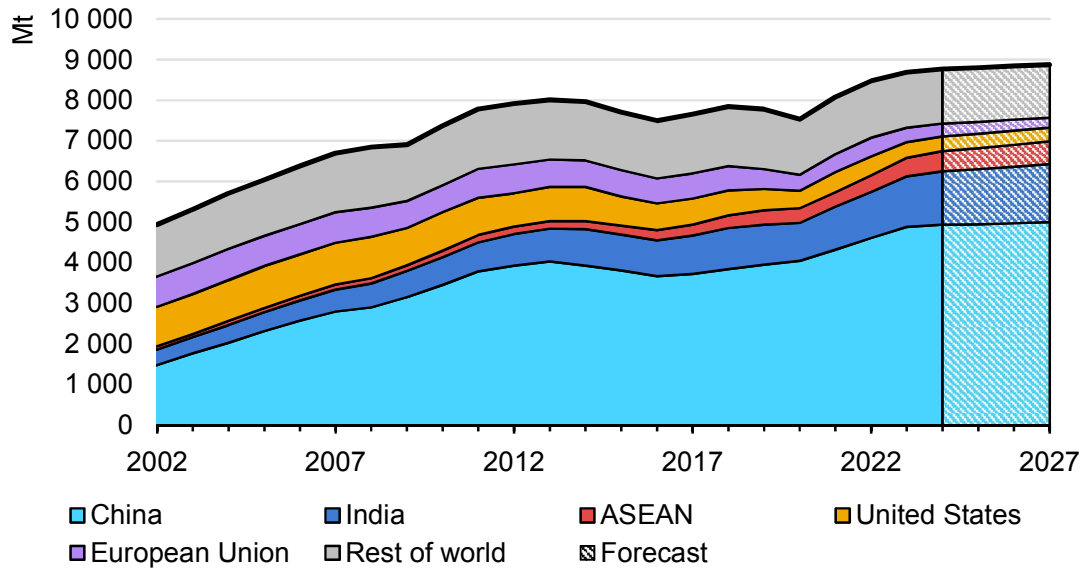
China, the world's largest coal consumer, accounted for over 56% of global demand in 2023. The country's coal consumption increased by 6% to 4 883 Mt, with the power sector accounting for 63% of its coal demand. India, the second-largest consumer, saw a 10% rise in coal demand, reaching a total of 1 245 Mt.

For 2024 global coal demand is projected to grow by 1.0%, setting a new all-time high of 8 771 Mt. The slower coal demand growth in Asia, partially offset by falling demand in advanced economies, results in slower global growth. Global coal demand continues its shift eastward, with China, India and ASEAN countries expected to consume three-quarters of total demand in 2024, a significant increase from around 35% at the start of the century.

In absolute terms, the most significant increases in 2024 are anticipated to have been in India (up 70 Mt, or 6%) and China (up 56 Mt, or 1.1%), together with others like Indonesia and Viet Nam. Conversely, the largest declines are expected to have taken place in the European Union (down 42 Mt, or 12%) and the United States (down 18 Mt, or 5%), with the electricity generating sector the main driver. Forecasts for the Russian Federation (hereafter "Russia"), the fourth-largest coal consumer, remain uncertain due to the ongoing war in Ukraine, which also makes Ukraine's coal outlook unclear.

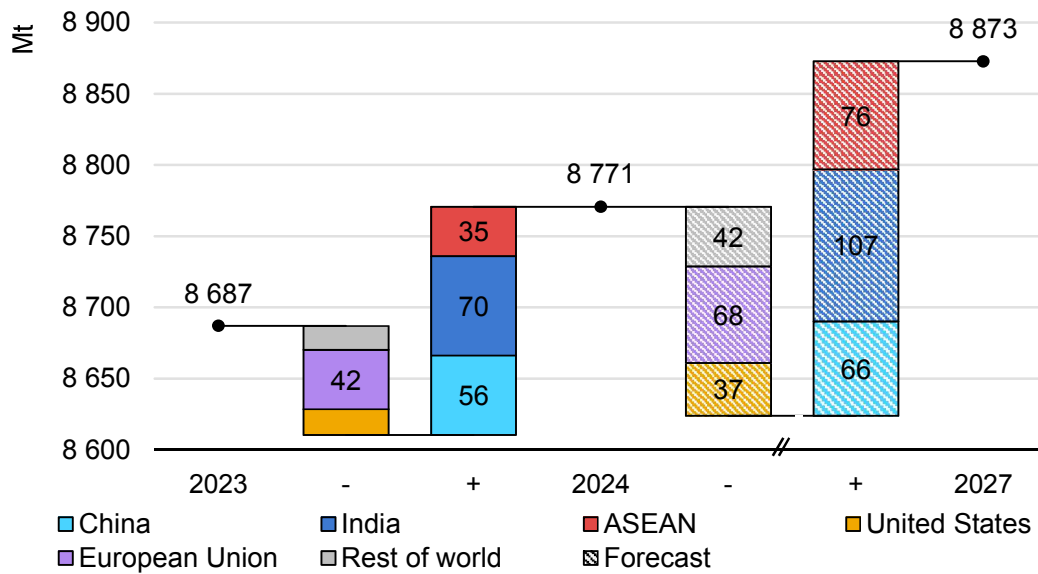
For our forecast period up to 2027 we anticipate coal demand to move in a narrow range. While growth in India and ASEAN countries counterbalance declines in the European Union and the United States, China continues to be the major determinant of global coal demand. In the electricity sector, despite the formidable expansion of renewables, strong electricity demand is expected to keep coal-fired power generation at similar levels to 2024.

Global coal consumption, 2002-2027



IEA. CC BY 4.0.

Change in global coal consumption, 2023-2027



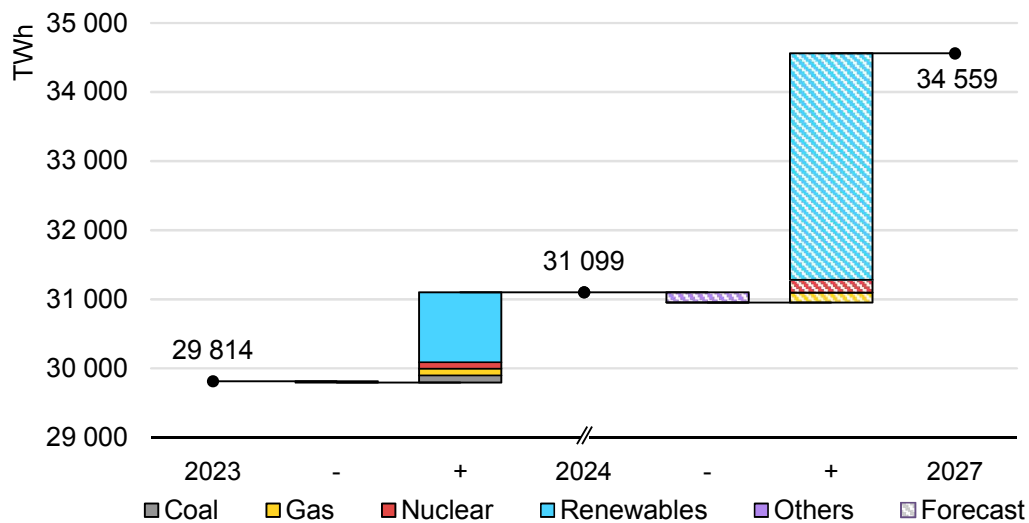
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Coal-fired power generation reaches an all-time high in 2024, then plateaus

In 2023 global coal-fired electricity generation grew by 1.7%, or 175 TWh, corresponding to 192 Mt of coal demand in the power sector.¹ Despite significant growth in renewable generation in 2023 (up 426 TWh), coal-fired power generation remained the largest source of electricity, accounting for over 35% of the total. Regionally, the United States (down 169 TWh) and the European Union (down 133 TWh) recorded the biggest declines in coal-fired power generation in 2023, although this was more than offset by gains in China (up 347 TWh) and India (up 125 TWh). Globally, total power generation grew by 2.4%, reaching a total of 29 898 TWh.

Global electricity generation is expected to have grown by 4.4% in 2024, reaching 31 099 TWh. China and India have once again led the growth in electricity demand. While China is expected to have met this increase primarily through the expansion of renewables, India is forecast to have relied mostly on coal for its additional electricity due to low hydropower availability in the first half of the year. Despite the expansion of renewables, coal-fired power generation in China is expected to record moderate growth of 1.7% for 2024. Global coal-fired power generation is projected to have grown by 1.0%, or 104 TWh.

Change in global electricity generation by source, 2023-2027



IEA. CC BY 4.0.

¹ The rate of growth in coal consumption in the power sector differs from the change in electricity generation for a number of reasons. First, different plants consume coal of different calorific value (CV) at different efficiencies. Second, around one-quarter of coal plants are combined heat and power (CHP) and, therefore, heat provision also plays a role in coal demand. Third, coal-fired power generation includes power generated by coal by-products such as metallurgical gases from steel works, and this is not included in the coal demand for power generation.

For our forecast period through to 2027, we expect global coal demand for power generation to remain stable at around 6 000 Mt. The rapid deployment of low-cost solar PV bolsters the rise in renewable power generation. Nuclear power and gas-fired generation are also projected to see moderate growth, particularly in China and India. The anticipated growth in renewable energy sources, nuclear power and natural gas is expected to align with the projected increase in electricity demand. Consequently, no decline in coal-fired power generation is foreseen.

Given these factors, we anticipate coal-fired power generation to remain at levels similar to 2023 during the 2024-2027 period. Nevertheless, by that time, coal's share of the global electricity mix is expected to drop to just over 31%, the lowest level recorded by the IEA.

No increase in non-power thermal coal and lignite expected through to 2027

Beyond power generation, thermal coal and lignite are used in various activities, such as cement manufacturing and providing heat for industrial and residential purposes. For the analysis in this report, heat supplied by CHP units or central district heating is included in the power sector. In 2023 non-power thermal coal and lignite consumption increased by 2.5%, reaching 1 736 Mt. This accounted for 23% of total thermal coal and lignite consumption for that year.

The majority of this increase was driven by China, where consumption rose to 1 094 Mt, with continuous growth in the coal conversion sector, which aims to reduce oil and gas import dependence. While still a fraction of China's level of consumption, ASEAN countries saw a higher percentage increase, with consumption rising by 13% from 76 Mt to 87 Mt. This exceptional growth was primarily driven by Indonesia, which saw an increase of 9 Mt. Indonesia is strategically boosting its nickel production to meet the global demand for this critical mineral used in battery manufacturing. Since most Indonesian nickel is produced using the rotary kiln-electric furnace (RKEF) process, which relies on coal as both a reductant and an energy source, nickel production is driving the growth of thermal coal consumption in Indonesia. Additionally, coal used for electricity in the process (included in the power sector) and the use of coke (included in the met coal demand) further contribute to the carbon footprint of nickel production.

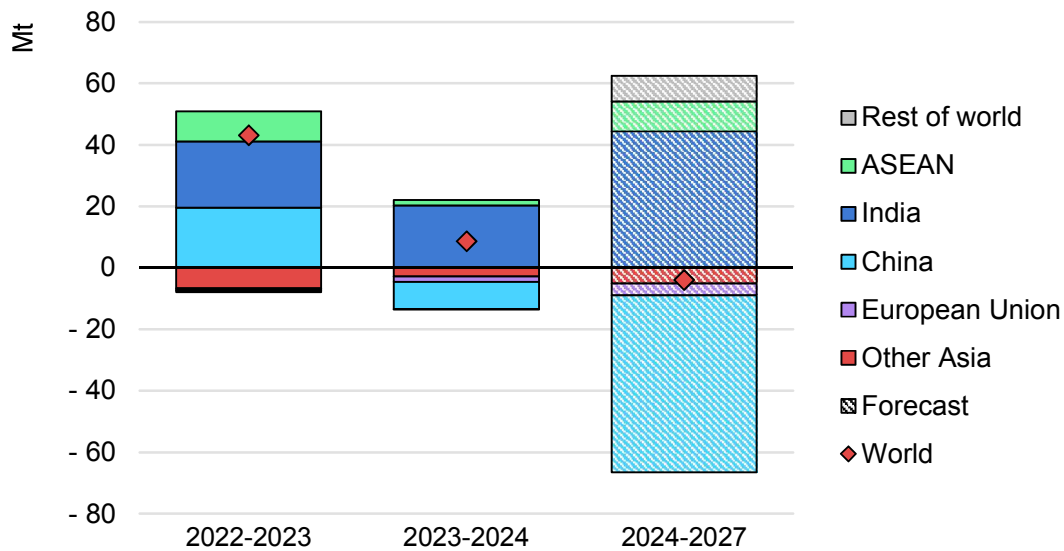
We anticipate a slight increase in the aggregated non-power use of thermal coal and lignite in 2024, driven by gains in India, which are expected to offset declines in other Asian countries and the European Union. In China, efforts to reduce coal consumption for residential heating and small industry, along with weak infrastructure investment affecting cement demand, are likely to dampen non-power coal consumption. However, the coal conversion sector continues to show

significant potential for coal use. Overall, we expect a pronounced decline of 58 Mt in China's thermal non-power coal demand through to the end of 2027.

India's non-power thermal coal and lignite consumption is projected to continue its upward trend, with industrial activity expected to grow by nearly 6% annually over the next three years. We estimate India's consumption increasing by 44 Mt by 2027, and an additional 10 Mt expected from ASEAN countries.

In summary, we project global consumption of thermal coal and lignite for non-power purposes to remain stable, with a slight decline of 4 Mt, or 0.2%, by 2027.

Change in thermal coal and lignite consumption for non-power purposes by region, 2022-2027



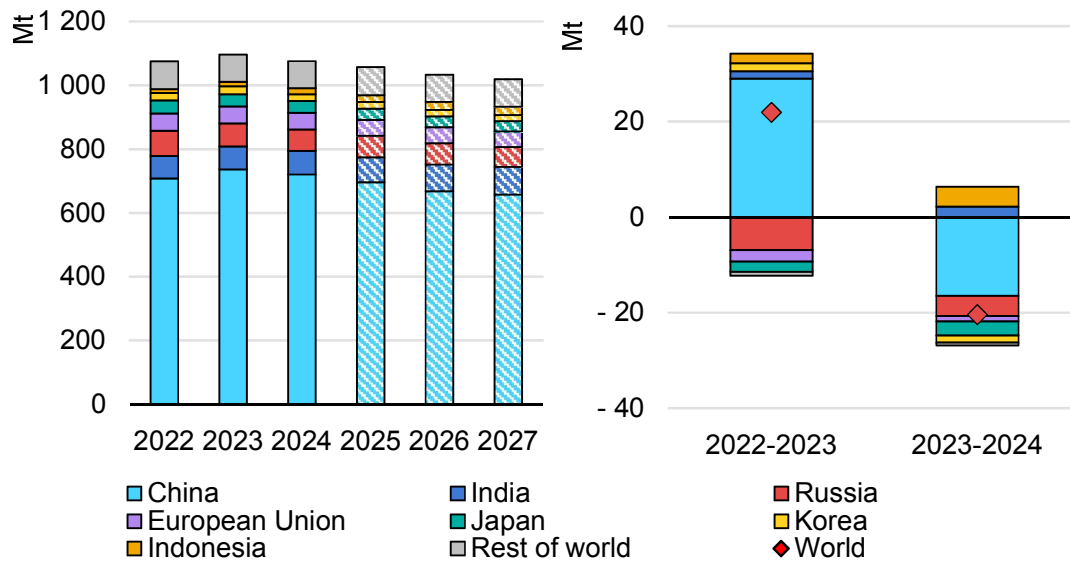
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Met coal demand declines through to 2027

Metallurgical (met) coal is essential for steelmaking. It includes coking coal (hard, medium and semi-soft) and coal for pulverised coal injection (PCI). Coke, produced by heating coking coal in a coke oven without oxygen, is also used in the manufacture of carbides, ferroalloys and other chemical compounds. Our forecast for met coal demand is primarily based on steel production forecasts from organisations such as the World Steel Association, together with expected GDP growth and industrial activity, taking into account the increasing rates of scrap utilisation. In the period until 2027 the adoption of hydrogen and other innovative processes to produce steel without coke is expected to remain limited.

In 2023 global met coal consumption increased by just 2%, or 22 Mt, to 1 097 Mt. The most significant uplift was seen in China, where met coal demand increased by 4.1%, or 29 Mt, to 737 Mt.

Met coal consumption and annual change by region, 2022-2027

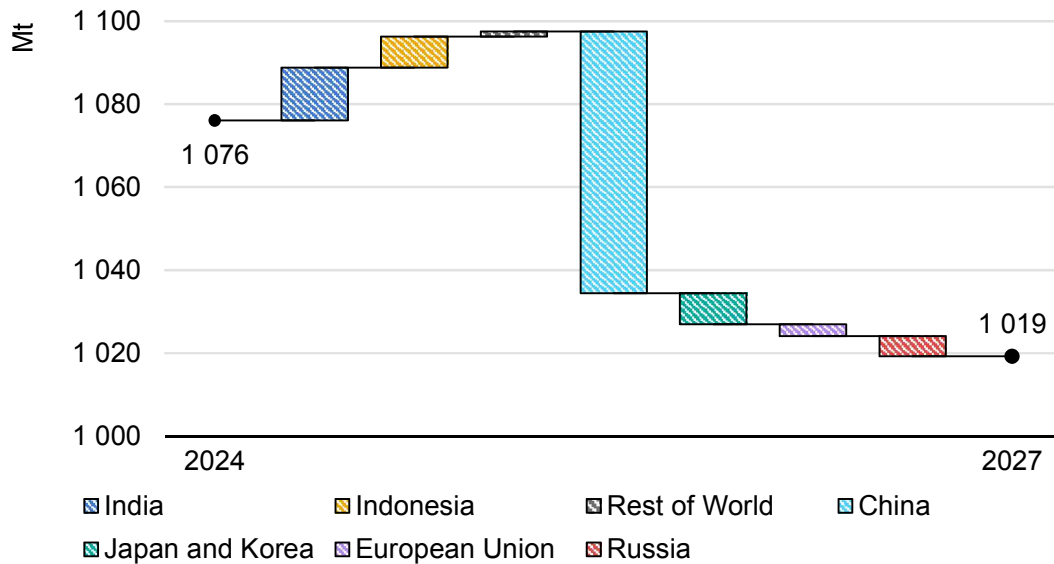


IEA. CC BY 4.0.

In 2024 we anticipate a 1.9% overall reduction in met coal consumption, bringing the total to 1 076 Mt. While China was the main driver of the increase in 2023, it is now expected to lead the decline in 2024 due to lower industrial activity. Although India and Indonesia are projected to consume more coal, their increased demand will not be enough to counterbalance the decrease in China. Indonesia is increasing its coking coal consumption to feed new export-oriented coke ovens. The situation in Russia remains uncertain due to the ongoing war in Ukraine.

Over the next three years we do not anticipate significant changes in met coal consumption, mainly determined by steel demand in line with the economic outlook. Consequently, we forecast a decrease in overall met coal consumption of 47 Mt, standing at 1 019 Mt in 2027 at the end of the three years, with India and Indonesia the only major contributors to growth. India's expected increase of 13 Mt is expected to be offset by a drop of 63 Mt in China over the next three years. Similarly, Indonesia's demand is projected to grow by 8 Mt, while Japan, Korea and the European Union are expected to see a combined decrease of 10 Mt. Additionally, Russia's demand is projected to decline yet further.

Forecast change in met coal consumption by region, 2024-2027



IEA. CC BY 4.0.

Weather uncertainty spills over into the coal demand forecast

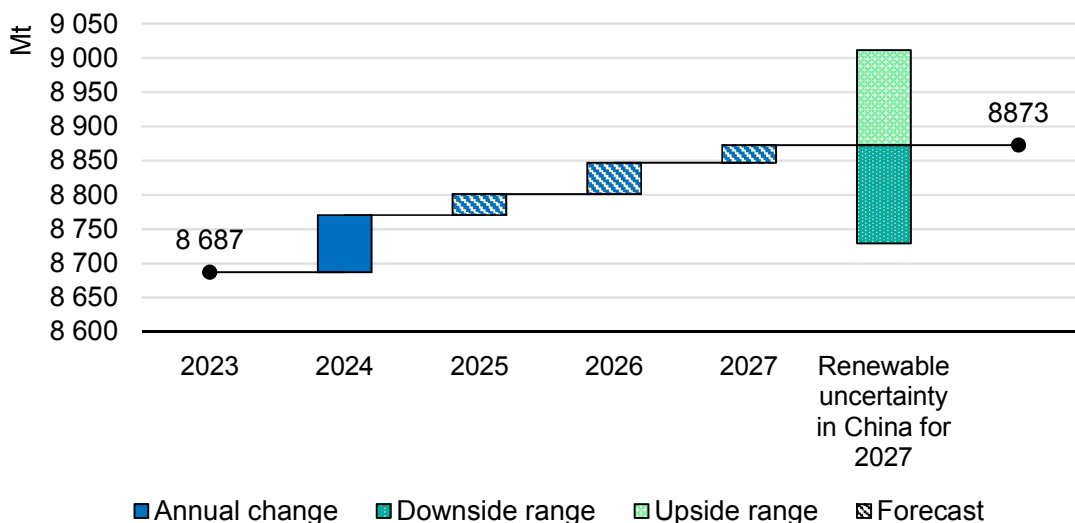
The shift towards renewable energy sources, principally wind and solar PV, introduces short-term uncertainty when forecasting coal demand. The output from wind, solar PV and hydroelectric generation fluctuates with varying weather conditions. In many regions, coal remains the primary power source to balance these fluctuations, resulting in variable coal generation output.

In China, which boasts the world's largest clean energy capacity, the absolute deviations in output may be substantial. As the capacity of wind and solar PV continues to expand rapidly, so the scale of the impact of weather variability on the renewable power generation is expected to increase, leading to greater fluctuations in coal demand.

In the section on China, we analyse the uncertainty of coal demand from the impact of weather conditions on renewable generation. Analysing historical records, we conclude that with the continuing expansion of renewables in China, coal as the main balancing source could see its demand moving in a range of 282 Mt (143 Mt up or 139 Mt down) by 2027 if weather conditions change the capacity factor of wind, PV solar and hydro from those considered in the forecast. This range of 282 Mt uncertainty represents 3.2% of the forecast global demand of 8 873 Mt. Of course, coal is not the only potential provider of additional electricity in China, but given its scale compared with other available sources of additional electricity, the simplification is valid. Moreover, this only considers

uncertainty on the electricity supply side – weather also has a major impact on electricity and/or heat demand, which can further drive coal demand. Given the magnitude of this range of uncertainty, we observe that the impact on global coal demand of weather variations in China has the ability to surpass structural developments in other regions for any given year. A similar analysis can be conducted for India, where weather conditions also have an impact on coal consumption, but the scale of China’s coal consumption is unmatched by any other country.

Forecast change in global coal consumption, 2024-2027, and uncertainty range due to Chinese renewable generation



IEA. CC BY 4.0.

China

Coal demand in China remains strong through to 2027

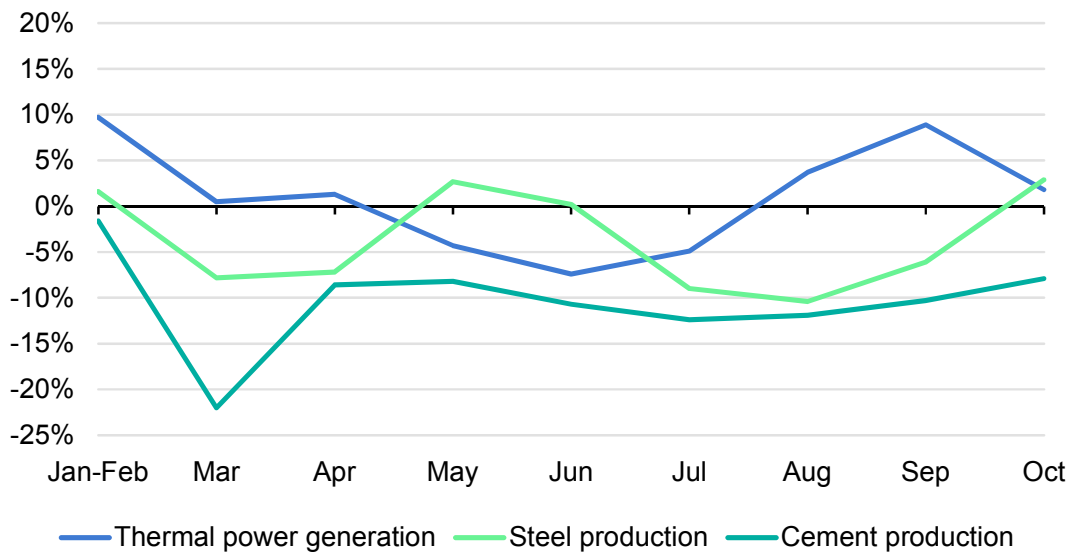
China, the world’s largest coal consumer, used 4 883 Mt of coal in 2023, marking a 6% y-o-y increase and accounting for 56% of global coal consumption. The majority (85%) of this consumption was thermal coal, amounting to 4 146 Mt, primarily used for power generation. The remaining 737 Mt was met coal.

The power sector is the primary driver of China’s coal consumption. We anticipate demand from coal-fired power plants to have increased by 2.7% in 2024. With non-power thermal coal consumption declining slightly, we estimate 1.7% growth in total thermal coal consumption in China, reaching 4 219 Mt in 2024.

After stable economic performance in 2023, China is encountering economic challenges due to weak consumer demand and the ongoing real estate crisis. The IMF projects GDP growth of 4.8% in 2024, which is 0.4 percentage points lower than the previous year. Met coal consumption is anticipated to decline, with steel production falling by 3.7% year-on-year in the first ten months of 2024. This downturn is attributed to sluggish construction activity, as the housing market faces challenges. For 2024 we estimate a 2.2% decrease in met coal consumption to 720 Mt.

These anticipated changes in demand mean that China is once again on track to set a record for total coal consumption, with an estimated usage of 4 939 Mt in 2024.

Y-o-y percentage change in three economic indicators, China, January-October 2024



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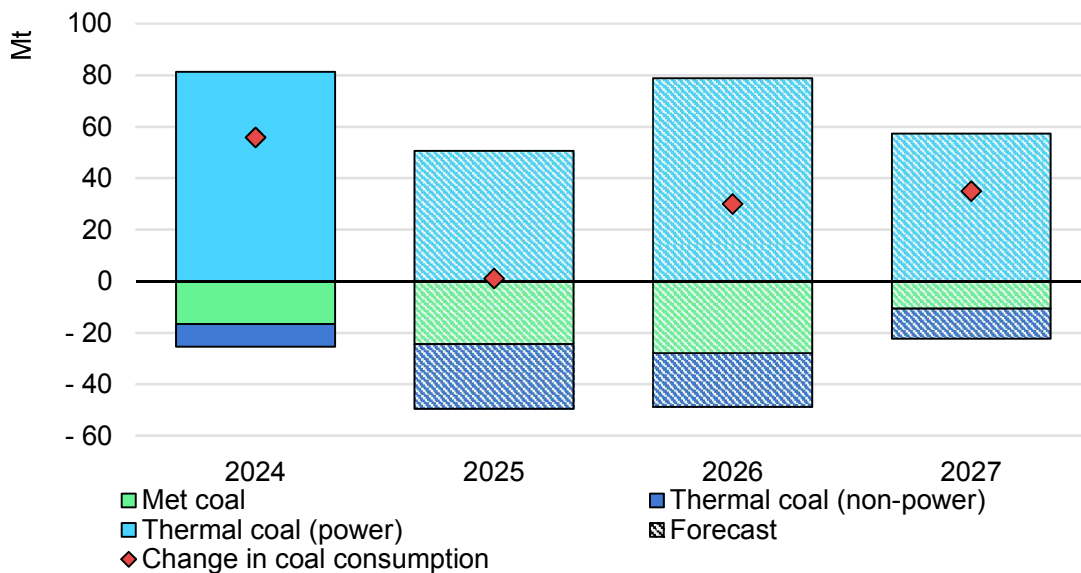
Source: IEA analysis based on National Bureau of Statistics of China (2024), [Statistical Database](#).

Our forecast for China’s coal consumption over the next three years is closely linked to developments in the power sector, which is the country’s largest coal consumer and accounts for one-third of global coal demand. In a country where more than half of primary energy comes from coal, overall economic growth and industrial production are also significant factors. Our estimate centres on the expected increase in electricity demand. Increased renewable generation is projected to cover this additional demand, primarily driven by accelerated solar PV deployment and a rebound in precipitation towards the historical average in 2024, boosting hydropower generation. Our forecast assumes that hydropower production aligns with historical data.

Despite the push for renewables, coal will continue to satisfy most of the existing demand, as increases in renewable electricity generation primarily address additional electricity demand. We anticipate coal-fired power generation to slightly increase between 2024 and 2027, with strong growth of electricity demand (6% per year on average) during the period. For 2027 the consumption of steam coal for electricity and heat production is estimated at 3 321 Mt, which corresponds to an annual growth below 2% through to 2027.

At the same time, met coal consumption is projected to decrease between 2024 and 2027. Furthermore, the outlook for thermal coal used outside power generation is expected to deteriorate, with industrial declines overshadowing growth in the conversion sector. The coal conversion sector in China operates on a much larger scale compared to other regions and will be pivotal in shaping future coal trends. As a result, we project a very slight growth in Chinese coal consumption (below 0.5% per year on average), totalling 5 005 Mt by 2027. The coal conversion sector is fraught with uncertainty but holds considerable upside potential.

Annual change in coal consumption by grade and use in China, 2024-2027



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Robust electricity demand supports strong coal-fired power generation in China for longer

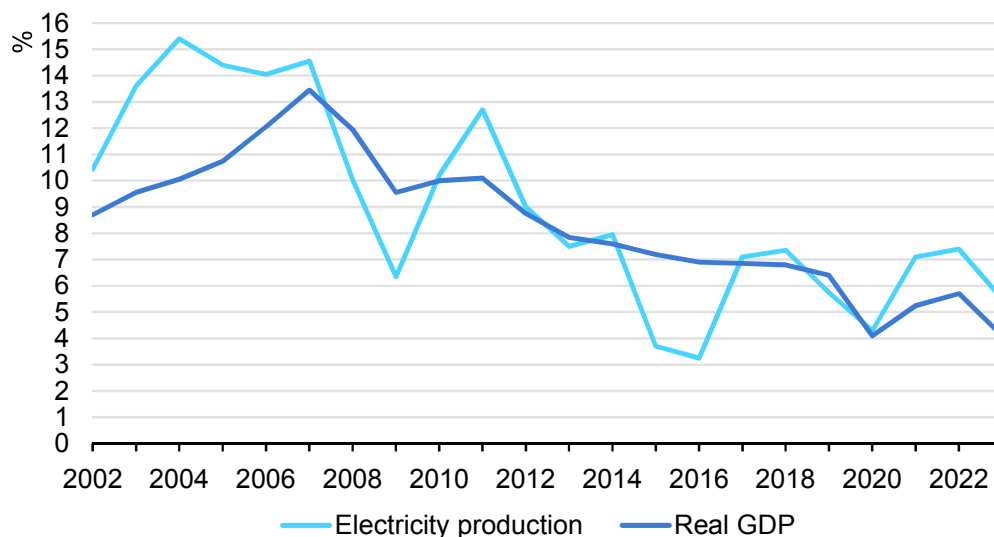
In 2023 coal maintained its dominance as the primary energy source for electricity generation in China, with an installed capacity of approximately 1 170 GW generating 5 884 TWh. Power plants accounted for about 74% of China's thermal coal demand

and roughly 63% of its total coal demand. Therefore, the Chinese electricity sector is the main driver of China’s coal demand and consequently global coal demand.

Historically, electricity production and real GDP growth have moved in tandem, primarily driven by industrial activity. However, significant construction activity prior to the 2008 financial crisis caused deviations, as this sector is more energy and electricity intensive than the average for all economic activity. Consequently, during 2000-2007 average electricity growth rates exceeded real GDP growth rates. From 2008 until 2020 the service sector gained share, resulting in less electricity-intensive economic growth. Since 2021 electricity demand has outpaced real GDP growth again, fuelled by rising demand from a variety of sectors, including clean energy manufacturing, mobility and heating electrification, AI and data centres. Additionally, residential consumption has also been growing faster than the average rate, in particular demand for cooling.

In the past, diversification from coal in the electricity sector focused on hydro and nuclear. More recently, wind and especially solar PV have been surging at a rapid pace. However, despite the rapid growth of renewables, coal-fired power generation remains resilient, supported by the strong demand for electricity. In addition, coal is considered a pillar of electricity security, as confirmed by the response to past power shortages caused by a combination of coal supply issues, insufficient generation capacity and inefficient dispatch incentives. In 2021-2022 a large share of China’s coal capacity was retrofitted: 150 GW was retrofitted to increase efficiency, 190 GW was retrofitted to increase flexibility and improve management of the system with increasing variable renewables, and 145 GW was retrofitted to improve the provision of heat.

Two-year moving average of growth in real GDP and in electricity production, 2002-2023



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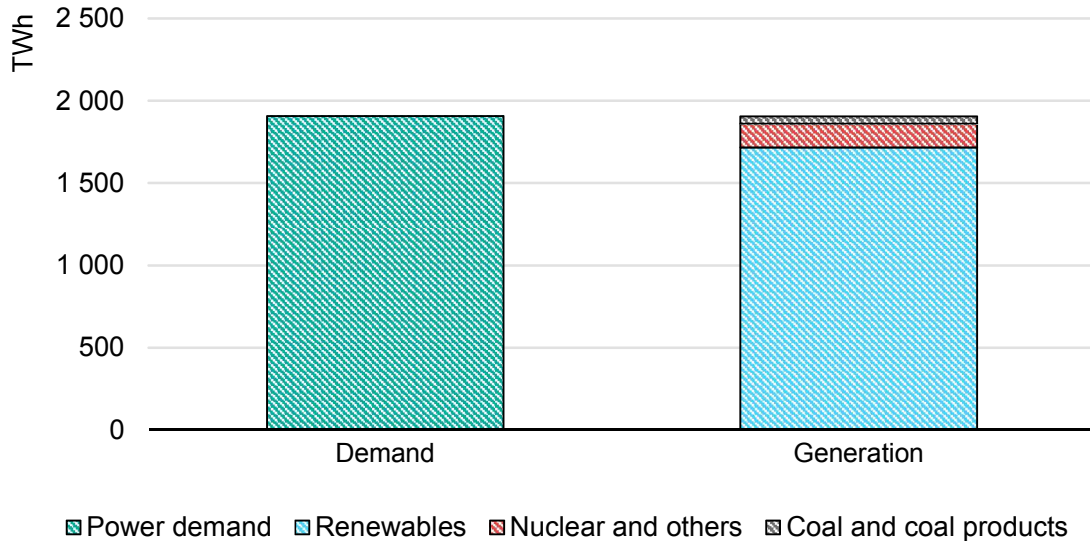
Alongside the push for renewables, with 216 GW of solar PV and 76 GW of wind capacity added in 2023, China has been expanding its coal-fired power plant fleet to ensure resource adequacy. During 2022-2023 China approved around 220 GW of new coal-fired power capacity. Acting on this, it began construction of 70 GW in 2023 and an additional 41 GW in the first half of 2024. However, in the first half of 2024 China approved only 9 GW of new coal capacity, signalling the end of the rush for new approvals. At the same time, the surge in renewable energy is expected to reduce the average utilisation rate of coal-fired power plants. To address this, in 2023 the Chinese government announced capacity payments for coal-fired power plants to ensure capital recovery regardless of their load factor.

We expect growth in China's coal-fired power generation to have slowed in 2024 compared to 2023, when severe droughts in the first half of the year significantly affected hydropower availability, thus boosting coal-fired power output. We estimate electricity demand to have surged by 7.2% in 2024, surpassing 10 295 TWh, and coal-fired power generation to have increased by 1.7% to 5 984 TWh. That corresponds to increased thermal coal consumption of 2.7%, reaching 3 134 Mt in 2024. Roughly half of the coal fleet is CHP and therefore coal demand is not totally determined by electricity generation as heat provision also plays a role. The surge in electricity demand can be partially attributed to significant growth in the residential sector, spurred by heatwaves in August and September, which were the most intensive since 1961. There are other drivers, such as the clean energy manufacturing sector – which saw a substantial year-on-year increase of 36.2% in the first three quarters – as well as data centres and AI.

For the period to 2027 we assume that hydro availability will remain at the 2024 level after several years of underperformance, and the accelerating growth in wind and solar capacity will yield significant results. Additionally, we expect steady increases in nuclear generation. Together these meet most of the new demand anticipated until 2027, leaving the remainder for coal. We estimate coal volumes for electricity and heat generation in coal plants to grow slightly between 2025 and 2027, to 3 321 Mt in 2027. In July 2024 the government issued the “Action Plan for Low-Carbon Transformation of Coal-fired Power Generation (2024-2027)” in order to reduce emissions from coal-fired power generation through biomass or ammonia co-firing or carbon capture, utilisation and storage (CCUS). There is no detail yet on how much capacity will be retrofitted, but given the size of China's coal fleet and the government's commitment to CO₂ emissions peaking before 2030, we expect the plan to mobilise significant resources. Consequently, coal demand for power generation may be subject to change. At this stage, it is difficult to make an assessment of the plan's impact on coal demand. CCUS retrofits would increase coal consumption given the energy losses associated with the process of capture and storage. By contrast, ammonia and biomass co-firing would decrease coal consumption in the plants opting for that solution. In any case, an assessment of the impact will be possible only when detailed plans are

announced. Retrofitting works are likely to start by the second half of 2025, and therefore their impact should be noted from 2027.

Forecast change in electricity demand and generation, China, 2024-2027



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Uncertainty about short-term coal demand increases as renewable generation grows

The recent acceleration in electricity consumption in China and the installation rate of renewable capacity are key factors in determining the structural evolution of coal demand for power generation. In the short term, however, fluctuations in renewable generation significantly affect coal-fired power generation and, consequently, coal demand. As renewable energy sources replace coal, it is important to note that our calculations for load factors are based on representative weather conditions. Fluctuations in factors such as precipitation, wind speed and solar irradiation will have an increasing impact on the balance of energy production as the share of renewables grows. In addition, demand remains also weather-dependent due to events such as cold snaps and heatwaves. All of these factors influence the utilisation of coal-fired power plants, which typically act as the default electricity supplier in China.

To illustrate the impact of weather-driven variability in renewable generation on coal consumption in China, we have examined the variation in historical load factors for renewables (left graph below) driven by weather conditions, and translate this into the hypothetical coal consumption needed to offset the higher or lower electricity generation (right graph below). Hydropower, solar PV and wind

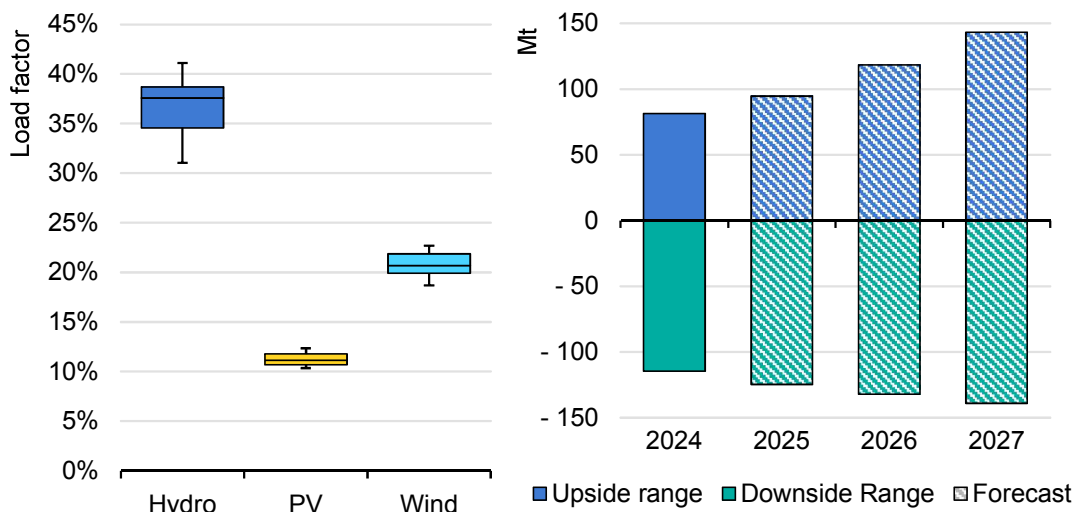
power all show fluctuations in their annual historical load factors. Over the past 20 to 30 years, observations indicate that in China hydro has a spread of 10 percentage points between its minimum and maximum load factors; for wind and solar, we have normalised historical data using plus and minus 1 percentage point for solar PV and plus and minus 2 percentage points for wind.

When renewable load factors are lower than average, other energy sources, almost entirely coal in China, must compensate. Given China’s substantial renewable capacity, these fluctuations significantly affect coal consumption. In our subsequent analysis, we assume that coal-fired power plants will balance different hypothetical load factors, based on the renewable capacity assumed for 2024-2027.

The findings indicate that under the weakest combined performance of hydro, wind and solar observed since 2000, coal consumption for power generation could be over 143 Mt higher in 2027 compared with our forecast. Conversely, the maximum load factor for renewables observed in those years could result in around 139 Mt less coal use than in our forecast.²

The analysis highlights the significant uncertainty that weather effects impose on coal consumption in a given year. Note that the analysis only considers the supply side of electricity; the weather’s impact on electricity demand is another crucial factor influencing coal consumption.

Load factor of renewables and hypothetical effect on coal consumption in China



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Notes: (left) Hydro load factor based on 1990-2023 data; PV and wind load factors based on 2000-2023 data. The top and bottom edges of the boxes represent the 75th and 25th percentiles, respectively. The lines inside the boxes represent the medians; (right): Hypothetical coal use represents volumes that would be consumed if minimum and maximum levels of combined load factors of renewables apply. We assume coal consumption of 0.44 Mt per TWh of electricity.

² Our analysis shows that the weakest renewables performance would occur if the meteorological conditions of 2011 were to be repeated, while the strongest output would happen under 2001 conditions.

After seeing growth in 2023, China's thermal non-power demand declines slightly

In 2023 China's thermal coal consumption for non-power uses increased by 1.8% y-o-y to 1 094 Mt, representing 22% of the country's total coal consumption. Coal consumption in sectors beyond power and steel remains substantial in China despite an over decade-long effort to shift from coal to alternative energy sources, such as gas and electricity, to reduce air pollution from small, inefficient and outdated coal boilers. The country continues to use coal across various industries, including food, textiles and paper. Nevertheless, we expect coal use in small industry and residential heating to continue declining in the coming years as the shift away from coal progresses.

Switching to alternative fuels in cement production is challenging due to fuel accounting for a high proportion of total production costs. Consuming over 200 Mt of coal annually, it is the largest industrial consumer of thermal coal. Cement production in China appears to have peaked in 2020 at 2.4 billion tonnes and has declined significantly since then. In 2024 production is set to fall below 2 billion tonnes for the first time since 2010. In the first three quarters of 2024 production fell by 10.7% y-o-y. The contraction of China's construction sector is likely to further affect cement production and its demand for coal throughout the forecast period, as this trend seems structural.

The coal conversion sector has remained a significant driver of growth in thermal non-power applications in 2024. Given these developments, we estimate thermal non-power coal consumption to have narrowly decreased to 1 085 Mt in 2024. Looking ahead to 2027 we expect declines in industrial and heating applications to more than offset growth in the coal conversion sector, leading to a 5% reduction in thermal non-power coal consumption, down to 1 027 Mt.

Strong but uncertain growth is expected in China's coal conversion sector

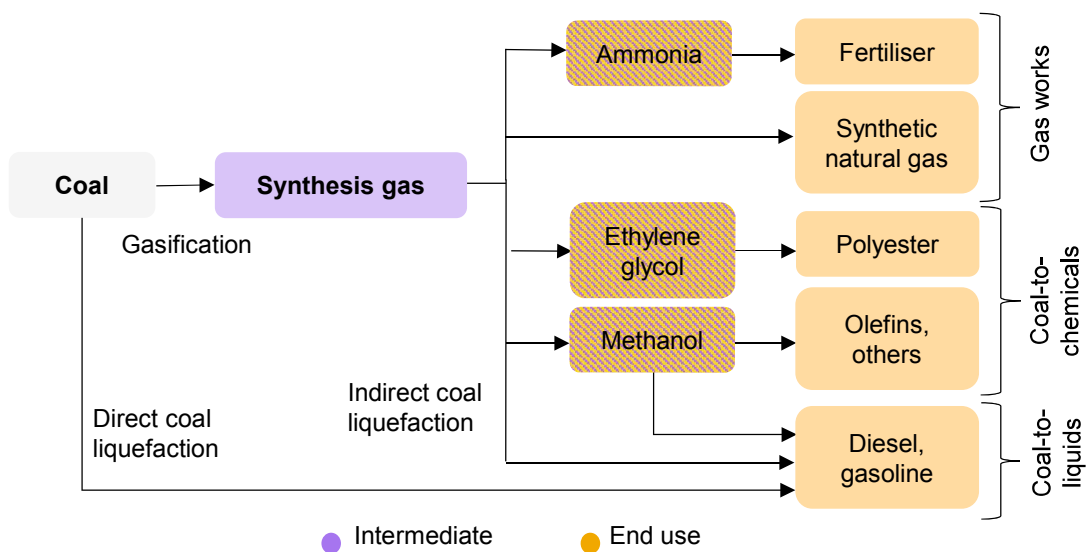
Coal conversion involves using coal as the basis to produce other commodities, typically through coal gasification. This process is usually categorised into coal-to-liquids, gas works and coal-to-chemicals. For more than a decade China has considered coal conversion a strategy to reduce dependence on overseas energy sources amid increasing oil and gas imports. This approach also supports domestic coal assets, particularly those stranded due to quality or location, and promotes local employment. However, these processes are typically energy inefficient, water- and CO₂-intensive, and their profitability is highly volatile, depending on the price of competing fuels like oil and gas. Nonetheless, there has been significant technological progress in these processes over the past decade.

Coal-to-liquids (CTL) involves producing liquid fuels like diesel or gasoline from coal, either through direct liquefaction by hydrogenation or indirect liquefaction³ via synthesis gas and the Fischer-Tropsch process. In 2022 China used 40 Mt of coal to produce approximately 11 Mt of oil products. Further CTL projects are in the pipeline, although their progress is unclear. In October 2024 China Energy Investment (CHN Energy) initiated the construction of a CTL project in Hami city, Xinjiang, with an investment of around USD 24.1 billion. The first phase is slated for completion and operation by the end of 2027. Upon completion, the project has a target capacity of 4 Mtpa of CTL products, comprising 3.2 Mt from direct liquefaction and 0.8 Mt from indirect liquefaction, in total using around 16 Mt of coal per year.

Gas works primarily produce synthetic natural gas (SNG) and fertilisers. In China ammonia for fertilisers is mainly produced using synthesis gas from coal gasification, unlike in other countries. In 2022 it is estimated that China produced 48 Mt of ammonia from coal. New projects announced in Xinjiang and Inner Mongolia could consume an additional 85 Mt per year if they are completed.

Coal-to-chemicals (CTX) is the most dynamic sector, involving the gasification of coal to synthesis gas, which is then processed into products like methanol or ethylene glycol. In 2022 it is estimated that 80 Mt of methanol was produced. It is often converted into olefins for plastics production, while ethylene glycol is used for polyester and other materials.

Key process routes of the coal conversion sector in China



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³ Smaller volumes of liquid fuels are produced with other technologies, such as coal tar hydrogenation.

General annex

Tables

Table 1: Total coal consumption (Mt), 2023-2027

Region/country	2023	2024	2025	2026	2027	2022-23	2023-24	CAAGR 2024-2027
Asia Pacific	7100	7246	7308	7384	7461	6.1%	2.1%	1.0%
China	4883	4939	4940	4970	5005	6.0%	1.1%	0.4%
India	1245	1315	1363	1392	1422	10.0%	5.6%	2.6%
Japan	166	155	146	141	135	-10.1%	-6.3%	-4.5%
ASEAN	457	491	520	544	567	9.8%	7.6%	4.9%
North America	417	398	377	368	355	-16.1%	-4.7%	-3.7%
United States	386	368	351	343	331	-17.2%	-4.7%	-3.5%
Central and South America	51	50	47	44	42	-1.2%	-0.8%	-6.0%
Europe	555	510	494	463	419	-16.3%	-8.1%	-6.3%
European Union	354	312	293	273	244	-22.6%	-11.8%	-7.9%
Eurasia	368	366	373	382	385	-0.2%	-0.4%	1.7%
Africa	185	191	193	198	203	-3.8%	3.1%	2.0%
Middle East	11	9	9	8	8	-0.4%	-14.6%	-6.3%
World	8687	8771	8801	8847	8873	2.5%	1.0%	0.4%

Notes: CAAGR = compound average annual growth rate. Data for 2023 are preliminary; 2024 are estimated; 2025 to 2027 are forecasts.

Table 2: Thermal coal and lignite consumption (Mt), 2023-2027

Region/country	2023	2024	2025	2026	2027	2022-23	2023-24	CAAGR 2024-2027
Asia Pacific	6192	6353	6434	6531	6619	6.5%	2.6%	1.4%
China	4146	4219	4244	4302	4348	6.3%	1.7%	1.0%
India	1173	1241	1284	1308	1335	10.6%	5.7%	2.5%
Japan	126	119	111	107	104	-11.5%	-5.9%	-4.5%
ASEAN	433	463	487	509	530	9.8%	6.9%	4.7%
North America	396	378	357	348	336	-16.9%	-4.6%	-3.9%
United States	371	354	335	328	317	-17.8%	-4.7%	-3.6%
Central and South America	32	32	28	26	24	0.1%	0.1%	-10.0%
Europe	493	448	434	404	361	-17.4%	-9.1%	-7.0%
European Union	301	260	242	223	195	-25.2%	-13.5%	-9.1%
Eurasia	288	290	298	306	313	2.4%	0.6%	2.5%
Africa	182	188	189	194	199	-3.9%	3.1%	1.9%
Middle East	7	5	4	4	3	-16.9%	-23.5%	-12.4%
World	7590	7695	7745	7813	7853	2.6%	1.4%	0.7%

Notes: CAAGR = compound average annual growth rate. Data for 2023 are preliminary; 2024 are estimated; 2025 to 2027 are forecasts.

<https://www.msn.com/en-ca/money/topstories/exclusive-trump-transition-team-plans-sweeping-rollback-of-biden-ev-emissions-policies/ar-AA1vWwja?ocid=BingNewsSerp>

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Exclusive-Trump transition team plans sweeping rollback of Biden EV, emissions policies

Story by Jarrett Renshaw and Chris Kirkham

• 2h • 4 min read



FILE PHOTO: A Tesla electric vehicle is plugged to a charger in a parking lot in Teia, north of Barcelona, Spain, October 31, 2023. REUTERS/Albert Gea/File Photo© Thomson Reuters

By Jarrett Renshaw and Chris Kirkham

(Reuters) - Incoming U.S. President Donald Trump's transition team is recommending sweeping changes to cut off support for electric vehicles and charging stations and to strengthen measures blocking cars, components and battery materials from China, according to a document seen by Reuters.

The proposals came from a Trump transition team charged with crafting a strategy for swift implementation of new automotive policies. The team also calls for eliminating the Biden administration's \$7,500 tax credit for consumer EV purchases, a plan that Reuters first reported last month. The policies could strike a blow to U.S. EV sales and production at a time when many legacy automakers, including General Motors and Hyundai, have recently introduced a wider array of electric offerings to the U.S. market.

Cutting government EV support could also hurt sales of Elon Musk's Tesla, the dominant U.S. EV seller. But Musk, who spent more than a quarter-billion dollars helping to elect Trump, has said that losing subsidies would hurt rivals more than Tesla.

The transition team calls for clawing back whatever funds remain from Biden's \$7.5 billion plan to build charging stations and shifting the money to battery-minerals processing and the "national defense supply chain and critical infrastructure."

"When he takes office, President Trump will support the auto industry, allowing space for both gas-powered cars and electric vehicles," Leavitt said in a statement.

ALLOWING MORE TAILPIPE POLLUTION

Automakers globally have been shifting toward electric vehicles in part to comply with stricter government limits on climate-damaging tailpipe pollution.

But the transition team recommendations would allow automakers to produce more gas-powered vehicles by rolling back emissions and fuel-economy standards championed by the Biden administration. The transition team proposes shifting those regulations back to 2019 levels, which would allow an average of about 25% more emissions per vehicle mile than the current 2025 limits and average fuel economy to be about 15% lower.

The proposal also recommends blocking California from setting its own, stricter vehicle-emissions standards, which more than a dozen other states have adopted. Trump barred California from setting tougher requirements during his first term, a policy that Biden reversed.

California has asked the U.S. Environmental Protection Agency for another waiver to incorporate a stronger set of requirements beginning in 2026, which would eventually require all vehicles to be electric, plug-in hybrid or hydrogen-powered by 2035. The Biden administration's EPA has not approved California's request.

Many of the transition-team proposals appear aimed at encouraging domestic battery production, primarily for defense-related interests. Others appear aimed at protecting automakers, even those producing EVs, in the United States.

The proposals include:

- Instituting tariffs on "EV supply chain" imports including batteries, critical minerals and charging components. The proposal viewed by Reuters said the administration should use Section 232 tariffs, which target national security threats, to limit imports of such products.

The Biden administration recently increased tariffs on Chinese imports of several mentioned in the Trump-transition document, including lithium-ion batteries, graphite and "permanent magnets" used in EV motors and military applications. Those tariffs were issued on economic rather than security grounds.

- Waiving environmental reviews to speed up "federally funded EV infrastructure projects," including battery recycling and production, charging stations and critical mineral manufacturing.

- Expanding export restrictions on EV battery technology to adversarial nations.

- Providing support for exports of U.S.-made EV batteries through the Export-Import Bank of the United States.

- Using tariffs as a “negotiating tool” to open foreign markets to U.S. auto exports, including EVs.
- Eliminating requirements that federal agencies purchase EVs. A Biden policy requires all federal acquisitions of cars and smaller trucks to be zero-emission vehicles by the end of 2027.
- Ending DOD programs aimed at purchasing or developing electric military vehicles.

(Reporting Jarrett Renshaw in Philadelphia and Chris Kirkham in Los Angeles; Editing by Brian Thevenot and Matthew Lewis)



Foreword from the Head of Clean Power 2030

Cleaning up our power system has long been understood as central to decarbonising the whole economy. With a clean electricity supply, the electrification of heat, transport and industry open up as routes to net zero. But the wider benefits of clean power have also become clearer. In Britain, we have pioneered policies to grow renewable industries, attract investment and deploy clean energy technologies at a scale that was once thought impossible. There is now a route to more stable energy bills for households and businesses, as they increasingly go electric. We have also experienced the harsh repercussions of Britain's over-reliance on fossil fuels, which left us badly exposed to the cost of globally traded oil and gas in the wake of recent global insecurity.

Achieving clean power is now a broader goal, key to a growing economy, our national security and improving our standards of living. We should be in a hurry to achieve it.

This year, Britain closed its final coal-fired power station, completing a successful transition from the most polluting energy source. Clean power by 2030 is our next milestone, but it requires us to act with much

greater urgency. Britain has some of the world's greatest clean energy resources, but we have planning and consenting processes that are far too slow to build the infrastructure needed to exploit them. That must change.

NESO's recent analysis shows the pipeline of projects needed for clean power by 2030. Their pragmatic advice is that security of power supply can be provided if we maintain

Britain's fleet of gas power stations but reduce their use to no more than 5% of total generation. That clarifies the task: build the grid that Britain needs, overturning decades of delay; install clean sources of power at a pace never previously achieved; identify the energy mix needed for the 2030 power system and reorder the connection queue to achieve it; develop a flexible system that can accommodate and store Britain's renewable resources; deliver these benefits to consumers, people, households, and businesses as swiftly as possible.

This requires a mission-focus – industry and government working in partnership at pace. The steps in this Action Plan will reform planning and consenting processes, contract new renewable power generation at the scale required, encourage long-duration energy storage and first-of-a-kind flexible clean capacity and open the path to clean power and new opportunities for consumers to save.

For the first time, we will have eyes on a programme of clean power investment estimated to be around £40 billion per year for the next 6 years. That visibility allows a more active focus on removing the barriers to its achievement, supporting greater coordination of supply chains, with more UK-based production, and ensuring there are trained workers to meet the requirements across the country. This is the real prize, ensuring we are ready to meet the growth in electricity demand that we expect over the 2030s and 40s.

Britain's clean power mission is now underway.

Foreword by Chris Stark

Head of Clean Power 2030



Summary

Clean Power by 2030 will herald a new era of clean energy independence and tackle three major challenges: the need for a secure and affordable energy supply, the creation of essential new energy industries, supported by skilled workers in their thousands, the need to reduce greenhouse gas emissions and limit our contribution to the damaging effects of climate change. Clean power by 2030 is a sprint towards these essential goals.

We have accepted independent advice from the National Energy System Operator (NESO), on the energy infrastructure required to deliver Clean Power 2030. In a typical weather year, the 2030 power system will see clean sources produce at least as much power as Great Britain *consumes* in total over the whole year, and at least 95% of Great Britain's *generation*; reducing the carbon intensity of our generation from 171gCO₂e/kWh in 2023¹ to well below 50gCO₂e/kWh in 2030.

The path to 2030

Successful delivery will require rapid deployment of new clean energy capacity across the whole of the UK, reflecting the shared renewable ambitions of the UK, Scottish and Welsh Governments. In this plan, we are accepting government's central role in steering the creation of this new energy system, setting our expectations for the 2030 capacities of key technologies at national and regional level.

We have high ambition. That means 43-50 GW of offshore wind, 27-29 GW of onshore wind, and 45-47 GW of solar power, significantly reducing our fossil-fuel dependency. These will be complemented by flexible capacity, including 23-27 GW of

¹ Department for Energy Security and Net Zero (DESNZ) (2024), '[Digest of UK Energy Statistics \(DUKES\) 2024](#)' (viewed in December 2024).

battery capacity, 4-6 GW of long-duration energy storage, and development of flexibility technologies including gas carbon capture utilisation & storage, hydrogen, and substantial opportunity for consumer-led flexibility².

In line with the NESO advice, this new capacity must be underpinned by the rapid delivery of 80 network and enabling infrastructure projects, most of which are already at an advanced stage of planning and development.

Over the period to 2030, security of supply will be protected with the maintenance of an expected 35 GW of unabated gas reserve capacity.

Growing our clean energy system in this way will see once-in-a-generation levels of energy investment – an estimated £40 billion³ on average per year between 2025-2030, spreading the economic benefits of clean energy investment throughout the UK with the collaboration of the Scottish and Welsh Governments. These investments will protect electricity consumers from volatile gas prices and be the foundation of a UK energy system that can bring down consumer bills for good. Every choice we make will be scrutinised to maximise the impact it can have in reducing consumer bills.

The new industries and employment opportunities created by the huge investment ahead will also ensure there are lasting economic benefits from clean power throughout the country.

Delivering Clean Power 2030 also paves the way to decarbonising the wider economy by 2050 as we pursue the electrification of heat in buildings, transport, and industry. By 2050, annual electricity demand is likely to at least double. Clean power by 2030 prepares us for the rapid growth in power demand expected over the 2030s and 40s.⁴

Actions we are taking to accelerate delivery

To hold to our path to 2030, we know that the government must take radical action, quickly. This document sets out our first major steps towards clean power, in partnership with the Scottish and Welsh Governments, industry and the public:

Electricity Networks and connections

We need to reform the grid connections process and reduce the queue to connect, working with NESO and Ofgem to provide a framework through which NESO can work with Transmission Owners (TOs) and Distribution Network Operators (DNOs) to prioritise projects needed for 2030, while maintain a robust pipeline beyond 2030. Around twice as much new transmission network infrastructure will be needed in the nation's grid by 2030 as has been built in the past decade⁵.

² These voluntary offers of flexibility by energy consumers (whether households or industries) can also be referred to as demand side response (DSR) or demand flexibility.

³ Undiscounted, 2024 prices. This includes £30bn investment in generation assets, and £10bn investment in transmission network assets. See the Technical Annex for more detail on how this was calculated.

⁴ Department for Business, Energy & Industrial Strategy (BEIS) (2022), '[Electricity networks strategic framework, Appendix 1 – Electricity Networks Modelling](#)' (viewed in December 2024).

⁵ National Energy System Operator (NESO) (2024), '[Clean Power 2030](#)' (viewed in December 2024).

Regulatory reform will ensure Clean Power 2030 is better integrated into planning and decision making, so investment can be made ahead of need and the time taken to build and deliver network projects can be reduced in line with 2030 requirements. This includes working with Ofgem to explore the appropriateness of tightening the incentives and penalties on electricity transmission owners and distribution network operators to drive the acceleration of network delivery. The Scottish and Welsh Governments are considering how their planning and consenting regimes will also integrate with Clean Power 2030.

An improved planning and consenting environment will accelerate the expansion and upgrade of transmission and distribution networks. We will consult on expanding planning consent exemptions to include low-voltage connections and upgrades in England, and engage with MHCLG on opportunities to provide further flexibilities for the consenting of electrical substations. It is essential that we engage effectively and thoroughly with communities that will host new transmission network infrastructure, so they can be a part of the change to our system and benefit from it.

The Scottish Government will shortly consult on the refresh of its Good Practice Principles for community benefits for onshore and offshore net zero energy infrastructure. The government's view is that communities that host clean energy infrastructure should benefit from it. As a first step, we will publish guidance to increase the quantum and consistency of Community Funds and support the launch of industry public communications campaigns to encourage public awareness on the importance of networks infrastructure in supporting net zero.

Planning and consenting

With a prioritised grid queue, we can signal key projects for clean power and speed up planning and consenting processes across Britain. We will ensure communities directly benefit from hosting new clean energy infrastructure. We know that the majority of 2030 clean power projects are already in the pipeline, and so there is therefore a major opportunity in rewiring the planning system and unblocking bottlenecks to ensure projects can receive timely decisions so they can get building.

We will do this first by upgrading the planning system itself, equipping organisations with the flexibility they need to manage the increased caseload it faces. This includes workforce reform and development as well as a commitment to reviewing resourcing within the system.

Next, we will ensure the system can prioritise 2030-critical projects. We will make 2030 a core priority in updated planning policy vehicles and guidance. We have brought onshore wind back in to the Nationally Significant Infrastructure Project (NSIP) regime. We will bring forward a Planning and Infrastructure Bill with measures to streamline the delivery of critical infrastructure in the planning process, and convene community, nature, and industry groups on complex projects to stress-test them prior to application. In line with Lord Banner's recommendations, we will also progress work exploring changes to the legal challenge process for major infrastructure projects.

We will ensure that a reformed planning system enhances the restoration of nature. We will do this by delivering the Marine Recovery Fund for Offshore Wind and are considering strategic mitigation approaches for onshore infrastructure in England. The UK government and the Scottish Government

are also working together to establish a similar Marine Recovery Fund for projects in Scotland.

Devolved administrations are taking positive steps towards speeding up energy infrastructure planning and consenting too. In Wales, the Infrastructure (Wales) Act 2024 sets out the new consenting process for significant infrastructure projects, replacing multiple consenting processes in Wales with a single process. In Scotland, work is underway to secure the pipeline of future planners and increase skills and capacity within planning authorities. We are working closely with the Scottish Government on reform to deliver a streamlined and efficient legislative framework for electricity infrastructure consenting.

Renewable and nuclear project delivery

Addressing blockages to networks, connections and planning progress will significantly help us deliver the renewable capacity we need for 2030. But there are specific issues to address.

The Contracts for Difference allocation process needs to meet our 2030 ambitions and put an end to the stop-start failures of recent years. We need high levels of renewables to protect consumers and they need to be secured at the best price. Offshore wind has a particularly important role as the backbone of the clean power system.

Following discussions with industry and subject to further assessment, we are minded to implement a package of targeted reforms. We will consider changes to the information the Secretary of State can use to inform the final budget for fixed-bottom offshore wind, an auction schedule to improve transparency and predictability, and review auction parameters, including our approach to the reference prices used to estimate the budgetary impact of bids. To maximise the competitive process, we are also minded

to relax eligibility criteria for fixed-bottom offshore wind projects so projects that have yet to obtain full planning consents can participate. We will consult on these changes ahead of Allocation Round 7.

We will leverage Great British Energy, and wider policy measures to support local and community-led renewable capacity, including for homes, businesses, public buildings and land, and shared spaces. Great British Energy will provide support to deliver the Local Power Plan, putting local authorities and communities at the heart of restructuring our energy economy. It will also align with NESO's publications and the government's response to identify locations for new generation projects on private land and undertake development on public land, unlocking scope for generation on government estates.

Solar panels are already an eligible measure in existing programmes like the Warm Homes Local Grant and Warm Homes Social Housing Fund, and we will provide further details on how else solar could be supported in the Warm Homes Plan after the second phase of the Spending Review. We will also assess the potential to drive the construction of solar canopies on outdoor carparks through a call for evidence next year.

We are also committed to nuclear, as well as the development of emerging low carbon and renewable technologies that will play an important role beyond 2030, continuing to recognise that the policy of the Scottish Government is not to support new nuclear developments in Scotland.

Electricity market reform

Reforming the electricity markets will support clean power generation and networks. Reform is vital in ensuring our market arrangements are fit for the 2030s and beyond. We must ensure that the market works in tandem with support schemes to deliver the right investment and operational

signals and that any sector-specific barriers to deployment are addressed, to enable the huge volume of deployment that will underpin Clean Power 2030.

A significant increase in short-duration flexibility of 29-35 GW⁶ across battery storage, consumer led flexibility and interconnection capacity from 2023 levels will reduce the amount of more costly generation and associated network infrastructure that needs to be built, whilst maintaining security of supply. Reforming the transmission network charging (Transmission Network Use of System (TNUoS) charges) is critical in order to enable the increased deployment of future generation.

The REMA Autumn Update outlines our ambition to conclude the policy development phase of the REMA programme by around mid-2025 and confirms that the timetable for REMA decisions will align with the timetable for the next allocation round (AR7) for the Contracts for Difference (CfD) scheme in order to reduce uncertainty.

Short-duration energy storage and flexibility

As we build an energy system reliant increasingly on variable renewables, improving the flexibility of the wider electricity system is key. A Low Carbon Flexibility Roadmap will be published next year, with new actions to drive clean power flexibility by 2030. We will introduce new market reforms to provide batteries and consumer-led flexibility with appropriate and fair access to, and utilisation within, relevant markets, and we will consult on how grid-scale batteries could be referenced in future planning reforms, and on including grid-scale batteries within the Environmental Permitting Regulations.

We will consider financing options for retrofit works, including batteries, in the Warm Homes Plan in England. We will consult to remove external display requirements for device meters from the Measuring Instrument regulations, and, in Summer 2025, we will publish a consultation on consumer engagement, including on how to help coordinate and amplify accurate messaging on consumer-led flexibility. We will also consider reform on the Maximum Resale Price and will introduce new Guaranteed Standards of Performance relating to smart metering in 2025.

We will respond to recent consultations on Energy Smart Appliance interoperability, a new licensing regime for service providers for consumer-led flexibility and load controllers, and tariff data accessibility. These will be followed up with detailed consultations on draft 'first phase' Energy Smart Appliance legislation, establishing minimum cyber security requirements for appliances in scope and a smart mandate for heat pumps; draft consumer-led flexibility service providers and load controller regulations and licence conditions, and measures to improve time of use tariff data accessibility. We will implement Capacity Market policy proposals, including permitted augmentation of storage, adjustments to Extended Performance Testing Requirements and making 3-year Capacity Markets agreements to low carbon technologies requiring no capital expenditure.

Long-duration flexibility

We are projected to need 40-50 GW⁷ of dispatchable and long-duration flexible capacity in 2030 to support our power system in extended periods of low renewable output. We are determined

⁶ See Table 1. This is the difference between the current capacity of batteries, interconnectors, and consumer-led flexibility, and capacities in 2030 under the DESNZ 'Clean Power Capacity Range'. Differences in total figures are due to rounding.

⁷ The sum of with low carbon dispatchable power, unabated gas, and LDES capacities in Table 1, rounded to the nearest 5GW. Dispatchable technologies are ones which combust fuel to produce electricity and, by varying the rate at which fuel is burned, can respond to meet the needs of the grid with varying levels of flexibility.

to drive the development of low carbon long-duration flexibility, which presents a substantial opportunity. We have announced Final Investment Decision for Net Zero Teesside, the world's first at scale gas power plant with carbon capture, and we are also developing a Hydrogen to Power business model which will de-risk investment and bring forward capacity. We also need to scale up deployment of pump storage hydropower and foster further innovation in more nascent long-duration storage technologies such as liquid air energy storage. The cap and floor scheme, which could open in Q2 2025, will support investment in the sector. Unabated gas will continue to play a back-up role throughout the transition to clean power, ensuring security of supply. This means that we will retain sufficient capacity until it can be safely replaced by low carbon technologies.

Supply chains and workforce

Clean power by 2030 is a signal to investors to locate in the UK and build strong domestic supply chains for key aspects of our clean power system. Actions to support and accelerate delivery will give developers greater route-to-market certainty, but we will go further, including with the forthcoming Industrial Strategy, which will include a sector plan for clean energy industries. We will convene a new supply chains and workforce industry forum for key Clean Power 2030 sectors, including trade unions, to develop a deep understanding of system-level supply chain and workforce planning needs for Clean Power 2030 delivery and devise targeted collective actions to ensure they are met. The Clean Industry Bonus will support manufacturing in coastal and energy communities and cleaner, more sustainable supply chains, while increased transparency and predictability in future Contracts for Difference allocation rounds will support investment. The National Wealth Fund will focus at least £5.8 billion of its capital on green hydrogen, carbon capture, ports, gigafactories, and green steel, while Great

British Energy will support the growth of clean power supply chains around the UK.

The clean power transition also needs a skilled workforce, with thousands of new jobs throughout low carbon sectors. Details of the Clean Energy Skills Challenge have been published alongside this Plan. The Office for Clean Energy Jobs will work with the sector, trade unions and the devolved governments to support regions transitioning from carbon-intensive industries to clean energy sectors, to ensure jobs are high quality, with fair pay, favourable terms, and good working conditions. This work includes targeted interventions to reskill and upskill workers across the economy, supporting access to training schemes, and promoting the opportunities of clean energy jobs so that a lack of skilled workers does not become a bottleneck in the achievement of our Clean Power ambition.

How we will work, as government and with everyone involved, to deliver

The Clean Power 2030 Unit will look across delivery of the key 2030 projects, working to identify blockages and ensuring that the clean power programme stays on track.

To do this we will draw together a mix of skills and experience from government and the clean power sector, underpinned by an Advisory Commission of leading figures from across industry and academia. The Unit will work closely with those involved in practical delivery, including the devolved governments, to cut through issues quickly and to build a comprehensive view of the power infrastructure currently in development.

This insight, coupled with a strong underlying data capability that will bring together data and insight from across government and the clean energy sector, will help understand what is likely to be delivered, by when, and quickly identify emerging challenges. This will help the Unit take rapid action wherever it is needed to ensure delivery.

This Action Plan is our first major step towards Clean Power by 2030. The coming months and years will see a new programme of activity emerge, relying on the work of a wide range of businesses, many parts of government at central, regional and local level across England and the Devolved governments, the third sector, communities, and individuals.



Chapter 5: Electricity

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Key headlines

Electricity demand decreased in 2023 to 316.8 TWh, down by 1.1 per cent from 2022, to levels last seen in the 1980s. This was likely driven by a continuation of 2022's high prices and similarly high annual average temperatures which reduced demand for heating.

High energy and other prices and high average temperatures led to the lowest domestic consumption since 1990, with industrial and commercial consumption also down. Domestic consumption fell 3.0 per cent to 92.6 TWh while industrial consumption was down 0.9 per cent and commercial consumption was down 2.9 per cent.

Electricity generation fell by a tenth in 2023 as record electricity imports, lower UK demand and lower exports compared to 2022 reduced the UK generation needed to meet demand. Electricity generation fell to 292.7 TWh, 9.9 per cent lower than 2022. The UK returned to being a net electricity importer as total imports rose to a record 33.3 TWh and total exports fell back to 9.5 TWh, giving net imports of 23.8 TWh.

Renewable generation in 2023 was similar to 2022, narrowly reaching a record 135.8 TWh, 0.3 per cent higher than 2022. Wind generation rose 2.2 per cent to a record 82.3 TWh and solar generation rose 4.1 per cent to a record 13.9 TWh. This was driven by increases in wind and solar generation capacity which offset slightly less favourable weather conditions. Bioenergy generation decreased 4.9 per cent to 34.1 TWh, as outages continued at key bioenergy sites.

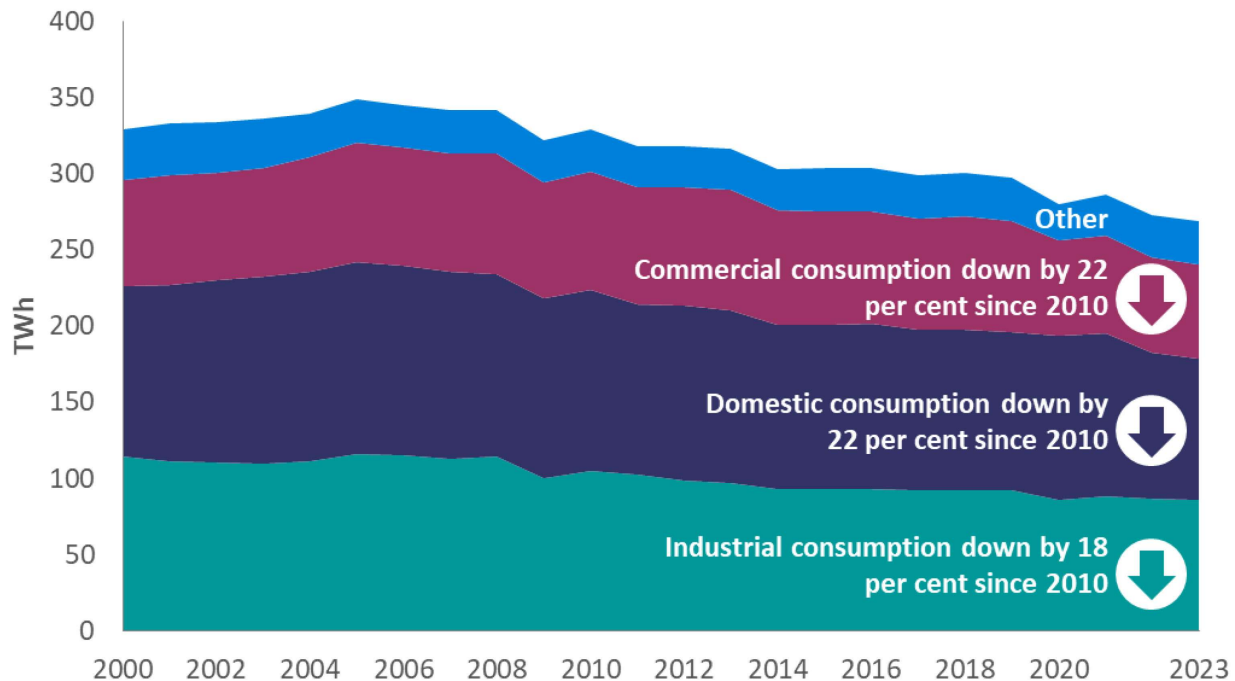
Fossil fuel generation decreased by a fifth in 2023 to 107.3 TWh. Gas remained the largest single fuel, providing 101.7 TWh of generation. Coal generation continued to fall, down to a record low.

The share of generation coming from low carbon sources rose to a record 60.3 per cent in 2023, as stable renewable generation combined with lower overall generation. The lower total generation also helped the renewable generation share to a record 46.4 per cent, exceeding the share from fossil fuels (36.7 per cent) for the third time in four years.

Total de-rated generation capacity decreased to 74.8 GW in 2023, 2.6 per cent lower than in 2022. Capacity for renewable technologies increased by 4.0 per cent to 25.6 GW, fossil fuel capacity decreased 6.8 per cent to 40.5 GW with the closures of three of the UK's four remaining coal-fired power stations, Drax, West Burton and Kilroot.

Electricity demand reached a record low in 2023 of 316.8 TWh, down by 1.1 per cent from 2022 as high energy prices and other costs, as well as warmer than usual temperatures, continued into 2023. Electricity demand has declined year-on-year since 2015, apart from a slight increase between 2020 and 2021 as demand recovered from the effects of the Covid-19 pandemic. In line with the decrease in demand, final consumption fell by 1.2 per cent compared to 2022. 'Final consumption' refers to electricity consumption by end users, excluding electricity consumed in the process of generation and transmission or distribution losses.

Chart 5.1 Electricity consumption by sector, 2000 to 2023 ([DUKES Table 5.1](#))



Continued high prices and higher average temperatures led to the lowest domestic consumption since 1990, with industrial consumption also decreasing. In 2023, domestic consumption fell 3.0 per cent compared to 2022 to 92.6 TWh while industrial consumption was down 0.9 per cent. The low domestic consumption followed continued higher energy and other prices alongside near record high temperatures.

Commercial consumption fell by 2.9 per cent in 2023, with the moderate increase in commercial activity outweighed by continued high prices. Higher average temperatures continued from 2022, which reduced the demand for electricity for heating.

Total electricity demand is larger than electricity consumption. This is because total demand also accounts for electricity consumed in the process of generation or to produce fuel for generation, as well as for electricity lost in transmission or distribution from where it is generated to where it is consumed. The full breakdown of electricity demand is shown below.

Announcement

Urgent Need for Resources over 10-Year Horizon as Electricity Demand Growth Accelerates, 2024 LTRA Finds

December 17, 2024

WASHINGTON, D.C. – Trends identified in NERC’s [2024 Long-Term Reliability Assessment](#) (LTRA) highlight critical reliability challenges that industry is facing over the next 10 years: satisfying escalating energy growth, managing generator retirements and removing barriers to resource and transmission development. As a result, well over half of the continent is at elevated or high risk of energy shortfalls over the next 5 to 10 years.

While generator retirement plans continue over the next 10 years, electricity demand and energy growth are climbing rapidly. New data centers, which have the potential to consume enormous amounts of power and can be built relatively quickly, are driving much of the explosive demand growth. Electrification in various sectors and other large commercial and industrial loads, such as new manufacturing facilities and hydrogen fuel plants, are factoring into higher demand forecasts.

“Demand growth is now higher than at any point in the last two decades, and meeting future energy needs in all seasons presents unique challenges in forecasting and planning,” said Mark Olson, NERC’s manager of Reliability Assessments. “Meanwhile, announced generator retirements, over the 10-year period total 115 GW and are largely being replaced by variable generation. The resulting mix of resources will be able to serve energy needs at most times, but will need to have adequate amounts of dispatchable generators with assured fuel supplies, such as natural gas, to be reliable all the time.”

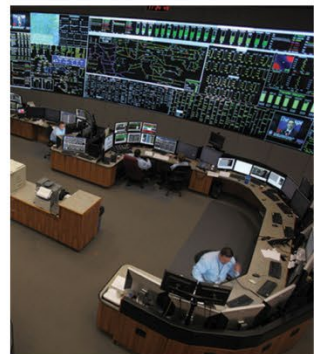
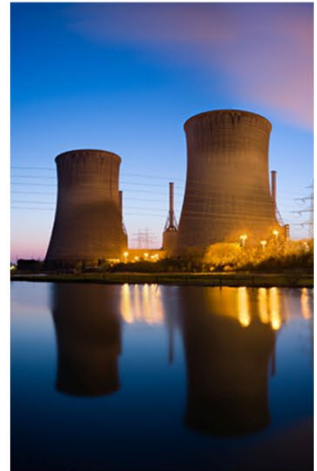
The LTRA, previewed in the [2024 LTRA video](#), indicates that the summer peak demand forecast is expected to rise by more than 122 GW for the 10-year period (15.7% higher than the current level). Since the 2023 LTRA, the 10-year summer peak demand forecast has grown by more than 50%. Similarly, the winter peak demand forecast is expected to rise by nearly 14% for the 10-year period.

When compared to last year’s LTRA, indicators point to greater investment and enhancements in the regional planning processes to support grid expansion with more transmission projects reported as either under construction or in planning for construction over the next 10 years. However, John Moura, NERC’s director of Reliability Assessments and Planning Analysis, stressed caution. “While we are encouraged by the significant

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increase in transmission development, industry and policymakers must address the persistent challenges of siting, permitting, and construction to ensure this growth becomes a reality,” Moura said. “Overcoming these barriers is critical to realizing a more reliable and resilient grid.”

NERC’s [Interregional Transfer Capability Study](#) (ITCS) found that an additional 35 GW of transfer capability across the United States would strengthen energy adequacy under extreme conditions. Increasing transfer capability between neighboring transmission systems has the potential to alleviate energy shortfalls and could become one of the solutions that entities put in place to address the resource adequacy issues identified in the LTRA.

The LTRA’s energy and capacity analysis identifies areas for future potential electricity shortfalls — most of which are projected to have adequate electricity supply resources to meet demand forecasts associated with normal weather. While multiple areas are identified as being at elevated risk in extreme conditions, the Midcontinent Independent System Operator is highlighted as not having the reserves to meet resource adequacy criteria in normal conditions as resource additions are not keeping up with generator retirements and demand growth. Consequently, reserve margins fall below Reference Margin Levels in both winter and summer.

The assessment identifies recommendations for energy policymakers, regulators, and industry to promote actions to reliably meet growing demand and energy needs while the resource mix transitions:

- **The pace of generator retirements should be carefully scrutinized and managed** by industry, regulatory and policy-setting organizations considering the projected reliability risks.
- **Enhance long-term assessment processes** by incorporating wide-area energy analysis with modeled interregional transfer capability, as found in the ITCS.
- **Support from regulators and policymakers at the federal, state, and provincial levels** is urgently needed to address siting and permitting challenges to remove barriers to resource and transmission development.
- **Collaboration across regulators, electric industry and gas industry member organizations** is needed to address the operating and planning needs of the interconnected natural gas-electric energy system.
- **Ensure essential reliability services are maintained** by regional transmission organizations, independent system operators and regulators.

Undertaken annually in coordination with the Regional Entities, NERC’s 2024 LTRA is the Electric Reliability Organization’s independent assessment and comprehensive report on the adequacy of planned bulk power system resources to reliably meet the electricity demand across North America over the next 10 years. The 2024 LTRA includes a probabilistic assessment and use of energy risk metrics to identify potential supply shortfalls.

###

Electricity is a key component of the fabric of modern society and NERC, as the Electric Reliability Organization, serves to strengthen that fabric. The vision for the ERO Enterprise, which is comprised of NERC and the six Regional Entities, is a highly reliable and secure North American bulk power system. Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

Executive Summary

In the 2024 LTRA, NERC finds that most of the North American BPS faces mounting resource adequacy challenges over the next 10 years as surging demand growth continues and thermal generators announce plans for retirement. New solar PV, battery, and hybrid resources continue to flood interconnection queues, but completion rates are lagging behind the need for new generation. Furthermore, the performance of these replacement resources is more variable and weather-dependent than the generators they are replacing. As a result, less overall capacity (dispatchable capacity in particular) is being added to the system than what was projected and needed to meet future demand. **The trends point to critical reliability challenges facing the industry: satisfying escalating energy growth, managing generator retirements, and accelerating resource and transmission development.**

This 2024 LTRA is the ERO's independent assessment and comprehensive report on the adequacy of planned BPS resources to reliably meet the electricity demand across North America over the next 10 years; it also identifies reliability trends, emerging issues, and potential risks that could impact the long-term reliability, resilience, and security of the BPS. The findings presented here are vitally important to understanding the reliability risks to the North American BPS as it is currently planned and being influenced by government policies, regulations, consumer preferences, and economic factors. Summaries of the report sections are provided below.

Capacity and Energy Risk Assessment

The **Capacity and Energy Risk Assessment** section of this report identifies potential future electricity supply shortfalls under normal and extreme weather conditions. NERC's evaluation of resource adequacy in the LTRA considers both the capacity of the resources and the capability of resources to convert inputs (e.g., fuel, wind, and solar irradiance) into electrical energy. NERC used both a probabilistic assessment and a reserve margin analysis to assess the risk of future electricity supply shortfalls. Both are forward-looking snapshots of resource adequacy that are tied to industry forecasts of electricity supplies, demand, and transmission development.

Areas categorized as **High Risk** fall below established resource adequacy criteria in the next five years. High-risk areas are likely to experience a shortfall in electricity supplies at the peak of an average summer or winter season. Extreme weather, producing wide-area heat waves or deep-freeze events, poses an even greater threat to reliability. **Elevated-Risk** areas meet resource adequacy criteria, but analysis indicates that extreme weather conditions are likely to cause a shortfall in area reserves. **Normal-Risk** areas are expected to have sufficient resources under a broad range of assessed conditions. The results of the risk assessment are depicted in **Figure 1**.

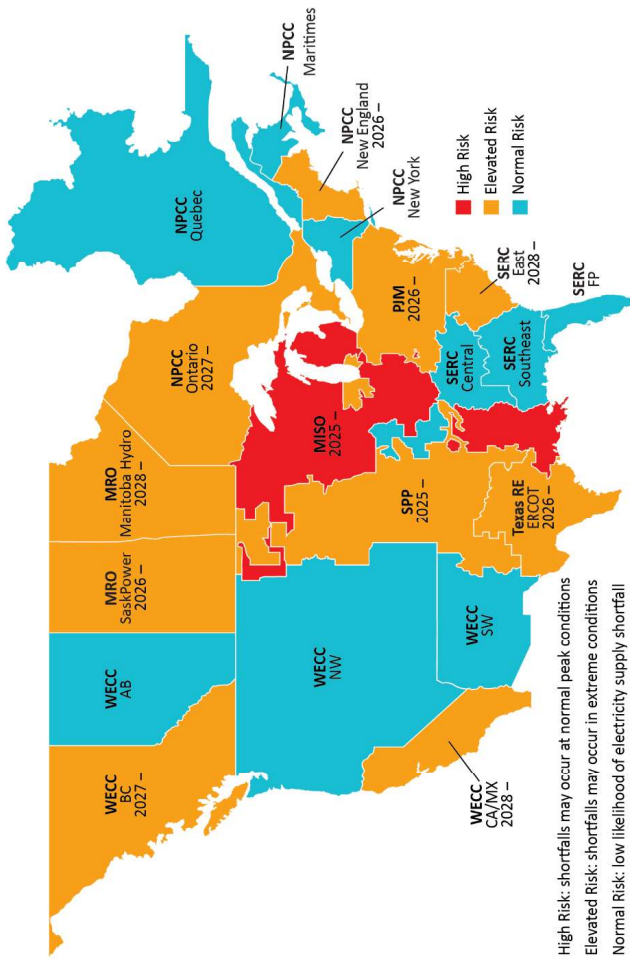


Figure 1: Risk Area Summary 2025–2029

Regional Assessments Dashboards

The **Regional Assessments Dashboards** section contains dashboards and summaries for each of the 20 assessment areas, developed from data and narrative information collected by NERC from the six Regional Entities. Probabilistic Assessments (ProBA) are presented that identify energy risk periods and describe the contributing demand and resource factors.

Table 1: Capacity and Energy Risk Assessment Area Summary

Area	Risk Level	Years	Risk Summary
MISO	High	2025 -	Resource additions are not keeping up with generator retirements and demand growth. Reserve margins fall below Reference Margin Levels (RML) in winter and summer.
Manitoba	Elevated	2028 -	Potential resource shortfalls in low-hydro conditions, driven by rising demand.
SaskPower	Elevated	2026 -	Risk of insufficient generation during fall and spring when more generators are off-line for maintenance.
Southwest Power Pool (SPP)	Elevated	2025 -	Potential energy shortfalls during peak summer and winter conditions arise from low wind conditions and natural gas fuel risk.
New England	Elevated	2026 -	Strong demand growth and persistent winter natural gas infrastructure limitations pose risks of supply shortfalls in extreme winter conditions.
Ontario	Elevated	2027 -	Reserve margins fall below RMLs as nuclear units undergo refurbishment and some current resource contracts expire. Demand growth is also adding to resource procurement needs.
PJM	Elevated	2026 -	Resource additions are not keeping up with generator retirements and demand growth. Winter seasons replace summer as the higher-risk periods due to generator performance and fuel supply issues.
SERC-East	Elevated	2028 -	Demand growth and planned generator retirements contribute to growing energy risks. Load is at risk in extreme winter conditions that cause demand to soar while supplies are threatened by generator performance, fuel issues, and inability to obtain emergency transfers.
ERCOT	Elevated	2026 -	Surging load growth is driving resource adequacy concerns as the share of dispatchable resources in the mix struggles to keep pace. Extreme winter weather has the potential to cause the most severe load-loss events.
California-Mexico	Elevated	2028 -	Demand growth and planned generator retirements can result in supply shortfalls during wide-area heat events that limit the supply of energy available for import.
British Columbia	Elevated	2027 -	Drought and extreme cold temperatures in winter can result in periods of insufficient operating reserves when neighboring areas are unable to provide excess energy.

Risk from Additional Generator Retirements

Plans for generator retirements continue at similar pace and scale to levels reported in the 2023 LTRA. Confirmed generator retirements (52 GW by 2029 and 78 GW over the 10-year period) are accounted for in the Capacity and Energy Risk Assessment above. Economic, policy, and regulatory factors spur further fossil-fired generators to retire in the 10-year horizon. Announced retirements, which include many generators that have not begun formal deactivation processes with planning entities, total 115 GW over the 10-year period. The effect of all retirements on the assessment area Planning Reserve Margins (PRM) can be seen in [Figure 2](#). On-peak reserve margins fall below RMLs; the levels required by jurisdictional resource adequacy requirements) in the next 10 years in almost every assessment area, signaling an accelerating need for more resources.

Changing Resource Mix and Reliability Implications

New resource additions continue at a rapid pace. Solar PV remains the overwhelmingly predominant generation type being added to the BPS followed by battery and hybrid resources, natural-gas-fired generators, and wind turbines. New resource additions fell short of industry’s projections from the 2023 LTRA with the notable exception of batteries, which added more nameplate capacity than was reported in development last year.

As older fossil-fired generators retire and are replaced by more solar PV and wind resources, the resource mix is becoming increasingly variable and weather-dependent. Solar PV, wind, and other variable energy resources (VER) contribute some fraction of their nameplate capacity output to serving demand based on the energy-producing inputs (e.g., solar irradiance, wind speed). The new resources also have different physical and operating characteristics from the generators that they are replacing, affecting the essential reliability services (ERS) that the resource mix provides. As generators are deactivated and replaced by new types of resources, ERS must still be maintained for the grid to operate reliably.

Natural-gas-fired generators are a vital BPS resource. They provide ERSs by ramping up and down to balance a more variable resource mix and are a dispatchable electricity supply for winter and times when wind and solar resources are less capable of serving demand. Natural gas pipeline capacity additions over the past seven years are trending downward, and some areas could experience insufficient pipeline capacity for electric generation during peak periods.

Trends and Reliability Implications

Demand and transmission trends affect long-term reliability and the sufficiency of electricity supplies. A summary for each is provided below and further discussed within the [Demand Trends and Implications](#) and [Transmission Development and Interregional Transfer Capability](#) sections.

Demand Trends

Electricity peak demand and energy growth forecasts over the 10-year assessment period continue to climb; demand growth is now higher than at any point in the past two decades. Increasing amounts of large commercial and industrial loads are connecting rapidly to the BPS. The size and speed with which data centers (including crypto and AI) can be constructed and connect to the grid presents unique challenges for demand forecasting and planning for system behavior. Additionally, the continued adoption of electric vehicles and heat pumps is a substantial driver for demand around North America. The aggregated BPS-wide projections for both winter and summer have increased massively over the 10-year period:

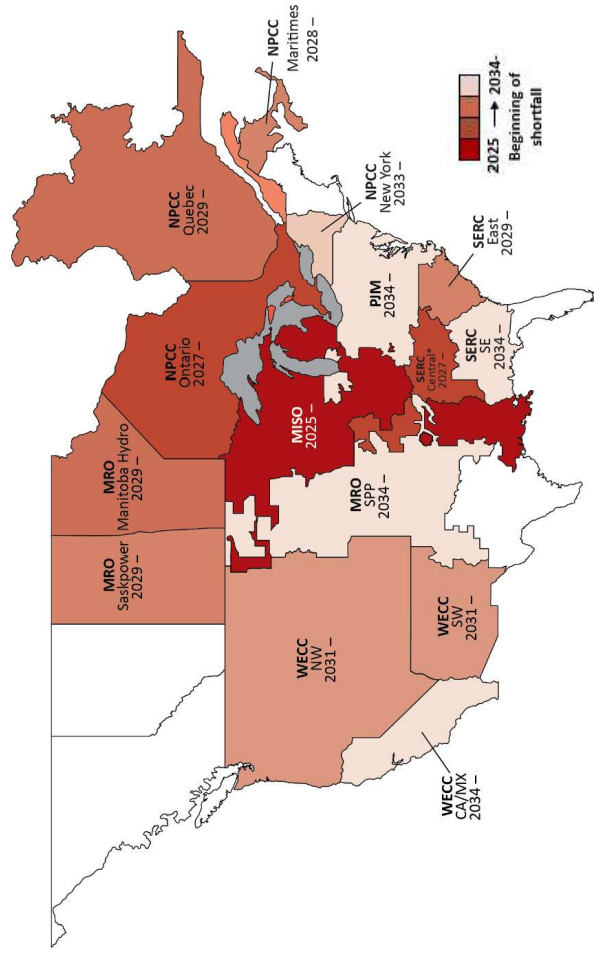


Figure 2: Projected Reserve Margin Shortfall Areas

- The aggregated assessment area summer peak demand forecast is expected to rise by 15% for the 10-year period: 132 GW this LTRA up from over 80 GW in the 2023 LTRA.
- The aggregated assessment area winter peak demand forecast is expected to rise over almost 18% for the 10-year period: 149 GW this LTRA up from almost 92 GW in the 2023 LTRA.

Transmission Trends

For the first time in recent years, transmission projections reported for the LTRA reflect a significant increase in transmission development. This year's cumulative level of 28,275 miles of transmission (>100 kV) in various stages of development for the next 10 years is substantially higher than the 2023 LTRA 10-year projections (18,675 miles) and is above the average of the past five years of NERC's LTRA reporting on average (18,900 miles of transmission planning projects in each 10-year period published in the last five LTRAs). Transmission in construction has yet to increase substantially; rather, the large increase in transmission projects is seen in planning stages of development.

New transmission projects are being driven to support new generation and enhance reliability. Transmission development continues to be affected by siting and permitting challenges. Of the 1,160 projects that are under construction or in planning for the next 10 years, 68 projects totaling 1,230 miles of new transmission are delayed by siting and permitting issues, according to data collected for the LTRA. Questions of cost allocation and recovery can also challenge transmission development when the benefits apply to more than one area, as often occurs with projects that enhance interregional transfer capability.

In NERC's separate Interregional Transfer Capability Study (ITCS), which was performed to meet requirements contained in the Fiscal Responsibility Act of 2023, NERC found that an additional 35 GW of transfer capability across the United States would strengthen energy adequacy under extreme conditions. Increasing transfer capability between neighboring transmission systems has the potential to alleviate energy shortfalls in some areas identified in this LTRA's **Capacity and Energy Risk Assessment**. Conversely, when resource plans are developed that address these same energy shortfalls, such as through resource additions, demand-side management initiatives, or changes to generator retirement plans, the need for increased transfer capability will also change. Planners have options for reducing energy adequacy risks from extreme weather. Selecting the best course of action will depend on weighing these options against various engineering, economic, policy, reliability, and resilience objectives.

The ITCS provides foundational insights that facilitate stakeholder analysis and actions; it is not a transmission plan. In the future, NERC will extend the study beyond the congressional mandate to include transfer capabilities from the United States to Canada and among Canadian provinces.

Emerging Issues

The **Emerging Issues** section discusses developments and trends that have the potential to substantially change future long-term demand and resource projections, resource availability, and reliable operations of the BPS. Topics include data centers and large industrial loads, battery energy storage systems, electric vehicles and load, and energy drought. NERC's RSTC has formed new task forces where needed to address emerging issues.

Better Energy goes into restructuring to rebuild its capital base and stabilize the business

19.12.2024 09:00:00 CET | [Better Energy](#) | Press release

Part

The second half of 2024 ended up being a perfect storm of negative market conditions, reduced investor appetite and deferred payments from key partners, which together have meant that Better Energy has filed for restructuring for Better Energy Holding A/S and Better Energy A/S. The Better Energy Group is looking into a 2025 with full focus on continuing to create value, as well as ensuring sufficient working capital to restore sustainable operations as soon as possible and thus declare the restructurings successful.



The green transition under great pressure

The green energy transition is in a crisis where the transition from fossil energy to electrification is too slow. This creates uncertainty about the pace of development, makes investors uncertain and thus changes investment conditions.

The main challenge is no longer the production of more renewable energy, but increasingly weak demand. If the pace is to be rediscovered in the green transition, it requires increased electrification and thus greater demand for green electricity.

At the same time, the market for renewable energy production is characterized by increased volatility with fluctuating energy prices, higher interest rates and yield requirements, challenges in supply chains, and increasing costs and limitations of grid connections.

These dynamics put pressure on the energy sector's business models, as renewable energy prices are uncertain – even with more frequent occurrences of negative prices. For capital investors, the external factors create uncertainty about the valuation of renewable energy projects, which dampens the desire to invest and results in significantly higher return requirements.

Despite great political ambitions for increased electrification, flexible electricity consumption and green hydrogen production in Denmark, from the second to the third quarter of 2024 it will become increasingly clear that the roll-out of green electricity production risks running ahead of the market. This imbalance threatens both the efficiency and speed of the green transition.

Since 2020, Better Energy has accounted for about half of all new renewable energy production on land in Denmark. This has been done through an industrial focus, by prioritizing speed and, not least, by continuously investing in the development of new projects.

Better Energy reacts quickly to market signals and adapts the organization in August with reductions in both cost base and staff, and at the same time postpones 3 GWp solar energy projects until after 2030.

Pioneers on the front line hit hard by the market

In the second half of 2024, the rapidly changing market conditions will have very concrete and major consequences for two of Better Energy's joint venture partnerships, which represent the company's main source of earnings in the form of a 50% divestment of solar parks.

Better Energy's partnership with Anedel, which was established less than a year ago in December 2023, gives Anedel exclusive rights to 2 GWp of solar energy spread across 15 projects in Better Energy's development portfolio. When the agreement is signed, four solar parks with a total capacity of around 750 MWp will be included in the partnership, after which construction will begin.

During 2024, three additional projects were planned and prepared for inclusion in the partnership, but due to market developments, Anedel is forced to cancel the inclusion of these projects and postpone indefinitely.

The cancellation – and the associated non-divestment of 50% of the projects – has a negative effect on Better Energy's revenue and earnings in 2024 and 2025. At the same time, these are projects that Better Energy has spent resources and costs on preparing for inclusion and, not least, the start of construction.

With these cancellations and thus clarity on a reduced activity level in 2025, Better Energy will once again reduce both its food base and staff in October.

Restraint on final payments squeezes Better Energy's liquidity

Parallel to the third and fourth quarters of 2024, Better Energy's second joint venture partnership with Industriens Pension will be hit by restraint. This means that planned final payments on 9 projects are still outstanding.

These are 9 projects that are either fully completed or very close to completion, and where Better Energy has already covered all significant costs. Therefore, the lack of final payments creates a temporary but acute imbalance in the overall economy of Better Energy.

As an adaptation to this new situation and as part of the preparations for 2025, Better Energy will carry out a third round of cost savings and reductions in November 2024, so that the overall workforce has been reduced by around 40%.

At the same time, the reluctance of Better Energy's joint venture partners is spreading to the company's other capital structures, which further complicate the company's financial room for manoeuvre.

Together, the above has a negative impact on Better Energy's ability to pay its partners on time and meet its financial obligations. Both management and the organization have worked intensively to address the financial challenges, but as a result of the current situation, Better Energy has been forced to file a restructuring application in order to continue its operations and meet its financial obligations. It concerns two companies in the Better Energy Group; Better Energy Holding A/S, CVR no. 31865883 and Better Energy A/S, CVR no. 36950676.

It is a reflection of the challenges associated with a capital-intensive industry, where the timing of capital availability plays a major role. Better Energy is facing a challenging 2025, where the overriding focus will continue to be to create value, as well as ensure sufficient working capital so that the company can quickly restore sustainable operations and thus declare the reconstructions successful.

12/16/24

Vale carries out its 1st test with wind energy on the largest ore carrier

- *Valemax Sohar Max has just completed a voyage from China to the Port of Tubarão, Brazil*
- *5 rotor sails were installed, 35 m high and 5 m in diameter each*
- *Expectation is for efficiency gains of 6% and reduction of 3,000 tons of CO₂equ./year*

One of the largest ships in the world with a wind propulsion system docked in Brazil last week, at the Port of Tubarão, in Vitória (ES), Brazil. Vale, in partnership with the Omani shipowner Asyad, has started the test period with rotor sails on the Sohar Max, a Valemax-type ship, 362 meters long and with a capacity of 400 thousand tons of cargo. The technology, developed by the English manufacturer Anemol Marine Technologies, uses wind energy to achieve energy efficiency gains and reduce emissions. The Sohar Max test is the fifth wind energy project installed on ships that provide service to Vale, supported or financed by the company, on vessels of different sizes. Two more projects are planned by the end of 2025.



The pilot project at Sohar Max is the largest ever carried out on a global level. In October, in China, the five cylindrical rotors were installed, about 35 meters high and 5 meters in diameter each. The ship made its first voyage with the technology installed and will continue to test the results on future voyages - the expectation is that the sails will allow efficiency gains of up to 6% and a consequent annual reduction of up to 3,000 tons of CO₂ equivalent per ship.

"Since 2010, Vale has been operating with highly efficient ships and, in recent years, has fostered initiatives for the adoption of wind energy, which will play a central role in the decarbonization of maritime transport of iron ore," says Vale's Director of Shipping, Rodrigo Bermelho. "This project reinforces this tradition of Vale's shipping area of investing in innovation and stimulating the modernization of the fleet to reduce emissions, in partnership with shipowners."

In addition to the Sohar Max, since 2021 Vale has been financing tests with rotor sails on Sea Zhoushan, a Guaibamax, in partnership with the Korean shipowner Pan Ocean. In parallel, it supports 5 other wind energy projects on ships that carry the company's ores, in projects promoted by shipowners.

The installation of rotor sails in Sohar Max is the sixth and most recent agreement with Asyad for the deployment of pilots of innovative technologies on four ships chartered by Vale. Previous projects have included the use of silicone paint to reduce resistance, the installation of frequency inverters to reduce electrical consumption, and the use of hydrodynamic devices to improve propulsion. Real-time data collection systems were installed on all ships to monitor the technologies.



These actions to incorporate cutting-edge technologies in Shipping are part of the EcoShipping program, an R&D initiative created by Vale to meet the company's challenge of reducing its carbon emissions, in line with the goals set by the International Maritime Organization (IMO).

How do rotor sails work?

The cylindrical rotors rotate to create a pressure difference in order to move the ship forward, from a phenomenon known as the Magnus effect. The use of this technology allows the reduction of power and fuel consumption of the main engine of the vessel when wind conditions are favorable, saving fuel and maintaining speed and travel time.

[Note, we clipped these two pictures from the Vale video to show the size of these rotor sails that are 35m high and 5m in diameter. The Vale video shows these rotor sails rotating to generate the wind power.]





December 16, 2024

The Right Honourable Justin Trudeau, P.C., M.P.

80 Wellington Street

Ottawa, ON K1A 0A2

Dear Prime Minister,

It has been the honour of my life to serve in government, working for Canada and Canadians. We have accomplished a lot together.

On Friday, you told me you no longer want me to serve as your Finance Minister and offered me another position in the Cabinet.

Upon reflection, I have concluded that the only honest and viable path is for me to resign from the Cabinet.

To be effective, a Minister must speak on behalf of the Prime Minister and with his full confidence. In making your decision, you made clear that I no longer credibly enjoy that confidence and possess the authority that comes with it.

For the past number of weeks, you and I have found ourselves at odds about the best path forward for Canada.

Our country today faces a grave challenge. The incoming administration in the United States is pursuing a policy of aggressive economic nationalism, including a threat of 25 per cent tariffs.

We need to take that threat extremely seriously. That means keeping our fiscal powder dry today, so we have the reserves we may need for a coming tariff war. That means eschewing costly political gimmicks, which we can ill afford and which make Canadians doubt that we recognize the gravity of the moment.

That means pushing back against 'America First' economic nationalism with a determined effort to fight for capital and investment and the jobs they bring. That means working in good faith and humility with the Premiers of the provinces and territories of our great and diverse country, and building a true Team Canada response.

I know Canadians would recognize and respect such an approach. They know when we are working for them, and they equally know when we are focused on ourselves. Inevitably, our time in government will come to an end. But how we deal with the threat our country currently faces will define us for a generation, and perhaps longer. Canada will win if we are strong, smart, and united.

It is this conviction which has driven my strenuous efforts this fall to manage our spending in ways that will give us the flexibility we will need to meet the serious challenges presented by the United States.

I will always be grateful for the chance to have served in government and I will always be proud of our government's work for Canada and Canadians.

I look forward to continuing to work with my colleagues as a Liberal Member of Parliament, and I am committed to running again for my seat in Toronto in the next federal election.

With gratitude,

The Honourable Chrystia Freeland, P.C., M.P.



IFIC Monthly Investment Fund Statistics – November 2024

Mutual fund and exchange-traded fund (ETF) assets and sales

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

Mutual fund assets totalled \$2.268 trillion at the end of November, up by \$78.8 billion or 3.6 per cent since October. Mutual fund net sales were \$4.6 billion in November.

ETF assets totalled \$515.5 billion at the end of November, up by \$28.4 billion or 5.8 per cent since October. ETF net sales were \$9.0 billion in November.

November insights

- The growth in mutual fund and ETF assets was the largest single-month increase so far in 2024.
- ETF assets crossed the \$500 billion mark for the first time.
- November recorded the second-largest mutual fund monthly net sales in history with all major asset classes generating inflows.
- ETF net sales set a new record for the first 11 months of the year, surpassing the previous high established in 2021 during the post-Covid recovery period.

Asset class	Nov 2024	Oct 2024	Nov 2023	YTD 2024	YTD 2023
Long-term funds					
Balanced	493	(223)	(6,512)	(22,191)	(51,469)
Equity	678	(103)	(2,583)	1,245	(21,793)
Bond	1,984	3,125	(491)	23,809	5,609
Specialty	733	644	389	6,926	3,362
Total long-term funds	3,889	3,443	(9,197)	9,789	(64,290)
Total money market funds	685	62	1,124	2,848	13,777
Total	4,574	3,505	(8,073)	12,637	(50,513)

Mutual fund net assets (\$ billions)*

Asset class	Nov 2024	Oct 2024	Nov 2023	Dec 2023
Long-term funds				
Balanced	1,011.2	979.1	885.0	904.3
Equity	882.5	843.5	698.0	714.4
Bond	281.0	275.6	235.7	242.3
Specialty	37.2	35.8	26.8	27.0
Total long-term funds	2,211.9	2,134.0	1,845.5	1,888.0
Total money market funds	55.8	54.9	49.9	50.7
Total	2,267.7	2,188.9	1,895.4	1,938.7

* See below for important information about this data.

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

Asset class	Nov 2024	Oct 2024	Nov 2023	YTD 2024	YTD 2023
Long-term funds					
Balanced	563	591	196	4,831	1,587
Equity	6,571	4,466	2,713	36,509	10,375
Bond	979	2,952	582	18,779	10,107
Specialty	446	327	1,003	2,336	2,169
Total long-term funds	8,558	8,335	4,493	62,456	24,238
Total money market funds	461	87	452	2,110	9,299
Total	9,019	8,422	4,945	64,565	33,537

ETF net assets (\$ billions)*

Asset class	Nov 2024	Oct 2024	Nov 2023	Dec 2023
Long-term funds				
Balanced	23.1	21.6	14.5	15.1
Equity	325.8	304.9	224.7	232.5
Bond	115.7	113.5	90.4	94.6
Specialty	23.1	19.9	13.7	14.4
Total long-term funds	487.8	459.9	343.3	356.7
Total money market funds	27.7	27.2	25.6	25.3
Total	515.5	487.1	368.8	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.
5. 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](#)

Results of the Year with Vladimir Putin

Vladimir Putin summed up the results of the year and answered questions from journalists and the people of Russia in a live broadcast.



December 19, 2024

16:30

Moscow

Results of the Year with Vladimir Putin

Channel One war correspondent Dmitry Kulko and VGTRK presenter Alexandra Suvorova moderated the Results of the Year with Vladimir Putin.

* * *

Deputy Chief of Staff of the Presidential Executive Office – Presidential Press Secretary Dmitry Peskov: Good afternoon everyone.

The President will be here within minutes to review the results of the outgoing year. I would like to remind you that this year we combine two events, the news conference and Direct Line.

Please show respect for your colleagues when I give the floor to journalists and make your questions as concise and clear as possible. This will allow the President to answer more questions.

Our moderators this year are Alexandra Suvorova and Dmitry Kulko, who will talk with the President. They worked hard to personally read extremely many questions from our people, possibly tens of thousands of them. They understand what the people of Russia are talking about and will help the President outline the subjects that are at the top of the agenda throughout the country.

Please.

Alexandra Suvorova: Good afternoon. This is the Results of the Year with Vladimir Putin. As usual, questions can be submitted in a number of ways until the end of our programme. Our colleagues continue working with the incoming questions.

First, you can submit your questions by calling 8 (800) 200 4040 or sending an SMS or MMS message to 04040. Questions can also be submitted via the programme's official accounts on Vkontakte and Odnoklassniki. You can also use the website and mobile app called москва-путину.рф.

We have already received over 2.2 million questions, including 1.2 million via telephone, about 43,000 via SMS messages, and over 140,000 via the website. We can see that the number of questions is increasing in real time.

Let me share some interesting facts and figures on the Results of the Year with Vladimir Putin programme since this format was created. There was a time when the Direct Line and the news conference were two separate events and formats. This is the third time we are having it in a hybrid format. The first time it happened was before the COVID pandemic, the second was a post-COVID event in 2023, and now we are in 2024. Once again, the programme is taking place in a hybrid format, which means that both the people of Russia and, of course, journalists get to ask questions.

Here are some interesting statistics. For example, the event with the biggest number of questions took place in 2015 when the President received 2.25 million questions. This year, we have not reached this number. However, I believe that this could be attributable to the fact that regions hold their own direct lines, with governors answering questions from their people at the regional level. Therefore, some questions get resolved on the ground.

One thing to note here is that if we add up all the time Vladimir Putin has spent answering questions during events of this kind, the total already exceeds 64 hours. People have been tuning in from the regions since 2001 when the very first programme of this kind took place. It goes without saying that there will also be people joining us via videoconference from the regions today. Throughout the years when we had the Direct Line and the Results of the Year, people have been proactively contributing to these events not only by raising various issues with the President, sharing their concerns or asking for something, but also by expressing their gratitude. This year, considering that we are holding this event on December 19, we also received New Year greetings. This is another trend I wanted to mention.

Of course, social matters are in the spotlight today, judging by the submissions we have selected. Many questions deal with the special military operation. International matters are also high on the agenda, of course. So let us get started.

Dmitry Kulko: President of the Russian Federation Vladimir Putin.

For the third year in a row, volunteers from the Russian Popular Front have been helping prepare our programme and process the messages and calls. This year, they were also joined by veterans of the special military operation. For ten days since the free telephone line opened, they, too, have been taking phone calls. However, the Russian Popular Front's work does not end today. In fact, we can say that it is only just beginning, because the moment the broadcast ends, the Popular Front volunteers will continue to work on the appeals people made to ensure that none of them is left unattended.

Alexandra Suvorova: I would like to add that some of the appeals have already been processed during the preparations for the Results of the Year programme, and some of the issues have been addressed by Popular Front volunteers and regional and federal authorities.

There is one more aspect that is different this year. GigaChat, an AI model provided by Sber, has helped us process people's appeals and questions. Mr President, I know that you have already seen it.

President of Russia Vladimir Putin: I have.

Dmitry Kulko: Yes, GigaChat has drawn conclusions. This technology can do more than transcribe audio files into text – it can also extract the message and the essence of the problem, which has significantly accelerated the processing of requests this year. You will be able to see GigaChat's insights on the screen throughout the programme. You will see the key subjects of people's appeals, across the country and in each region. We will be using this virtual assistant during the programme today.

Anna Suvorova: Before we start taking questions from our people and our colleagues, journalists, I would like to ask the first general question.

In recent time, everyone has been feeling a disturbing sense that the world is going crazy, or already has, because the potential for conflict is off the charts in every part of the world, and the global economy is struggling. How does Russia manage not only to stay afloat, but also to continue growing in this situation?

Vladimir Putin: You know, when all is calm and life is measured and stable, we get bored. This amounts to stagnation, so we crave action. When action begins, time starts whistling by – or bullets do, for that matter. Unfortunately, bullets are what is zipping past our heads these days. We are scared, yes – but not as “all get out” kind of scared.

Our economics are the ultimate measure of things. As is traditional, I will start with the economy. Although your question was a bit provocative, I will turn to the economy anyway. The economy is number one; it is the cornerstone. It has an impact on living standards, general stability, and the country's defence capability. The economy is everything.

The economic situation in Russia is generally positive and stable. We are growing in spite of everything, in spite of any external threats or attempts at outside influence.

As you know, last year Russia increased its GDP by 3.6 percent, and this year the economy is expected to grow by 3.9 percent, or possibly even four percent. However, we will have to wait and see the final results, as the year-end figures will be de facto factored into these projections in the first quarter of next year, which will be 2025 in this particular case. It may well be that this indicator reaches four percent. What this means is that our economy will have grown by eight percent over the past two years. After all, the tenths and hundredths of a percent make for a negligible difference. This is what experts have been telling me – we exchanged views this very morning. About eight percent over the past two years, compared to a growth rate between five and six percent for the United States, one percent for the Eurozone, and zero for Germany, the EU's leading economy. It seems that next year that country will also have zero growth.

International financial and economic institutions ranked Russia as Europe's biggest economy in terms of volume, in terms of purchasing power parity, and the world's fourth largest economy. We are behind China, the United States and India. Last year, Russia surpassed Germany and this year, we left Japan behind. But this is not the time for us to be complacent. We will definitely keep moving forward.

There is development everywhere you look and so much positive momentum across the board. If the Eurozone has fallen asleep, there are other centres of global development that are advancing. The situation in the Eurozone and the United States has been changing too. We must maintain the momentum we have gathered and transform our economy at its core, from a qualitative perspective.

There are other general performance indicators which have been quite satisfactory, to say the least. Unemployment is the first such indicator. All countries around the world, and all economies, pay a great deal of attention to this figure. For Russia, it is at its all-time low of 2.3 percent. We have not experienced anything like this before. This is my first point.

Second, there has been growth in specific manufacturing and industrial sectors. In fact, industrial output increased by 4.4 percent, while the processing sector reported a growth rate of 8.1 percent, with some of its sectors achieving even higher growth rates.

Of course, inflation has been causing some concerns. Only yesterday, while preparing for today's event, I talked to the Central Bank Governor, and Elvira Nabiullina told me that the inflation rate has already reached about 9.2–9.3 percent year-to-date. That said, salaries have increased by nine percent, and I am talking about an increase in real terms, minus inflation. In addition, disposable incomes have also increased. So, the overall situation is stable and, let me reiterate, solid.

There are certain challenges with inflation and with the economy heating up. Therefore, the Government and the Central Bank have been seeking to ensure a soft landing. Estimates may vary for next year, but we expect the economy to grow at a rate of 2–2.5 percent. This soft landing would enable us to keep improving our macroeconomic performance.

This is what we must aspire to. I think that we will probably raise these matters during today's meeting. Overall, the economy can be described as stable and resilient.

Alexandra Suvorova: I have a follow-up question, given the numerous questions surrounding price growth, to which we will return. You have cited Germany and Japan as examples. I wish to focus on Germany having a zero percent growth rate, which you mentioned as a case previously known for its economic expansion.

Do you believe this is perhaps linked to politics and sovereignty? Not long ago, at the VTB Forum Russia Calling!, you reminisced about Gerhard Schroeder's birthday celebration, remarking how all the songs were in English, with none performed in German.

Vladimir Putin: There were. It's an interesting episode. Quite some time ago, it was Gerhard Schroeder's birthday, he invited me and I attended. There was a small concert, and, as it happened, all the companies performed in English. I remarked at the time, "Even the Hannover girls' choir sang in English."

There was, however, one ensemble that performed in German: the Kuban Cossack Choir, which accompanied me. Moreover, this was entirely unexpected on my part. I inquired, "How did you come to know these songs?" They replied, "Out of respect for the Germans, our hosts, we learnt these songs en route and performed them in German, including those from the local region where we are now."

During the intermission, numerous attendees approached me (I recount this as it truly unfolded) and expressed, “We are embarrassed, truly, that only Russian Cossacks performed in German here.”

I recounted this to a colleague who was present at the event, which has now been recalled. You see, sovereignty is a crucial concept; it must reside within, in one's heart. In the post-war era, I believe this sense – of homeland and sovereignty – has been somewhat eroded among the German people.

Who are the Europeans, after all? They are proud to be European, yet they are foremost French, German, Italian, Spanish, and then European. There is a tendency to smooth out things, to homogenise. Ultimately, this affects everything, including the economy.

I previously spoke about our economic growth – this is largely attributable to the reinforcement of sovereignty, which extends to the economic realm.

Many foreign manufacturers have exited our market. What has been the consequence? Our entrepreneurs have started producing these goods domestically, necessitating further research and the engagement of institutions, including those focused on development. All of this – what we are discussing – is the enhancement of technological sovereignty.

Sovereignty manifests itself in various forms: defence, technology, science, education, culture. This is of paramount importance, especially for our nation, because should we lose sovereignty, we risk losing statehood. That is the crux.

Economic growth is also an effect of bolstered sovereignty.

Dmitry Kulko: Mr President, I suggest we move on to questions from our citizens.

Vladimir Putin: Yes, let us begin.

Dmitry Kulko: You spoke about economic growth. It is true that a look at our economic indicators, which do look good, shows that the majority of Russian enterprises are working to capacity and wages are rising, yet they cannot keep pace with price increases.

Many Russian citizens have written about this, and AI has analysed all the requests and compiled a list of regions where more questions concerned price growth. These are eastern regions, such as the Kamchatka Territory and the Sakhalin Region, and also our westernmost territory, the Kaliningrad Region. Also, the majority of questions from the Irkutsk Region concern price growth. In short, it is a topical issue.

Alexandra Suvorova: It is topical indeed. I will cite the figures which have also been provided by GigaChat, which we are using.

The most frequent questions have to do with the rise in prices of bread, fish, milk, eggs and butter. People also write about the growth of fuel prices. This file contains some of the citizens' questions about price growth.

If we look at the official data of the Federal State Statistics Service (Rosstat), we got it last night, we will see that the prices of fruits and vegetables have increased by 3.4 percent over the past week.

For example, the price of cucumbers has grown by ten percent after rising by 43 percent in November.

Vladimir Putin: First, I would like to apologise to the audience, especially those who are following this event via various media platforms, including online. When I said that price growth or inflation was slightly above nine percent this year, at 9.2–9.3 percent, and that people’s wages and real disposable incomes have grown as well, I cited average figures. Of course, our country is very big, and some people might ask me what I was talking about, that their well-being has not improved but remained at the same level. And some might even say that their well-being has deteriorated. Yes, this can be so and it is so, in some cases. I cited average figures, because when we make plans, we need to have figures to rely on, and we can only rely on average figures.

As for the growth of prices, there are both objective and subjective reasons for that.

What is more important is that the supply in our market should correlate with people’s incomes, or rather, people’s incomes and their purchasing capacity should correlate with the volume of goods produced in the country. Wages and incomes have been growing faster than the mass of commodities and the rate of production.

I will explain. Let’s say, food production in our country is constantly growing. I will talk about this later. There will certainly be questions on agriculture. In fact, I can tell you that it adds three percent every year. We are fully self-sufficient when it comes to meat. One hundred percent.

It is a good indicator. Why does this happen? In Russia, the annual consumption of meat is about 80 kg per capita while in other countries, it is about 42 kg on average. It may seem enough and yet, meat consumption has doubled recently, you see? Doubled.

Now, milk. Milk production grows every year, but consumption grows as well, and there is not enough milk to produce butter. I know that the butter prices have grown by 33–34 percent in some regions, and possibly higher in others.

Simply, the amount of products has not grown as much as consumption has. This is the first reason. The solution here would be to develop industries. And I will talk more about it later.

The second objective reason is harvest.

The third objective reason is that some products have become more expensive on world markets.

Of course, the external restrictions, sanctions and so forth are affecting the prices to a certain extent. They do not play a key role but still, they take a toll as they make logistics more expensive, in addition to other things.

There are also subjective reasons or things we could improve on our side. For example, some experts believe that the Central Bank could have used certain instruments other than raising the key rate, more efficiently and at an earlier stage. Yes, the Central Bank started doing it around summer. But again, these experts believe that it could have and should have been done earlier. There are many instruments. I will not list them now and will not tire our audience with these considerations about the Central Bank and its regulation methods.

The Government works efficiently and does a lot when it thinks about the future – and the future should always be considered. In our country, we always thought about the future even during the harshest times

of the Great Patriotic War. We know these examples. There were efforts made and, as it turned out later, correct efforts.

Our Government does think about the future: it formulates tasks, national development goals and national projects. It is wonderful but it would also be great to take timely efforts with respect to industries and consider the development of certain sectors, the production of mass products. I will not list them now – perhaps, there will be questions on specific industries later. Timely decisions should have been made.

Growing prices are not something to enjoy and they have adverse impacts. But I hope that overall, as we preserve macroeconomic indicators, we shall address this issues as well because macroeconomics is the basis for a healthy economy in general.

Dmitry Kulko: Mr President, we are holding today’s event in a combined format, a direct line and a news conference. I now suggest that our journalist colleagues ask a question.

Alexandra Suvorova: We can sense that those present in the hall are eager to ask their questions.

Dmitry Peskov: Indeed, the audience is quite eager. Allow me ...

A question from the audience.

Dmitry Peskov: You know, if we behave this way, it would be disrespectful towards everyone else.

Vladimir Putin: Nevertheless, let us refrain from acting this way, and let us begin. What is your name?

Alina Khastsayeva: My name is Alina Khastsayeva, I represent the 15th Region information website in North Ossetia.

Vladimir Putin: Alina, go ahead, please.

Alina Khastsayeva: The issue of professional service personnel has become increasingly important. Multiple schools, including the North Caucasus Military Institute of Interior Troops in North Ossetia, used to train military specialists in the North Caucasus.

Quite literally, a legendary institute: seven of its graduates became Heroes of the Soviet Union, and 14 more received the title of Heroes of Russia. To this very day, its graduates are successfully carrying out missions set by our state. Its graduates include former Interior Minister Anatoly Kulikov, and Sergei Khairutdinov, a recent graduate, became Hero of Russia while taking part in the special military operation.

Is it possible to reinstate this institute at a time when the North Caucasus and the whole of Russia need it so much? Thank you.

Vladimir Putin: Alina, thank you for this question. This is a good point, and do not be angry with Alina; here is why.

First, North Ossetia has always been Russia’s outpost in this region, in the Caucasus, and it has always justified its lofty designation. We know how the republic’s residents feel about their region and about

Russia, our large common Motherland. They have always defended it and have fulfilled this role worthily and admirably.

You have noted that the number of schools has been reduced. This is not linked to a decision to close them in Ossetia alone. It is related to the fact that, according to military specialists and agencies, there were too many military schools, and the Russian army did not need so many specialists and so much service personnel at the time. Due to various circumstances, we are now increasing the strength of the army, security and law enforcement agencies to 1.5 million people. I cannot say that we will achieve this tomorrow, but I promise you that we will certainly analyse this issue.

Thank you.

Dmitry Peskov: We continue working with the audience. Let us go back to the centre after all.

ITAR-TASS, please.

Mikhail Petrov: Mikhail Petrov, Editor-in-Chief, TASS.

Mr President, before I ask my question, I would like to thank you.

This year, TASS is celebrating its 120th anniversary. We are this country's oldest news agency. Earlier this year, in August, you signed an Executive order on awarding TASS the Order for Valiant Labour. On behalf of our large team and at their instructions, I want to take a message of many thanks to you. This is a high praise for our work.

Vladimir Putin: Thank you.

Mikhail Petrov: As for the question, I think this issue is of concern for all of us today. Incidentally, TASS correspondents sent reports from the fronts during the Great Patriotic War. Today, too, our men are working in the special military operation zone, and they are concerned as well.

How do you assess the progress in the special military operation, which has lasted for nearly three years now? Is the victory nearer?

Vladimir Putin: I certainly hoped for questions of this kind. There are many of these within the bulk [of messages] that came in during the previous days. Moreover, I am grateful to you, too, for [asking this question], because this enables us to show what is going on and what our troops are doing at the battle contact line.

You know, the fighting men, with whom I am in regular contact, send souvenirs, chevrons, some weapons, and so on. Not long ago, men from the 155th Marine Brigade of the Pacific Fleet gave me a copy of their colours.

Who can I ask to assist me? Come over to me, please, and someone from that side. I have a big favour to ask. You take a position here and you – there, and unfold this banner, please, at both ends.

Dmitry Kulko: Pacific Fleet marines.

Vladimir Putin: Yes.

I have brought it along on purpose.

First, I wanted to thank the men for this gift.

Second, let us consider that this banner of the 155th Marine Brigade of the Pacific Fleet represents all the combat banners of our soldiers, who are fighting for Russia, for the Motherland, along the entire line of contact.

I must say that the situation is changing radically. You know this well and I just want to reaffirm this. The drive is on along the entire frontline every day.

As I said, the advance is not by 100, 200, or 300 metres. Our fighting men are regaining the territory by square kilometers. I want to stress – every day! Why is this happening?

First, last year, and this basically is the classical course of hostilities, the enemy attacks, sustains a heavy defeat, loses a lot of equipment, ammunition and personnel, and then the other side starts to push forward. In our case, this is happening exactly in this way. Combat operations are a difficult thing. So, it is hard – and makes no sense – to think far too ahead. But it happens precisely in this way. And we are advancing, as we said, towards achieving the priority goals that we outlined at the start of the special military operation.

As for our troops, they are acting heroically. I say this regularly and will repeat it, because there is every reason for saying so. Right now, the 155th Brigade is fighting in the Kursk Region and pushing the enemy out from our land. Of course, they are not alone. Fighting alongside them are the 810th Marine Brigade of the Black Sea Fleet, the 76th and 106th divisions of the Airborne Troops, and motorised infantry of the Sever Group. All of them are fighting heroically in the direct sense of the word. And they are involved in an engagement right at this moment. Let us wish them all success, victory and safe homecoming, meaning those fighting in the Kursk Region and along the entire frontline.

Thank you.

Dmitry Kulko: Mr President, I have just returned from the Kursk Region. We have been working with the units and formations you mentioned, which are currently undertaking the noble duty of liberating our homeland. For several weeks, we have been on the front lines, filming reports. Notably, the 155th brigade has liberated several residential areas, and we have discussed this.

Our reports illustrate that once the enemy is expelled from a residential area, they begin bombarding these streets with drones and artillery, almost as if in retaliation. We visited the recently liberated Borki, Snagost, and Lyubimovka. The footage clearly shows the houses intact initially, only to be targeted by Ukrainian shells afterwards. Consequently, the residents of this border region now find themselves with nowhere to return to and are striving to build new lives somehow.

I propose we connect with Tatyana Zibrova by telephone. She is currently residing in temporary accommodation in the Kursk Region. Ms Zibrova, can you hear us?

Tatyana Zibrova: Yes, I can hear you.

Dmitry Kulko: Please direct your question to the President.

Tatyana Zibrova: Good afternoon, Mr President.

Vladimir Putin: Hello.

Tatyana Zibrova: I am a resident of the Kursk Region, Bolshesoldatsky District.

I have a question on behalf of all residents of the Kursk Region. When will our region be fully liberated? When will the Ukrainian armed forces be pushed back so far that they will not even dare to show themselves or look in our direction? When will we be able to return to our homes or have our own accommodation somewhere?

Additionally, will the small villages that were destroyed be rebuilt, and will infrastructure be restored? The residents of Bolshesoldatsky District are particularly concerned: will we be included on the list of those eligible to receive housing certificates? Currently, we are not receiving them, as the Ukrainian armed forces have not directly invaded us and we are not on the list for certificates.

Vladimir Putin: Ms Zibrova, rest assured. I cannot and do not want to provide a specific date as to when they will be driven out. Our troops are engaged in combat right now, and the battles are intense. As I have mentioned before, there was no strategic military reason for the Ukrainian armed forces to enter the Kursk Region or to hold their position there as they are, deploying their elite assault groups and units to no avail. Yet, this situation persists.

We will undoubtedly drive them out. There is no alternative. Concerning a precise date – I am afraid I cannot specify one at this moment. I have an understanding of the plans, which are regularly reported to me. However, it is not possible to declare a specific date. The troops can hear me now; if I were to specify a date, they would go to great lengths to meet it, potentially disregarding casualties. We cannot allow that. While a day or two may not make a significant difference, but we will undoubtedly expel them, the damage assessment will follow, and, most importantly, everything will be restored. There is no doubt about that.

We will rebuild the road network, restore utility infrastructure, and reinstate social facilities such as schools and kindergartens. Community centres and housing will be rebuilt, and housing reconstruction certificates will be issued.

We will assist those who wish to relocate to other regions. Currently, about 108 billion rubles have been allocated for this purpose, if I remember correctly. I know that the first funds have already been received. The Administration will work throughout the holidays, meeting with people and addressing their issues, including providing certificates.

I understand that what is happening is incredibly challenging for you: people are experiencing heavy losses, inconveniences, especially families with children. But rest assured, we will do everything in our power to restore everything. Everyone in need of housing assistance will be fully satisfied; everyone will receive what they are entitled to.

I genuinely hope that the new head of the region, who has been appointed to the Kursk Region, is experienced and capable of effectively working with people. That is why I chose him, he has a long history of working in the State Duma and directly with his voters, so he knows how to handle it. I expect that he will work with every person on an individual basis.

Dmitry Kulko: Mr President, our military personnel who are currently liberating the Kursk Region do not have the status of a participant in the special military operation.

Vladimir Putin: Pardon?

Dmitry Kulko: They don't have the status of a participant in the special military operation.

Vladimir Putin: Why?

Dmitry Kulko: Because they are participants in the counter-terrorism operation. This also affects the payments they receive.

We received several requests, mostly from the wives of the military personnel: "My husband serves in an assault company in the Kursk Region and is carrying out combat missions. In October and November, he received a pay allowance of 42,000 rubles, even though he is on battle positions. Many soldiers have not received combat daily payments for three or four months. It has been argued that they are in the zone of a counter-terrorism operation, not the special military operation."

Another appeal: "In the Kursk Region, they are paid a monthly salary of 25,000 rubles, not the 210,000 rubles promised in the Ministry of Defence contracts."

Can this situation be corrected?

Vladimir Putin: It can and should be rectified. This is a mistake on our part. That is no news to me. I understand what you are talking about.

Our servicemen who fought in other parts of the front are recognised as combatants. If they have been transferred to the Kursk Region, they should receive all the payments they are entitled to. I will look into this.

There might be a category of individuals who had not previously participated at all or had not been on the front lines and were deployed to the Kursk Region from the very beginning, so they were not classified as participants in the special military operation.

To be honest, it never occurred to me, and I apologise for that. This will be corrected. It is unfortunate that the military department did not pay attention to this either; after all, it primarily falls under their responsibility.

We will correct everything, and all servicemen who are carrying out their duty to the Motherland on the line of contact will receive all payments due to them. We will recalculate retroactively.

Dmitry Kulko: Thank you very much.

Vladimir Putin: Absolutely, without a doubt.

Dmitry Kulko: I personally know a few soldiers who are eager to get an answer right now.

Vladimir Putin: Yes, and I want the fighters to hear me. Please, do not worry, and do not let your families worry about it: everything will be recalculated, and all the due payments, including the benefits for combat action, every payment to which you are entitled will be made.

Dmitry Kulko: Mr President, you have already said today that the Armed Forces of Ukraine are sending their special forces for slaughter in the Kursk Region. Indeed, their losses are enormous; this much is quite obvious. To be honest, I have never seen so many abandoned enemy bodies – indeed, all the local forests are littered with them. I do not even have to mention all the destroyed NATO equipment, including Abrams, Bradley, Leopard vehicles. They say the Kursk Region, its soil, is now the world's biggest burial place of NATO equipment, and that is actually true.

Vladimir Putin: Possibly.

Dmitry Kulko: However, there is one small point to make here.

Vladimir Putin: As far as I know, the number of armoured vehicles destroyed in the Kursk Region has now exceeded the number of vehicles destroyed on the entire line of contact last year – in any case, these are comparable figures.

Dmitry Kulko: Please, could I ask, could I put in a word for the fighters, for those who destroyed that equipment: will they receive the promised reward?

Vladimir Putin: For the damaged equipment?

Dmitry Kulko: Yes.

Vladimir Putin: Of course, they should. Are there any problems with this?

Dmitry Kulko: To be honest, they are facing some difficulties.

Vladimir Putin: That is surprising. I know that the Defence Minister is listening to our conversation now, and this will definitely be done. No one should have any doubt about this.

Dmitry Kulko: Thank you.

Dmitry Peskov: Shall we move on to questions from the audience?

Vladimir Putin: Yes.

Dmitry Peskov: Since we are talking about military issues, let's start with the Zvezda television channel.

Konstantin Kokoveshnikov: Good afternoon.

Konstantin Kokoveshnikov, Zvezda TV channel.

Vladimir Putin: Good afternoon.

Konstantin Kokoveshnikov: I cannot but ask you about the statements that we have heard over the past few weeks concerning the footage of the first combat tests of the latest Oreshnik missile, which has been shown all over the world. One gets the impression that it really has no drawbacks, but the West continues to refer to Oreshnik as a modification of old Soviet weapons, claiming that this missile can be shot down by air defence even at the launch stage.

How would you comment on this? Does it have any shortcomings?

If you do not mind, I have a clarifying question: what meaning did the creators of the Oreshnik put into the name – hazel tree? There are several versions.

Vladimir Putin: First, regarding how old or new and modern this weapon is. It is a modern, a brand new weapon. All new achievements in any sphere are based on the designs and achievements made in the past, which people use to move forward. This is also true about the Oreshnik system.

Yes, it is based on previous designs, but these designs were made in the contemporary Russian period. Our scientists, designers and engineers used that basis to create something new, coordinating their activities with the Defence Ministry as the contractor. When I was ultimately informed about that system, I joined the discussions on whether to make it or not, in what quantities, when and how.

It is a new system. As I have said, it is an intermediate- and shorter-range system.

You have said that some Western experts believe that this missile can be easily shot down and destroyed, especially in the boost phase of the missile trajectory.

What would I tell those experts? There are several types of air defence systems, as you know being from the Zvezda TV channel, such as Patriot and the more modern THAAD systems. I do not know if Ukraine has them, but I do not think so. If the Americans want, they can send its THAAD systems to Ukraine. These are more modern systems similar to our S-400 systems. The Patriot systems are comparable to our S-300s, while THAAD is similar to our S-400 systems, if only slightly inferior.

Let them send these systems to Ukraine, and we will ask our people in Ukraine to tell us about the modern solutions of these systems which we could use. I am not joking when I say “our people,” because there are people in Ukraine who you can talk to, there are many of such people who are dreaming, together with us, about liberating their country from the neo-Nazi regime.

There are also other strike systems such as the ballistic missile system (BMD), which used to be a hot topic of our discussions. We once asked the Americans not to deploy that system so that we would not have to create weapons that would be able to avoid it.

We have eventually done that. We have created the Avangard glide vehicle, which does not fly by a specific trajectory but hugs the terrain, without going up into space, because it is not a ballistic missile. We have done a great deal to evade air defence systems.

Overall, this whole story is an expensive product for the American taxpayers that can do little to ensure national security. However, that system has been created and produced in large quantities.

Two missile launching areas have been established in Romania and Poland, respectively. Around 24 missile interceptors are already deployed at each site. I don't remember but I think they are called Standard Missile-3 systems. Standard Missile-3 Block 1B missiles are deployed in Romania. They have an effective range of 300 kilometres and can hit targets 80 to 250 km above the ground.

Even more formidable weapon systems are deployed in Poland, with a range and altitude of 1,000 and 500 km. However, our medium-range Oreshnik missile system can strike targets located 1,000, 1,500, 3,000-plus and up to 5,500 km away. Such is its range.

Supposing our system is located 2,000 km away, the missile interceptors on Polish territory would be unable to hit it. Yes, they say that the missiles are quite vulnerable during the initial boost phase. First, nothing will reach those missile bases, even if they are unprotected. And, of course, we are shielding them. Nothing can hit them. There are no systems capable of reaching these bases.

Second, it takes time to travel this distance, while our missile needs a few second to start dispensing warheads, and that's it, the ship has sailed. There is almost no chance of shooting down these missiles.

If the Western experts you mentioned think otherwise, they should suggest to those in the West and the United States who are paying them for their analytical services to conduct a certain technological experiment, a high-tech 21st-century duel.

Let them choose a target in Kiev, deploy all their air defence and missile defence forces there, and we will hit that target using an Oreshnik missile. We shall see what happens.

We are ready to conduct this experiment. Is the other side ready? In any event, we do not rule this out. What I want to say is that all of their air defence and ABM systems are operating.

It would be interesting for us. I am telling you what engineers, scientists and military specialists are telling me. They are also telling some things at the level of the US political leadership.

Let us hold this experiment, this technological duel, and see what happens. This would be interesting and I believe it would be useful for both us and the US side.

Konstantin Kokoveshnikov: Why this name?

Dmitry Peskov: Why this name?

Vladimir Putin: Honestly? I do not know.

Dmitry Peskov: Let's take one more question from the audience. Let's go over there. I can see. Rossiyskaya Gazeta. A question on peace perhaps?

Aisel Gereikhanova: Rossiyskaya Gazeta, Aisel Gereikhanova.

Mr President, you signed an executive order changing the nuclear doctrine recently. Do you think the West correctly took the signal and understood it properly?

Vladimir Putin: I don't know how they took it. You should ask them about it. I know what constitutes these changes – and it is not a new doctrine but actual changes. I will name some key aspects. We are talking about some new military hazards that may grow into military threats. They include missile defence systems and some other things that we list.

Then we speak about increasing the responsibility of non-nuclear states that may participate in an aggression against the Russian Federation alongside the countries that have nuclear weapons. If, like their allies, these countries also pose a threat to our sovereignty and Russia's existence, then we imply that we have the right to use our nuclear weapons against them.

Finally, another component related to nuclear arms management, and another, fourth important aspect is that we declared that, if similar threats are posed to Belarus, our ally and member of the Union State,

the Russian Federation will consider these threats as threats to Russia. And we will do everything to ensure the security of Belarus. We do this upon agreement with the Belarusian leadership and President of Belarus Alexander Lukashenko. I believe it is a very important component of the updated nuclear strategy of the Russian Federation.

Alexandra Suvorova: Mr Peskov, let's take one more question from the audience. I can see that you are holding the microphone.

Dmitry Peskov: Sure.

Darya Shuchalina: Mr President, please give the floor to the Arctic.

Dmitry Peskov: We agreed not to shout out questions and respect each other.

Vladimir Putin: Right, let's not shout and please be respectful. But we will listen to the Arctic. Let's do what the boss says.

Darya Shuchalina: Good afternoon, Mr President, Darya Shuchalina, Republic of Komi, Respublika newspaper.

First of all, thank you very much for returning our fellow Komi man, Rostislav Goldshtein. He is now Acting Head of Komi and let's just say he immediately got down to business because he knows the region very well. Thank you for your choice.

Vladimir Putin: He is a good manager and an empathetic person, stable and organised. I hope he will succeed.

Darya Shuchalina: Thank you for your choice.

Now, to proposals. In the Russian Arctic territories, in the Far East and in the Far North, as well as in the Republic of Komi, there are many residential areas with up to 2,000 residents. Unfortunately, these residential areas are not eligible for a very good state programme on construction of cinemas.

We know that people in the North are dedicated to their home regions; they are not moving to bigger cities and instead serving their country in their towns and villages. There are not many entertainment opportunities in the North. At this moment in time, when the patriotic film industry is growing in Russia, it would be great to have this criterion amended in the law and ensure that northern residential areas with a population of up to 2,000 residents be eligible for this programme. So that residents would be able to go and see films in comfortable modern cinemas.

As for the poster I am holding, you worked in our region as a member of a student construction brigade in your younger years, so you know that this Soviet-era mechanism was very effective. Unfortunately, today there is no legal framework for it.

Would it be possible to amend Federal Law No 44 regarding state and municipal contracts for budget-funded construction projects so that these student construction brigades can carry out at least 10 to 15 percent of contractual work? This way, young people can gain valuable work experience and earn some money. Companies could also benefit from these human resources, and this could serve as a development driver for the regions since they would be able to build social infrastructure they need.

Vladimir Putin: Could you repeat, please: where do these 10 percent come from?

Daria Shuchalina: I was talking about municipalities and regions reserving a specific share in construction contracts for student construction brigades.

Vladimir Putin: I see. You mean allocating some of the funds from the construction sector to these mechanisms?

Daria Shuchalina: Yes.

Vladimir Putin: I will discuss this with Mr Khusnullin. I think it is quite possible. We are currently working to revive this movement, it is re-emerging. I think this has already happened – I am referring to the student construction brigades as a movement.

The funding mechanism you described could probably be an option, and I think it has already been adopted, but let me check with Marat Khusnullin. I will raise this issue with him. Agreed?

Daria Shuchalina: I also had a question about cinemas.

Vladimir Putin: Right. Was it about gyms or cinemas?

Daria Shuchalina: I was talking about cinemas.

Vladimir Putin: What a surprising question, at least for me, you know.

Regarding the Arctic zone, let me tell you, first, that we have kept subsidised mortgages at a rate of two percent for this region, as well as for Russia's Far East. The Arctic can still benefit from two percent mortgages, and I believe this is something that matters a great deal for people there who have been eager to use this subsidy. We have also kept this two percent mortgage rate for the new territories. This is my first point.

Second, we have an entire programme for specific communities in this zone – I think that it covers 25 cities and metropolitan areas – and we will expand it to a nationwide effort covering 200 cities.

We are talking about small communities here. They may fall through the cracks of the initiatives to develop these 25 metropolitan areas and cities. Of course, we will try to come up with additional measures for these smaller communities and for the Arctic zone in general. It goes without saying that this is very important since most of them have a rather small population.

It could be that there was an idea that providing them with broadband internet and so forth would suffice. That said, I do agree with you that watching a film in a movie theatre creates a different kind of atmosphere, a special mood, if you will. I will look into this issue. Note taken.

Daria Shuchalina: Especially considering that we now have all these great Russian patriotic films...

Vladimir Putin: Indeed. But this is a separate topic. Many producers are leaving Russia, and we wish them well, nonetheless. But this has served as a development driver, including for the film industry. This is a fact.

History-themed films are very important too, considering the enthusiasm we are witnessing in our society and its unifying potential. We are witnessing a revival of our fairy tales, epic sagas and alike. I enjoy watching these films sometimes together with the small children in our family.

You are right. Note taken. We will try to find a way not to leave your request without a response.

Dmitry Peskov: Let's take another question from the audience and continue.

Dear friends, with all due respect, by asking two questions in a row, you are depriving some of your colleagues of the opportunity to ask their questions.

Vladimir Putin: Do not mind Mr Peskov, go ahead with your question.

Dmitry Peskov: Let's proceed this way, then.

Krasnoyarsk.

Dmitry Novikov: Good afternoon.

I am Dmitry Novikov with Yenisei TV channel, Krasnoyarsk.

Mr President, you once referred to Krasnoyarsk as the centre of Russia. The city is now preparing to celebrate its 400th anniversary.

Vladimir Putin: Sorry to interrupt, please do not take offense. I did not call it that way; it is, in fact, the geographical centre of Russia.

Dmitry Novikov: Yes, of course. The city is going to mark its 400th anniversary in 2028, and we would like to take this opportunity to invite you to join us in Krasnoyarsk for the celebration.

My question is this: the headquarters of RusHydro is currently relocating to Krasnoyarsk, following your initiative. Wouldn't it be logical to extend this approach to other companies, not only state-owned but also private businesses? For the region, this would mean additional tax revenues and new opportunities for development. Are you considering this possibility?

Thank you.

Vladimir Putin: Yes.

Firstly, I believe this is a very appropriate approach. Relocating certain entities, including federal bodies, to various regions of the country can stimulate development.

For example, we are working to consolidate the judicial branch in St Petersburg. This approach is common in some countries and serves to separate the judiciary from the Presidential Executive Office and the Government, making it more independent geographically. In this case, it also enhances St Petersburg's role as a functional capital city.

Other regional centres, such as Krasnoyarsk, certainly benefit from having a stronger tax base tied to local production. Ensuring that taxes are paid at the site of economic activity provides a boost to regional development.

We are committed to advancing this initiative, though the process is complex.

Regarding RusHydro, when Viktor Maryin was being considered for the leadership role, I asked him directly if he was prepared to relocate to Krasnoyarsk. His response was, “Yes.” I followed up with, “What about your wife?” to which he replied, “She will agree.”

This process takes time, as you can understand. The necessary personnel need to be in place. Relocating people from Moscow is challenging, not because they are lazy or unwilling to move to Siberia, but due to other considerations like children, schools, kindergartens, universities and other family matters. It is indeed a difficult process. Personnel need to be trained on site. However, efforts are underway, and RusHydro is in the process of relocating.

We will also work hard so that major corporations and, I repeat, certain other government bodies move to other regions of Russia. This is a vast country – the world’s biggest, in fact. Of course, we must ensure that major manufacturing hubs, corporations and government institutions are spread out across its territory. However, there are also certain limits here, since the President and the Government must be close to one another as they must work closely together.

Nevertheless, we must pursue this path, and this is what we will try to do.

Thank you very much for the invitation.

Alexandra Suvorova: There were business leaders who went as far as to suggest moving the capital to Krasnoyarsk. This is something they have discussed.

Vladimir Putin: There was Krasnoyarsk, and Irkutsk too. In fact, remember Peter the Great? What did he want to do? He wanted a capital in the south, and was choosing between St Petersburg and Taganrog, a southern city. He wanted to move the capital to Taganrog. At the outset, he wanted to have the capital of the Empire in Taganrog.

Dmitry Peskov: Mr President, excuse me, but I spotted Andrei Rudenko, our war correspondent from Donetsk. I feel that I must give him the floor.

Vladimir Putin: Go ahead, Andrei.

Andrei Rudenko: Mr President, I have been working as a war correspondent in Donbass since 2014. Today, I am heading Donetsk State Television and Radio Broadcasting Company.

Here is my question, and it is quite a serious one. There is a massive reconstruction effort underway across Donbass, as well as in the Kherson and Zaporozhye regions. However, the war continues in our region. Our troops are gaining ground, while the enemy keeps destroying cities and villages. Do we have the strength and the resources we need for rebuilding and restoring our historical territories after recovering them?

Vladimir Putin: We do. Make no mistake about that. We have a large-scale programme for rebuilding and developing these territories until 2030. We have already embarked on this effort, and it will carry on across several domains, which include rebuilding roads, housing, putting utilities back into operation, as well as social and cultural infrastructure.

Speaking of roads, our plan consists of bringing the entire road network in these regions in compliance with Russia's national standards within three years. You come from this region, and you know that this effort is already underway. There is a very useful and feasible initiative to build a ring road circling the Sea of Azov, which is now part of Russia's internal waters. It will be just as good as the Tavrida motorway in Crimea, with four lanes and all the amenities a highway of this kind must offer.

Part of this road has already been built, even if it is just the beginning. It is quite short, just 40 kilometres, and runs from Taganrog to Mariupol. However, our plan consists of extending it to create a full circle around the Sea of Azov. There is also another road linking Mariupol to Donetsk. It is almost 100 kilometres long, or 97, to be more precise, if I am not mistaken. We will restore the road network in its entirety.

As I have said, the funds have been earmarked. Some social facilities have been finished and put into operation, like a world-class perinatal centre in Donetsk and a medical centre in Mariupol. A large children's hospital is to be built in the south of the Zaporozhye Region. Local residents have submitted that request, and the governor insisted that they need it. I believe that this project is at the design stage. We will certainly build it.

Overall, we have big plans in these spheres until 2030. We have rebuilt 21,000 facilities, 11,000 of which have been financed from the federal budget and 10,000 from the budgets of regions across the Russian Federation that are overseeing these projects.

I would like to use this occasion, and looking directly into the camera, to express gratitude to the heads and people of these regions for their selfless and tremendous assistance. It is a national mission. I mentioned the projects that have been completed, but we need to restore and rebuild another 20,000 facilities within five or six years, and we will do so.

Andrei Rudenko: Mr President, I would like to say the following about the Lugansk People's Republic, which never had good roads under the Ukrainian government. Today, the roads are ideal throughout the Lugansk People's Republic. Our people are extremely grateful for this.

Vladimir Putin: This is the basic thing, which we can and must do. We will do more.

As for individual regions, I would like to address people in these regions and throughout Russia, so that everyone in the country knows that these regions have good development potential and large tax potential. I believe that tax collection in the Lugansk People's Republic has increased by 97 percent. The relevant figure for Donbass as a whole is 69 percent. The tax collection in the Zaporozhye and Kherson regions has increased several-fold. The figures themselves are smaller there because their tax base is smaller, but the collection of taxes has increased manyfold, by more than 200 percent. In other words, their tax base is good, their revival is rapid, and these regions are approaching the level of self-sufficiency.

It is true that we need to support people, providing assistance and giving a helping hand at the right time. Our country is doing so and will continue doing so until these regions' complete incorporation into Russia not only in legal terms but also in terms of social and economic development.

Alexandra Suvorova: Mr Putin, I have a follow-up question. Did you mean tax collection when you spoke about taxes in these regions?

Vladimir Putin: Yes, I meant the collection of taxes.

As I have said, I could be wrong but the collection of taxes has increased by about 79 percent in Donetsk, over 90 percent in Lugansk, and over 200 percent in Kherson and Zaporozhye regions. The absolute figures are smaller in the latter two regions because the tax base is smaller there, but it is an upward trend, and it is stable.

Alexandra Suvorova: Incidentally, we are receiving a lot of different questions from the new regions, particularly concerning the calculation of pensions.

The point is that often, the length of work in Ukraine is not being taken into account. People simply don't have the supporting documents.

Let us now turn our attention to a video message from pensioner Leonid Shipilov.

Vladimir Putin: Please.

Leonid Shipilov: My name is Leonid Shipilov, I am a pensioner from Krasny Liman. I have an employment record spanning 45 years. Currently, I live in Donetsk with my daughter, due to the ongoing hostilities in Krasny Liman.

In May 2022, my home was destroyed in a shelling, resulting in the loss of my employment record book. Consequently, I am unable to secure a fair recalculation of my pension. The only document that could verify my employment history is the OK-5 certificate.

In July of this year, I submitted this certificate to the Pension Fund in the Kalininsky District of Donetsk, yet I still have not received a response.

I appeal to you for assistance in clarifying this matter.

Vladimir Putin: Mr Shipilov, these may appear to be everyday issues, yet they have great importance to people. I fully understand this, as it is essential to validate one's employment history. Previously, it was challenging to do so, but a recent legislative change has been enacted, recognising all prior employment records, even from years or decades past. I believe the pertinent federal law was enacted in November. Therefore, there are now regulatory and legal frameworks in place to address your concern.

All such matters, even in the absence of documents, can be resolved through witness testimonies and the decisions of interdepartmental regional commissions. I urge the republic's authorities to streamline their work in a way that ensures that these issues are resolved without unnecessary red tape.

I recently spoke with Denis Pushilin, the head of the Donetsk People's Republic. He mentioned hosting a delegation from Africa. We are delighted to welcome our friends and guests, and he himself is planning a visit to Africa, which is commendable and necessary for maintaining relations. However, I would like to remind him of Mr Shipilov, who also requires attention. I trust that the interdepartmental regional

commissions will be duly organised. I reiterate, especially since a legal foundation for this is now in place: the relevant federal law has been adopted.

Alexandra Suvorova: Indeed, there are numerous queries regarding the loss of documents. This issue extends beyond pensions to include education and property titles. I would like to share a few more messages.

Vladimir Putin: As I have mentioned before, these matters are resolved through the decisions of interdepartmental commissions and based on what is termed witness testimony. We are not talking about legal proceedings, but rather obtaining reliable information from neighbours, former colleagues, and so forth.

Alexandra Suvorova: Housing is another major issue in this region.

We have numerous appeals and calls that came from Mariupol from people who expected to receive housing as compensation, but so far, that has proved problematic. I will quote a few of them.

“Mariupol needs help in building the compensatory housing,” this text message says. “The new buildings were completed last spring, but they have not been open for occupancy yet,” Alexei Tsygankov writes – this is one of the appeals.

In fact, there are many of them – these are just a few that we have selected.

Vladimir Putin: We are paying a lot of attention to Mariupol, which it certainly deserves, as it is a large city. Before the outbreak of hostilities, it was home to about 430,000 people. Local authorities are telling me there were even more people than that, closer to 470,000. More than 3,000 apartment buildings [may be needed] there. I have visited Mariupol; I know this, and my colleagues from the Government report to me regularly. About 1,700 multifamily houses have been rebuilt, but not all of them have been commissioned yet. Paperwork needs to be completed on more than 500 projects, but the buildings are already there.

What is the situation there? Residential buildings are being repaired or rebuilt. Where a building cannot be repaired, local authorities make the decision to demolish it and allocate the land for commercial development. Once developers build new housing there, buyers can purchase apartments with a mortgage at 2 percent.

Home loans with 2-percent interest continue to be available in Russia’s new regions. In fact, that has triggered quite a construction boom there. According to our estimates, at least 300,000 people have returned to Mariupol, and its population continues to grow rapidly.

We are also working to improve local roads, schools, social and cultural facilities, and healthcare – a large medical centre has recently opened there – and educational institutions. We will certainly continue this work. As for housing, again, many projects have been allocated to commercial developers. However, the local residents are entitled to new housing as near as possible to the place where they used to live. Better still, if their building has been repaired, they should be given apartments there. If a development company is building a new multifamily house in its place, they need to ensure that former residents receive new housing in the area, not on the outskirts or even outside the city boundary. There are 5,000 ownerless apartments in the city. Local authorities need to stop holding them, but to distribute

them among people – legally, of course. It is important to bear in mind that people are still returning, so we need to give some thought to the procedure. But these issues must be addressed.

One thing I can say for sure: everyone who has the right to compensation will receive a compensation. If not, please contact the relevant authorities at the local or federal levels. I believe there are decision-making centres at both levels; they have been created. If my memory serves me correctly, the relevant agencies are located on Marata Street. Marat Khusnullin has reported this to me.

Alexandra Suvorova: It is easy to remember.

Vladimir Putin: It is easy to remember. If I am not mistaken, I think they are there.

Dmitry Kulko: Mr President, speaking of the southern regions, I would like to highlight the environmental impact caused by the sinking of two tankers during a storm in the Kerch Strait.

The petroleum products were washed ashore, onto a beach near Anapa. Currently, the pollution is spreading in the direction of Gelendzhik.

The situation is worsening. Currently, the Emergencies Ministry staff, volunteers, and local residents are involved in the cleanup effort. They are making videos, posting footage on social media, and have sent a few to our programme. Let us take a look.

Vladimir Putin: Please.

(A video clip rolls.)

Dmitry Kulko: Mr President, these harrowing images come from a beach resort. I am aware of the fact that you ordered to clean things up as soon as possible. Is there any way to speed up this process and minimise the impact?

Vladimir Putin: First, this is, of course, an environmental disaster. This is absolutely clear. Law enforcement agencies are in the process of assessing the ship captains' actions. I was informed that, in their opinion, the captains violated certain rules and failed to seek shelter in time. Other ships found safe spots before the storm and are doing just fine, but these did not and dropped anchors in the wrong places. Let the relevant services within the Ministry of Transport and law enforcement agencies deal with it. That is my first point.

I am not sure what is happening right now, but the 4- to 5-point storm raged on yesterday, posing a challenge to relief efforts. I think, by Saturday, the sea will calm down, and cleanup operations can proceed more effectively.

Second, the reason I call this a major disaster is because almost 40 percent of the fuel spilled, which is an established fact. Some tankers have submerged, some have sunk, and others remain partially submerged near the shore. We need to address this.

Various services are at work, including the Ministry of Natural Resources, the Ministry of Transport, and the Emergencies Ministry. This work must be coordinated. I asked the Prime Minister to set up a working group headed by Deputy Prime Minister in charge of transport Vitaly Savelyev. All services are at work, and I receive regular updates on the developments.

We need to study the tankers' condition. We also need to think about the steps we need to take in the near future. This issue must be addressed in stages.

Stage one: Right now, we must contain the spill with containment booms to prevent the spill from spreading further.

Stage two: The fuel that has washed ashore must be removed. Governor (of the Krasnodar Territory) Veniamin Kondratiev reported to me yesterday or the day before yesterday saying that he had about 4,000 people working in the area. According to him, no additional measures are needed at the moment. However, we will, of course, deploy more Emergencies Ministry teams, if needed.

This is the task at hand. We are dealing with fuel oil, which displays specific properties at certain temperatures. It is a solid material that washes ashore and must be removed. However, a portion of this fuel oil has already settled on the seabed, and by May, when the water temperature rises, it could resurface and wash ashore again. We must get ready for that now. One way or the other, we need to remove the semi-submerged tankers from the water. These tankers need to be secured now to prevent further leakage. We will need to use containment tools, known as "towels," and later draft a project which is a major undertaking, and to pull the tankers with fuel on the shore.

This is a major effort. The Government is working on it, and I very much hope that no time will be wasted in addressing it.

Mr President, if you don't mind, I see American journalists over there.

Vladimir Putin: Go ahead.

Dmitry Peskov: I can see NBC News. Please.

Keir Simmons: Mr President, Keir Simmons, NBC News.

Two questions in English, if you don't mind. Sorry, Mr Peskov.

The first one is about President-elect Trump.

Mr President, you have failed to reach the objectives of your special military operation. Large numbers of Russians have died, including a general assassinated here in Moscow this week. And the leader of Syria, who you supported, has been overthrown.

Mr President, when you face President-elect Trump, you will be the weaker leader. How do you propose to compromise? What are you going to offer?

And my second question, Mr President, is this: the mother of an American journalist who is missing in Syria, Austin Tice, has written to you and asked for your help to try to find him because, she says, you have such connections with the Syrian Government and former President Assad.

Are you prepared to ask President Assad for information about what happened in Syria to try to find the missing, including this American journalist?

Vladimir Putin: Could you repeat the part of your question about the journalist? Where did the journalist disappear? When and what happened to him there?

Keir Simmons: I have a letter here sent to you this week by the mother of an American journalist who is missing in Syria. He has been missing for 12 years. He is called Austin Tice. In this letter, she is asking for your help to try to find him because she says you have such close connections to the former Syrian Government, to President Assad.

Will you ask President Assad for information about the missing in Syria and about Austin Tice, this woman's son? She says she is prepared to come to Moscow if it will help to find out anything she can about her son.

Vladimir Putin: I see. Please sit down.

Frankly, I have not met with President Bashar al-Assad after his arrival in Moscow. But I plan to do it and will certainly talk to him.

We are adults and understand that the person disappeared in Syria 12 years ago. Twelve years. We realise what was happening in Syria 12 years ago. The country was caught in active military action, on both sides. Does President al-Assad know what happened to this American citizen, the journalist who, as far as I understand, was working in the zone of hostilities? Nevertheless, I promise that I will definitely ask him this question just like we can forward this question to the people who are controlling the situation on the ground in Syria today.

You asked what we can offer or what I can offer to newly elected President Trump when we meet.

First of all, I don't know when we will meet because he has not said anything about it. I have not talked to him for more than four years. Of course, I'm ready to talk any time; I will be ready to meet with him if he wishes. You said that this conversation will take place with me in some kind of weakened state.

Esteemed Mr Simmons. Why did I say "esteemed"? Because, despite all the persecution of Russian media, we allow you to continue working in Russia and you can do so freely. It is good enough. You and the people who pay your salary in the United States really want to see Russia in a weakened state.

My opinion differs. I believe that Russia has become significantly stronger in the past two or three years. Why? Because we are becoming a truly sovereign country, and we barely depend on anybody. We are capable of firmly standing on our feet when it comes to the economy. I have already talked about economic growth rates.

We are strengthening our defence capability. The combat readiness of the Russian Armed Forces is the highest in the world today. I assure you it is the highest.

The same is true of our defence industry. We are increasing the production of everything our army and navy need now and will need in the future. We are doing so confidently and quickly, unlike our opponents.

I have already spoken about the successes of our armed forces, which are due in large measure to production growth in the defence industry of the Russian Federation. As I have said, we are doing this confidently and quite rationally.

It has been said that our forces are advancing along the front line. One explanation for this is the existence of the equipment I have mentioned. Yes, in fact all NATO countries are fighting against us.

We spoke about our inflation. And what is the situation over there? Take a 155 mm shell, which cost 2,000 euros two years ago and now costs four times more, 8,000 euros. If this trend persists, two percent of GDP spending on defence in NATO countries, which President-elect Donald Trump always insisted on, will not suffice. Even three percent will not be enough. The training and combat standards and the morale of the Russian armed forces are higher than those of any other army in the world.

That is why I believe that Russia has largely achieved the state we wanted to achieve. It has grown stronger and become a truly sovereign state, and we will make decisions without looking at other people's opinions, only with our national interests in mind.

You have mentioned Syria. You and, as I said, those who pay your salary would like to present the current developments in Syria as Russia's defeat. I assure you that this is not the case, and here is why. We came to Syria ten years ago to prevent the creation of a terrorist enclave there, like the one that we saw in some other countries, for example, Afghanistan. We have achieved that goal, by and large.

Even the groups that were fighting against the Assad regime and the government forces back then have undergone internal changes. It is not surprising that many European countries and the United States are trying to develop relations with them now. Would they be doing this if they were terrorist organisations? This means that they have changed, doesn't it? So, our goal has been achieved, to a certain degree.

Next, we did not deploy any ground forces in Syria; they simply were not present there. Our presence consisted solely of two bases: an air base and a naval base. The ground operations were conducted by the Syrian armed forces and, as is widely known, there is no secret here, certain pro-Iranian combat units. At one point, we even withdrew our special operations forces from the area. We were not engaged in combat there.

So, what transpired? When armed opposition groups advanced towards Aleppo, the city was defended by approximately 30,000 personnel. However, when 350 militants entered the city, the government forces, along with the pro-Iranian units, withdrew without resistance, demolishing their positions as they left. This pattern was observed across nearly the entire Syrian territory, with only minor exceptions where skirmishes occurred. In the past, our Iranian friends requested assistance to move their units into Syria; now they have asked us to help withdraw them. We facilitated the relocation of 4,000 Iranian fighters to Tehran from the Khmeimim air base. Some pro-Iranian units withdrew to Lebanon, others to Iraq, without engaging in combat.

The current situation in the Syrian Arab Republic remains challenging. We sincerely hope for peace and stability to be restored. We maintain dialogue with all groups controlling the situation there and with all regional countries. An overwhelming majority of them have expressed interest in retaining our military bases in Syria.

I do not know, we must reflect on how our relations will evolve with the political forces currently in control and those that will govern this country in the future – our interests must align. Should we remain, we must act in the interests of the host nation.

What will those interests entail? What can we do for them? These questions demand careful consideration on both sides. We are already capable of offering assistance, including utilising our bases – we have extended this proposal to our partners within Syria and neighbouring nations. For instance, we suggested employing the Khmeimim air base for the delivery of humanitarian aid to Syria, and this was met with understanding and a willingness to collaborate. The same applies to the Tartus naval base.

Therefore, for those who wish to depict Russia as weakened... since you are an American, I would like to remind you of a well-known writer who once remarked: “The reports of my death are greatly exaggerated.”

Should there be an opportunity for a meeting with the newly elected President, Donald Trump, I am confident there will be plenty to discuss.

Dmitry Kulko: Mr President, I would like to remind you of another question that my colleague asked about the murder of General Kirillov.

Vladimir Putin: Yes, about the murder of General Kirillov.

You have mentioned this was an “attempted assassination.” I thank you for this, because you have indirectly acknowledged that it was a terrorist attack. Why? Because the modus operandi used by the perpetrator for this murder endangered the lives of many.

The regime in Kiev has repeatedly committed similar crimes, acts of terror, and terrorist attacks against many citizens of the Russian Federation, let alone what they are doing in Kursk now, firing at civilians – I mean in the Kursk Region – and in other regions of Russia. They have killed journalists, your colleagues – committed terrorist attacks against journalists.

However, we have never heard – I am not referring to you personally – anyone from the Western journalistic corps openly condemn such attacks. But I am grateful to you for remembering this at least.

Dmitry Peskov: Let’s engage with the audience some more.

Alexandra Suvorova: Go ahead.

Dmitry Peskov: They are showing great interest.

I see a ‘Tatars. BRICS’ poster. We were in Kazan just recently.

Vladimir Putin: I am sorry, I would like to address your American colleague. Can you hear me? If you have any more questions, please ask.

Dmitry Peskov: Let’s go back to Kazan now.

Vladimir Putin: All right.

Do you need some time to think? You can gather your thoughts while we talk to the Tatars. After that, we will talk with the Americans.

Dmitry Peskov: Go ahead, please.

Keir Simmons: My question is, are you prepared to compromise in anyway over Ukraine? You say that Kiev should compromise, the Ukrainians should compromise, but what are you prepared to offer in the potential negotiations potentially led by President-elect Trump?

Vladimir Putin: I apologise for missing this part of your question, which is very important.

Politics is the art of compromise. We have always said that we are ready for both negotiations and compromises. The problem is that the opposing side, both literally and figuratively, rejected negotiations. We, on the contrary, have always been willing to talk, and talking always leads to finding a compromise.

We did reach an agreement in Istanbul in late 2022. I repeat for the umpteenth time: the Ukrainian side initialled that document, which meant that generally, it agreed with what it contained. Suddenly they wanted out. It is clear why. Because your ally, Mr Johnson, the man with an iconic hairstyle, told them they were to fight to the last Ukrainian. This is what they are doing. They will soon run out of Ukrainians who want to fight. I believe there will soon be no one left who wants to fight.

So, we are ready, but we need that country to be ready for both negotiations and compromise.

Dmitry Peskov: Thank you.

Kazan, please.

Vladimir Putin: We have talked with the Americans, now we will talk with the Tatars.

Artur Khalilullov: Good afternoon, Mr President.

Thank you for the opportunity to ask my question. I am Artur Khalilullov from Tatar Inform.

BRICS has obviously been taken to a fundamentally new level after the Kazan summit. In fact, I cannot even remember that dozens of world leaders, including Xi Jinping and Narendra Modi, gathered in Moscow.

Have your expectations regarding opposition to the Western world order materialised? That was my first question.

I also have a follow-up question. Last year, you told me personally in response to my question that Tatarstan is an example of peaceful coexistence of different cultures, nations and religions. The same can be said about BRICS, because BRICS is a group of widely different countries. This brings me to my question. Do you think that Kazan could become the seat of the BRICS headquarters? Of BRICS as a whole or its Russian part?

Thank you.

Vladimir Putin: Artur, you have said that so many world leaders have never met in Moscow. This is correct, they did not, but they have met in Kazan. So, we are grateful to Kazan for giving us this opportunity. This is the first point.

Second, we are not planning to establish a headquarters now. There are several instruments that have been created and are working in the interests of our group. But we will certainly make use

of the possibilities offered by the capital of Tatarstan, which have been created there over the past decades.

Kazan has made an astonishing leap in its development. I believe, and it is not an exaggeration, that Kazan is one of the best cities in Europe. I am pleased to say so. We are proud of Moscow, which is one of the largest and best mega-cities in the world, but Kazan is developing very rapidly and actively.

I remember visiting it with Mintimer Shaimiyev. I have told before that we entered a mud hut on the outskirts of Kazan, a real mud hut where people lived. It was a deep hole with a roof above it. However, as is typical of the Tatar culture, it was very clean, and there was tasty chak-chak fried dough dessert on the table.

You will not see anything like this in Kazan now. The city is developing. It is beautiful, and it even has a metro system. I talked with Mr Shaimiyev back then that this needed to be done, and it has been done. Your new leader, Rustam Minnikhanov, has taken over the baton and is working very effectively.

Overall, people in Kazan and Tatarstan as a whole are talented. They come from different ethnic groups, but they live in peace and accord with each other, respect each other and their traditions, and I know that they attend each other's religious feasts. You are doing this very well. I congratulate you on this.

There is another aspect that I would like to highlight.

You said that BRICS has evolved into a tool for countering the West. This is not true; you are mistaken. BRICS is not a tool for countering the West. Our work is not aimed against anyone. We focus on our own interests and the interests of the group's member countries. Giving BRICS any kind of a confrontational agenda is not what we are after.

This group has grown within a very short period of time and expanded its ranks. As you know, and we have mentioned this many times, so I will not repeat it to save time, many countries have expressed interest in developing the BRICS format.

Why? Because ensuring reciprocity, mutual respect and respecting each other's interests have been our core guiding principles in this effort. We adopt all decisions by consensus, which is a very important point. There are no small or big countries within BRICS, no countries that are more or less developed: this is a group based on common interests. And there is one common interest: development. We try to identify available tools and create new ones for generating more economic growth and transforming the structure of the economy in order for it to be in step with the global development agenda, ensuring that BRICS countries and the group as a whole are at the forefront of this progressive movement. This is the way we will be operating.

Thank you very much.

Dmitry Peskov: I suggest that we take another question from the audience.

I see an unconventional media outlet. It is quite new and rather popular too. Readovka, please go ahead with your question.

Vladimir Putin: What was the title again?

Maxim Dolgov: Good afternoon, Mr President.

Maxim Dolgov, Readovka.

Here is my question. Many countries have been facing the issue of ageing and population decline these days, and Russia is no exception. It is interesting that there have been all these measures to increase the birthrate, and you have recently signed a law establishing the Council for Demographic and Family Policy. But if these laws fall short of their promise, what will we do?

Thank you.

Vladimir Putin: We will improve them.

Take your seat, please.

This is an extremely important matter. In fact, this is one of the key issues for Russia, and not only for our country. You were right to say that demography has become a matter of grave concern not only for Russia, but also for many countries around the world.

The Soviet Union was able to achieve replacement-level fertility of two points. What does the fertility rate mean? It stands for the number of children per woman. There was a time in the history of the Soviet Union when the fertility rate was equal to two. And there was a time in Russia's recent past when we reached a rate of 1.7. Unfortunately, it fell to 1.41. Is this a lot or a little? Of course, it is very little. However, there are other countries facing a similar situation and located in a similar region. This includes Finland, where the birthrate is even lower, and I think Norway is at the same level. The fertility rate in Spain is lower, and this is also true for many other countries. In some developed countries, for example, in Japan, it is even lower than that, and South Korea has a fertility rate as low as 0.7. This is terrible. We have a slightly better situation in Russia, but just to reach the replacement fertility rate we must have 2.1 children per woman, and we need at least 2.3 for our population to grow.

I have said many times before what happened during the previous decades. There was a sharp decline in birth rate during the Great Patriotic War, especially in 1943–1944, and then, after the collapse of the Soviet Union, the birth rate sank again similarly.

What happened next? I will take a couple of minutes to explain. When a low-numbered generation reaches the reproductive age, it reproduces in similarly low numbers. These two birth rate decline trends – the trend of the Great Patriotic War and the trend after the collapse of the Soviet Union – later converged, continuing in similar fluctuations to this day. The number of women of reproductive age has gone down 30 percent. We need more girls, young women.

What are we doing to improve the situation? An entire programme was developed. We address this matter continuously, improving the available instruments. Once again, it works differently in different periods of time.

First, there is a benefit for families with children that is quite effective. We pay this benefit from the moment a woman becomes pregnant and until the child reaches 18. This benefit is now available to over 10 million children and around 320,000 pregnant women.

Second, we invented a unique tool that no other country offers – maternity capital that we continue to replenish.

Next, family mortgage rates with 6 percent interest are still available. I suppose we will talk more about mortgages and construction later. In essence, family mortgage is still available.

We pay 450,000 rubles to families who have a third child, specifically to pay their mortgages.

We are developing the system that encompasses healthcare, childhood and maternity, and we will continue to do everything and improve these instruments further. These matters are very important.

I want to take this opportunity and address the heads of all Russian regions: this is what your working day should begin with and end with because it is a challenge for many countries, Russia included.

The population is what makes a country. One territory is good, but it must be populated by the citizens of this country.

Perhaps we are doing a lot, but it is perfectly clear that these measures are not enough. We will be able to say that yes, we are doing something useful when we can overturn this trend and achieve the indicators I mentioned earlier.

Alexandra Suvorova: In fact, we have received many messages on this subject, including from large families. We have a whole selection of those.

The problem is as follows. You have mentioned the uniform allowance, but when the average per capita income in a family exceeds the regional subsistence minimum, the family does not qualify for the benefit. However, in many cases, this is due to a long streak of inaccuracies, or that income is literally just a few kopecks or rubles above the required level, but they fail to qualify anyway.

Now we are about to be joined by Anna Shenkao from Surgut, the mother of five.

Ms Shenkao, good afternoon. Please ask the President your question.

Anna Shenkao: Good afternoon, Mr President.

My name is Anna Shenkao. I was born and live in Surgut, Khanty-Mansi Autonomous Area, and I am a mother of five. One of my children also has a disability.

I have been applying for the relevant benefits every month since July 2023, but all my applications have been turned down because our per capita income exceeds the regional minimum subsistence level. In some cases, it was only 78 rubles above that level, but I was rejected anyway.

This is what I would like to ask. Is a child's disability pension considered to be family income? Why are they counting the previous year's income? And there is something else: my husband is officially employed, which implies full compliance with the tax laws. However, when they evaluate the per capita income, they use his gross pay, including tax, which the employer in fact deducts. We do not receive this money, so I would like to ask why it should be considered part of our income.

And, if you do not mind, I have one more question – about holidays.

How can a large family – or not necessarily a large family – afford a holiday in this situation? We really want to go somewhere, but when we analysed airfares a few days ago, most of them hovered around 140,000 –150,000 rubles one way.

I would really like to hear an answer to my question.

Thank you.

Vladimir Putin: Ms Shenkao, you said that you have five children, didn't you?

Anna Shenkao: Yes.

Vladimir Putin: I congratulate you on this. This alone makes you a happy person.

Anna Shenkao: Thank you.

Vladimir Putin: I am sure of that. I want our viewers and listeners to join me in celebrating your family, and follow your example, first of all.

Secondly, this is the usual formula for evaluating someone's income. They take into account everything, and they do use the previous year's figures. I cited evaluating economic growth as an example – in any case, it is recalculated only the following year. Therefore, they consider the previous year's income.

Certainly, we can deliberate on this matter. I will ask Ms Tatyana Golikova and the Ministry of Labour and Social Protection to examine the issue. However, that is not the most important point – what truly matters is that the issue you mentioned might arise for other reasons, namely a small excess of income over the threshold at which payments under the flat-rate allowance are still provided. That is purely a procedural approach.

We have given a lot of thought to how we can avert the situation that you and your family are experiencing. In principle, the decision has already been reached – we should recalculate personal income tax and subsequently refund at least seven percent of the tax your family has paid.

We will see how this unfolds. Hopefully, it will offset your loss from not receiving the respective money under the allowance you mentioned. We will see how it all pans out.

The Government's assumption was that this measure would reimburse you the amount that was underpaid as part of the allowance you receive. That decision was made recently. I reiterate my hope that this issue will be resolved. That is the first point.

Secondly, with regard to holidays and travel, you are right – such a problem does exist. I have already spoken to the relevant executives on this matter.

By the way, our air transportation industry is operating steadily and quite successfully. Last year, they carried, I believe, 105 million passengers, and this year they are set to transport 111 million passengers. What is going on there?

There is a provision – it is stated in the code – that multi-child families, families with children, are entitled to a 50 percent discount, I think, on fares. This applies to the standard fare.

What do the airline companies do? They introduce their own discounts – minor, insignificant, but these are not standard fares. Then they claim, “We have a discounted fare, we already have a non-standard fare, so we will not give a 50 percent discount.”

This practice must be curtailed. I fully agree with you and urge the Government, together with the airlines, to address this problem no later than January 14 next year. We will solve this problem.

As for excess income, the refund of seven percent of the personal income tax, we will also observe how it works.

Anna Shenkao: Thank you.

Vladimir Putin: Thank you very much.

Dmitry Peskov: Mr President, I saw there were more questions about demographics.

Vladimir Putin: Go ahead.

Dmitry Peskov: It says here, “Chechnya, important.” It is also about demographics.

Vladimir Putin: Yes, please. Where are you?

Ruzana Veselayeva: Vainakh State Television and Radio Broadcasting Company, Chechen Republic.

Mr President, you often emphasise the importance of demographic growth and have used the Chechen Republic as an example in this regard.

Vladimir Putin: Yes.

Ruzana Veselayeva: Perhaps, it is worth launching a dedicated programme?

Vladimir Putin: I have mentioned the Chechen Republic and Tuva. In Chechnya and Tuva, demographics are good.

Ruzana Veselayeva: But would it not make sense to introduce a separate programme for regions that are most efficient in this area?

If I may, a second question. Last year, you approved the high-speed railway strategy, which includes three stages. One of them – the third stage – covers the Moscow-Adler route.

According to most experts, including Grozny and Makhachkala in the Moscow-Adler Railway would make the project more cost-effective and efficient. What is your opinion on this? Do you see it as a practicable solution?

Thank you.

Vladimir Putin: Thank you for the question.

You mentioned that demographics are in good shape in Chechnya.

Please take a seat.

Yes, demographics are indeed in good shape in Chechnya and Tuva. These are two federal constituent entities where the demographic situation is favourable.

In this regard, are additional measures needed? I would say we should simply say thank you, provide support, and encourage others to follow your example.

For regions where the birth rate is below the fertility rate of 1.41, there is a clear need for a dedicated programme to support them.

This is precisely what we are planning to do for these regions. There are about 35 of such regions, if memory serves. A separate support programme is being developed for these areas, with a funding of 75 billion rubles over the next few years. That is what we are going to do.

Now, regarding the Moscow-Adler-Grozny-Makhachkala railway. We have several questions in this regard. First, we need to ensure traffic along the Black Sea coast, provide proper access to Sochi, and eliminate traffic jams that tend to snarl traffic near Adler, especially during the tourist season. The congestions often leaves people stuck for hours.

This situation arose because, during preparations for the Olympic Games, a bypass road for Sochi was built, which created a bottleneck. It is, in fact, an old road that was slightly renovated, but two traffic flows – the old traffic flow and the Greater Sochi bypass flow – are merging there, creating a single congested access to Adler. This bottleneck needs to be broken up to make sure vehicles are not stuck in traffic. By the way, Chechen construction companies will be involved in this work near Adler, though I am not sure about the details.

With regard to Grozny-Makhachkala, this is also an important consideration which should be addressed in the future. It is a good idea.

Not to hurt anyone's feelings, let's take "Chechnya. Magistry" (masters). Did you want to say the same thing or not?

Khamzat Batukayev: Khamzat Batukayev, Grozny Chechen State Television and Radio Company.

My colleague has already asked the question we had for you and you answered it. Thank you very much. However, when you were talking to my colleague from Tatarstan, you shared the way you view Kazan.

By the way, I was also at the BRICS Summit. And this reminded me that you had visited the Chechen Republic not that long ago. So I am asking you: Is Grozny a beautiful city?

Vladimir Putin: It is great. You know, it is a miracle, a present-day miracle for Russia.

You know, I flew over Grozny during the harsh years when we were still fighting terrorists there, primarily international terrorist groups. The city was one big ruin, and you could hear machine gun rounds targeting the helicopter from these ruins.

At the time, there were quite a few people in Chechnya who talked about moving the capital to Gudermes. However, both the first President of the Chechen Republic, and the incumbent President spoke out against these proposals arguing that Grozny had established itself as Chechnya's historical capital, a capital of the Chechen people, and that it would be rebuilt at whatever cost.

What has been achieved in Grozny over the past two years is a true miracle. Of course, credit for these achievements primarily goes to the current President of the Republic. Even more importantly, this is something the people of Chechnya achieved together. Their hard-working nature and their talent played an instrumental role. I am not even talking about the mosque. What a beauty! And look at all these new buildings and architectural solutions. We cannot fail to feel pride for what has been achieved in Chechnya and in Grozny over the recent years.

I would like to commend and congratulate you on these achievements.

Khamzat Batukayev: Mr President, I remember what you said during your visit to the mosque when you were talking to Chechnya's mufti. You made an important point when you said that in terms of their spiritual and moral principles, Islam, the Orthodox faith, and all the traditional religions in general, share a common denominator and foundation.

I would like to ask you about the Russian Special Forces University. You have visited this institution. It has recently been given your name, to honour you as the Supreme Commander-in-Chief. What do you think about this training centre? Should it be expanded? Could you share your vision or your assessment? What do you think about it?

Vladimir Putin: It is great. We really need it. The National Guard has been using it all the time. After all, it trains not only people from Chechnya, but from across the country.

When I talk to some fighters who are currently fighting in the combat zone and who do not come from Chechnya, I ask them: "Where are you from?" And they tell me that they got their training at this centre. This centre plays an important role in enhancing our national defence capabilities.

Thank you.

Dmitry Kulko: Let us take a couple of more questions from the audience. I see our Chinese friends from Xinhua, the sector right in front of me.

Huang He: Mr President, good afternoon. My name is Huang He, and I represent the Xinhua News Agency of China. I am delighted to pose a question to you today. I have just two questions.

The first question is this: How do you evaluate the current state of China-Russia relations? Please share with us the main outcomes of cooperation between our two countries.

The second question: Next year, China and Russia will jointly celebrate the 80th anniversary of Victory in the Second World War and the 80th anniversary of the founding of the United Nations Organisation. In your view, what role do the interaction and coordination between China and Russia play in upholding global strategic stability and international justice?

Thank you very much.

Vladimir Putin: We often discuss cooperation between Russia and the People's Republic of China. Next year, we will celebrate 75 years of diplomatic relations between our countries. A great deal has transpired in our relations over these years, but in the past decade, the level and quality of our relations have reached unprecedented heights in our history.

I will address the economic aspect now, but first and foremost, it is about mutual trust. Everything we do in relation to each other and how we do it is based on absolute trust to policies of both sides. We engage in nothing that contradicts our interests, and we do much that benefits both the Chinese people and the peoples of the Russian Federation.

I have already mentioned the economy: according to various estimates, it stands at US\$220–230 billion, and according to Chinese statistics, up to \$240 billion in dollar terms. The trade turnover is impressive. Over the past year, despite such a solid foundation, growth continues. It is moderate, with an expected three percent increase, but growth is present. That is the first part.

The second part concerns investment. We have nearly 600 joint investment projects amounting to US\$200 billion. What does this indicate? It suggests that the future is secure.

Lastly, a very significant component, in my opinion, is the humanitarian aspect. We regularly hold cross years: the Year of Culture, the Year of Youth Exchanges, and so forth. This is crucial for the people of both countries. It forms the basis for developing economic ties and political cooperation.

The most critical aspect is regional cooperation. Regional leaders engage with one another: Maotai and vodka, of course, play a part there. But everything is in moderation, as far as I understand. This personal vibe is important, and there are exchanges between students, between higher education institutions, and so on.

Now, regarding the Great Patriotic War.

The Russian Federation and the People's Republic of China are the countries that suffered the most and achieved victory in the Second World War at the cost of the heaviest losses. We used to say 20, then 25, and now some historians estimate 27 million dead. The toll is even higher in China. It is not widely discussed, but in China, it exceeds 30 million.

What the Japanese militarists did on Chinese soil was horrific, a dreadful ordeal. The Chinese people endured that trial. We stood together then, and we stand together now, which is the most important factor, I keep emphasising it, for stability in global affairs.

An instrument of stability, originally created for this purpose, is the United Nations Organisation: Russia and China, as founders of the Organisation and permanent members of the Security Council.

We very often, almost always, coordinate our actions on the international stage, and this is a very significant element of international life. We will continue doing so. I extend my very best wishes to the leader of the People's Republic of China, a man I consider my friend, President Xi Jinping.

Dmitry Peskov: Friends, I kindly remind you to keep your questions brief and to ask one at a time. I see Kuban, please pass the microphone.

Marina Smirnova: Good afternoon. I am Marina Smirnova, representing the Ogni Kubani newspaper, Kavkazsky District, Krasnodar Territory.

My question concerns the current discussions about migration issues and potential solutions. The Krasnodar Territory is large, welcoming, diverse, and strong, but the challenges related to migrants

persist. We have tight restrictions, such as patents that give the right to work only in the construction industry. What is your perspective on such restrictions? There is a labour shortage in various regions. How does Russia plan to address this issue? What is your vision for resolving these challenges?

Vladimir Putin: This is a highly sensitive and pressing issue, not just for us, but even more so for Europe. On the one hand, we face a significant shortage of workers. As I have mentioned before, our unemployment rate is just 2.3 percent, which is effectively negligible. Business leaders and government officials consistently report substantial shortfalls, particularly in the construction and industrial sectors, with the demand reaching into the hundreds of thousands. This is an undeniable fact.

What is the solution? First, to reduce reliance on labour migrants, we need to focus on increasing labour productivity. This involves introducing and utilising technologies that minimise the demand for large numbers of unskilled workers. By shifting the emphasis toward high-tech sectors, we can achieve desired outcomes without the need to bring in significant numbers of migrants for unskilled labour. That is the first step.

Second, if the influx of labour migrants is unavoidable, we must collaborate with partner countries, particularly those in Central Asia, to prepare individuals effectively. This includes expanding a network of Russian-language schools, promoting the study of Russian, and familiarising prospective workers with our traditions, culture, and legal requirements. And of course, we need to tighten requirements to migrants that are already in Russia, ensuring that they respect the communities in which they live and work. This responsibility falls on law enforcement agencies. In essence, the solution requires a balanced approach, integrating both economic and law enforcement measures.

There were extensive discussions about whether we should establish a separate agency (which we once had) or keep it within the Interior Ministry.

I believe that today, we need to strengthen this area of work within the Interior Ministry. We should establish a dedicated and robust division or centre either within the Interior Ministry or under its auspices, which should comprise representatives from economic departments to ensure that all decisions are made holistically, in close coordination with other ministries, departments, and regional authorities.

A significant volume of regulation exists and it should primarily be handled at the regional level. However, all of this should be coordinated from a single centre. As the system matures and gains the necessary competencies, there may be a need for a separate agency in the future. This agency should incorporate both a law enforcement and an economic component.

Certain steps in this direction have already been taken, with the State Duma passing a law that grants the right not to accept migrant children who do not speak Russian into schools. This makes sense since it is impossible to teach a child if they do not understand the language. There needs to be separate instruction in Russian for these children, but who will bear the cost of this additional language training?

We need to ensure that, on the one hand, the people who arrive have equal rights, that they have guaranteed access to healthcare and social security, but on the other hand, this should not be

an additional burden on the local population in the host region. It is essential that everyone is comfortable.

There are many issues involved. And of course, the Government should pay great attention to this. How could this be developed? I just said that initially, this could be done within the Interior Ministry, and later, perhaps, if the situation requires, we will create a separate agency, which will employ both representatives of law enforcement bodies and economic agencies.

Dmitry Kulko: Mr President, we have been specially monitoring migration issues. This is indeed a very sensitive and complex problem.

A significant part of these questions has come from people who come to our country and not always in search of employment. Many of them are Russian-speakers who wish to return to their homeland, obtain a Russian passport, and become full-fledged citizens of the Russian Federation. We have received such requests from a range of countries, including the CIS and Ukraine – as you said today, there are many Russians there.

We have also received such questions from Germany. For example, we were contacted by Leo Seibel, our compatriot, who left for Germany in 1990 and returned in 2006. He currently resides in Tarusa [Kaluga Region], and says that, although he has a residence permit, he has not been able to obtain Russian citizenship for years, with the authorities always giving him the same answer: you are not entitled, there is no such law. A verbatim quote: only Putin can give you citizenship.

Here is a small detail though. After he told the officials that he had written a letter to Putin, their tone changed, and they gave him a list of documents he needed to bring. The process seemed to have got off the ground, but he would like to bring it to its logical end.

Vladimir Putin: Look, Russian citizenship is indeed granted by Presidential executive orders. But this is a purely formal act that must be prepared locally, by relevant agencies, commissions and committees.

The issue you just raised is part of what we call working with compatriots, meaning individuals who feel that they belong to Russia. They speak Russian, they consider themselves part of our culture, part of the Russian world, and as a rule, they are also highly qualified specialists. We are truly interested in attracting such professionals to Russia; we would like them to work and live here. We actually have a state programme for this. Well, apparently, it is not working as effectively as it should. Clearly, we need to improve these mechanisms.

You mentioned Ukrainians. It is quite possible that there are as many Ukrainians already living in Russia as in Ukraine; maybe even more. I am not kidding – this is quite possible, I mean, if we take into account the people living in our new territories, Crimea as well as those who have moved to Russia, there are millions of people. This suggests we have about the same number of Ukrainians living here as in Ukraine now. Speaking of which, they are welcome in Russia, the door is open to them. These people are part of our culture; they are part of our nation.

As I said, these mechanisms certainly need to be improved. We are interested in qualified workforce, including people who simply – well, not “simply,” as this is not a simple thing at all – who uphold our

traditional values. This is difficult to assess. We need to work on this to be able to do this effectively. We will certainly continue doing this.

As for the specific case you mentioned – please send me this person’s details, will you? We will definitely help him.

Dmitry Kulko: Thank you.

Alexandra Suvorova: At the very beginning of the programme we told you that we also used artificial intelligence in our work. GigaChat helped us select most frequent topics in the queries.

Among the top queries, of course, is housing and mortgages. You also said at the beginning of the programme that we are going to revisit this issue more than once. If we look at our monitors now, we will see that this topic is at the top of the list. Actually, the number of queries is also significant.

Let us now bring up a video question from a young family from Krasnodar.

Question: For three months we’ve been trying to take out a family mortgage. The banks are constantly running out of limits, or they increase the down payment from 20 to 50 percent.

Please, tell us how things will be with the family mortgage in general because at present it is very difficult to get it. Also, in addition to the family mortgage, it is next to impossible to get a rural and IT mortgage. That is, banks are constantly running out of limits, plus they do not want to approve it.

Remark: They keep changing mortgage plans every day, when you apply.

Remark: Banks have recently introduced a so-called “combo-mortgage” plan, when they add their interest, and the mortgage rate goes up from six to 13 percent. In other words, banks simply do not want to issue mortgages for families.

Question: What are we to do?

Vladimir Putin: Thank you for this question and for highlighting this problem. This is an outrage, first of all, because there should be no limits, and the Government and I have already discussed this topic. I was promised – and I will check how well this promise is being fulfilled – that there will be no limits.

Because at the end of the day, this is all about subsidies from the state. Banks should enjoy receiving six percent from those who use family mortgage loans, while the difference between the bank rate and this six percent should be reimbursed by the state. And there should be no limits on the part of the state.

This difference ends up in banks, by the way, it is income for them, and not a small one. So if they refuse to approve a family mortgage, it means that the Government does not send this subsidy to the bank in time, probably. I will check, I promise you, I will definitely check. But we have agreed that there will be no limits. This is the first point.

Second, this refers to family mortgages at three percent and to rural mortgages. Family mortgages are issued at six percent, rural mortgages at three percent. This is a very important tool in housing construction. Why? Because of the total volume of housing built – which last year was 110 million square

metres, a record high since the Soviet Union, nothing like this had ever happened before – 50 percent were private houses, mostly in rural areas. Moreover, such mortgages are taken out by people under 40 or a little older, they move to rural areas, live there, take out mortgages, and build families. This mortgage plan should not have any limits either. It amounts to a few tens of billions for the budget, which is absolutely uncritical, and it should be preserved.

The same goes for IT mortgages. How much do we have? Six or five percent. In any case, it is a preferential mortgage, and there are not that many people who take it out. We discussed it just recently, and someone suggested that it should be terminated but there is little sense in doing it so as to save budget funds.

Family mortgages are definitely staying, and rural mortgages are definitely staying. I ask the Government to provide the necessary subsidies. We will put things in order here.

Alexandra Suvorova: This also refers to Far Eastern regions and new regions.

Vladimir Putin: Far Eastern mortgages at two percent are staying, so do the Arctic mortgages – two percent, and the new regions – two percent.

Dmitry Kulko: Mr President, I suggest we now address an issue that, unfortunately, remains pressing year after year – the problem of phone scammers.

We warn people daily about this on television.

Vladimir Putin: By the way, sorry to interrupt, 110 million square metres of housing were built last year. This year, it will be slightly less – around 105 million – but that is still a very good figure.

Dmitry Kulko: Phone scammers. The severity of this problem can be understood from just one number: 250 billion rubles –that is how much scammers stole from Russians this year, according to Sberbank estimates.

These miscreants call and say all sorts of things: they claim to represent the Central Bank or the Federal Security Service (FSB), warn that deposits in all banks will be frozen, and demand that people transfer money to other accounts, or even take out loans. Yelena Markelova from Kazan found herself in such a situation. Let us watch her video appeal now.

Yelena Markelova: Good afternoon, Mr President.

My name is Yelena Markelova. I am a pensioner from Kazan, 63 years old.

Recently, I fell for a scam. My account on Gosuslugi (public services) portal was hacked, and as a result of their actions, I now owe two banks 1.9 million rubles.

My appeal is a cry for help. How is it possible that the banks, where I am a client and receive a pension of 18,770 rubles, approve such loans without requesting any income documents, without asking for any of my contacts who could act as a guarantor for me, and for such large amounts with monthly payments that exceed my monthly income?

Given the large number of pensioners being targeted by scammers, is it not time to take more serious measures and require banks to more thoroughly monitor the actions of their employees and rigorously verify applications, especially from elderly people?

Thank you.

Vladimir Putin: Yes, you are right. What is your name?

Dmitry Kulko: Yelena Markelova.

Vladimir Putin: Ms Markelova, you are absolutely right.

There is not much I can add to what you said. Indeed, banks have become adept at issuing loans quickly – practically instantly – but they must assess the borrower’s solvency. There is even a specific rule stating that if more than 50 percent of a citizen’s income goes toward servicing a loan, issuing such a loan becomes more costly for the bank, and the burden on the bank’s capital increases. This rule comes from the Central Bank. However, what is happening now is deeply concerning, because the scale of this fraud is off the charts.

At a recent Sberbank event, German Gref briefed me on this issue. He explained that across the entire banking system, scammers from the territory of Ukraine alone, where fraudulent activity has essentially been elevated to the level of state policy, where entire centres operating under the control of special services are dedicated to swindling money from Russian citizens, have stolen over 250 billion rubles from our citizens’ accounts.

Of course, these practices have reached a substantial scale. In fact, Nazi Germany acted in a similar fashion by printing banknotes of our World War II allies, including the UK. They printed pound sterling notes and placed them into circulation in order to undermine the British economy.

We are witnessing a similar trend in present-day Ukraine as far as these fraudulent practices are concerned. Of course, we need to make sure that there is discipline in this sector, so this is something that deserves our serious attention.

For example, let them grant loans under 50,000 rubles, and let them do this online and instantly. As for the loans between 50,000 and 200,000 rubles, people definitely need at least several hours to carry out additional checks and take a final decision. As for the loans exceeding 200,000 rubles, this process must definitely take at least several days.

I know that both the State Duma and the Central Bank have been discussing these matters and are committed to further improving the decisions dealing with the capital burden with respect to the banks granting unsecured loans of this kind. I hope that these efforts will enable us to achieve the desired outcomes.

There is another problem, as reported by both the Central Bank Governor and the Interior Ministry. Credit cards are opened for people who are not taking part in this fraud, or so it seems. The scammers get money out of their victims by first transferring it to the so-called intermediary cards, and then take hold of the money from these cards.

Meanwhile, those who open these credit cards pretend that they are not involved in any way. There is a proposal to strengthen controls in this regard and to tighten liability for these people, since they are accomplices in these crimes and are taking part in these scams. They may not be doing anything from a formal point of view, but they know why someone is opening a credit card in their name.

The proposal consists of making this a criminal offence. I am not saying that this decision is approved, but we will definitely have to move in this direction.

Alexandra Suvorova: Do you know anyone who has suffered from phone scams?

Vladimir Putin: I do not know anyone in my entourage who suffered from these practices, but there are certainly those who told me that they got calls from scammers.

Alexandra Suvorova: It seems that these phone calls will keep coming.

Vladimir Putin: Maybe so, but as soon as they hear an unfamiliar voice making any kind of proposals to them dealing with doing anything along these lines, they hang up immediately.

And this would be my advice for all people of Russia.

Dmitry Kulko: Quite often, these unfamiliar voices come from call centres in Ukraine. There were reports that the number of phone calls from scammers declines whenever the Ukrainian energy system suffers a strike. It seems that these call centres simply lose their power supply.

Vladimir Putin: They do not have enough electric power capacity.

Dmitry Kulko: What about adding these call centres to the list of our priority targets?

Vladimir Putin: No. The priority targets include military sites and defence industry manufacturing facilities. The list can also include decision-making centres. As for these call centres, we will not waste our munitions on them. There is no reason for doing so. We must take the necessary measures here in Russia and to work through the relevant institutions, including the Central Bank and the federal Government, as well as the Interior Ministry's departments.

Alexandra Suvorova: Dmitry, Mr Peskov seems to be casting rather unfriendly glances our way.

Dmitry Peskov: Let's shift our focus back to the audience for a moment.

Ukraine has been mentioned. I see the sign "Other Ukraine."

Galina Merkulova: Mr President,

My name is Galina Merkulova, I am a deputy head of media resources for Other Ukraine, an international public movement that represents the interests of millions of Ukrainian citizens both within Ukraine, regrettably still under the control of the Kiev regime, and in Russia, Europe, and across the globe, where we have 55 offices in operation.

The Other Ukraine public movement believes that the sole means of rescuing Ukrainians from Zelensky's criminal illegitimate regime, which has usurped the executive, legislative, and judicial powers, is through the reunification of the Ukrainian and Russian peoples.

Now, here is our question: under what conditions are you prepared to commence negotiations with Kiev? If not with Zelensky, then with whom?

Additionally, one more crucial aspect: in Ukraine, the Russian Orthodox Church is not merely under attack; it is virtually expelled. What is your stance on this matter, and do you believe that the position of the Russian Orthodox Church has been undermined?

Thank you.

Vladimir Putin: Indeed. Firstly, regarding the illegitimacy of the regime, I have previously addressed this issue. I understand that the leader, the mastermind behind this movement, this organisation... Is it the Other Ukraine organisation?

Galina Merkulova: It's a movement.

Vladimir Putin: Yes, it is, apparently, Viktor Medvedchuk, isn't it?

We rarely see each other, but I am aware that he shares this view. So, what constitutes the illegitimacy of the regime? Allow me to reiterate: there is no provision in the Constitution of Ukraine to extend the powers of the President, even under martial law. There is only one representative body of power, the Council, or the Rada, whose powers can be extended without elections under martial law. I repeat, this is the Rada.

What is the challenge for Ukraine? I understand that you are cognisant of this: the state system in Ukraine is structured in such a way that a plethora of government bodies are appointed by the president. This includes regional governors, leadership of all law enforcement agencies, and so forth. However, if the head of state is illegitimate, then everything else loses its legitimacy in terms of executive bodies and law enforcement agencies. And everything they do, following his instructions, makes them aware that they are complicit in this unlawful activity. This is the first point.

Now, regarding the conditions for starting negotiations: We have no preconditions. We are ready to engage in dialogue without any preconditions. However, as I have mentioned numerous times before, based on the agreements that we reached during the negotiation process in Istanbul at the end of 2022 and proceeding from the current realities on the ground.

Our positions were clearly outlined, including in my June speech to the leadership of the Ministry of Foreign Affairs of the Russian Federation. Everything that needs to be said is already there. There is no point in repeating.

If the head of the regime is illegitimate, then with whom? You know, if someone were to go through elections and gain legitimacy, we would talk with anyone, including Zelensky.

If Ukraine truly wants a peaceful settlement, they have the ability to organise this process within their country as they see fit. We can only sign agreements with those who hold legitimate authority, such as the Verkhovna Rada and its Chair, who are fully subordinate to the head of the regime. This is simply a formal legal matter.

They can organise it as they see fit within their country. But if we ever get to the point of signing a document, it can only be done with the representatives of legitimate authorities, that is the bottom line.

Alexandra Suvorova: There was also a question about the Russian Orthodox Church.

Vladimir Putin: You know, what is happening with regard to the Russian Orthodox Church in Ukraine is a unique situation. This is a gross, blatant violation of human rights, the rights of believers. The church is being torn apart right before everyone's eyes. This is like execution by firing squad, and yet the world seems to ignore it.

I think those who engage in such actions will get it back. You mentioned that they are tearing things apart, and that is exactly what is happening. These people are not even atheists. Atheists are individuals who believe in the idea that there is no God, but this is their faith, their convictions and worldview.

But these are not atheists; they are people without any faith at all. They are ethnic Jews, but who has ever seen them in a synagogue? They are not Orthodox Christians either, since they do not attend churches. And they certainly are not followers of Islam, as they are unlikely to be seen in a mosque.

These are individuals without kith or kin. They do not care about anything that is dear to us and the overwhelming majority of the Ukrainian people. Eventually, they will run away someday and go to the beach rather than to church. But that is their choice.

I believe that someday the people in Ukraine, and the majority of Ukrainians are still connected to Orthodoxy, will evaluate their actions accordingly.

Dmitry Peskov: Let us take a couple more questions from the audience. I would be remiss not to give Radio Purga a chance to ask a question.

Anastasia Lavrentyeva: Good afternoon.

Radio Purga, Chukotka Autonomous Area. My name is Anastasia Lavrentyeva. Thank you very much for this opportunity.

I am looking at the monitors showing the relevance of topics for various regions, and I see confirmation that my question is indeed important and concerns many residents of our region. It is about connectivity and internet access.

Mr President, in Chukotka, high-speed internet is available only in the regional capital, the only city. All other residents of the region are deprived of the benefits and opportunities the internet has to offer. Beyond entertainment, essential services like the Gosuslugi portal, banking services for the business are inaccessible to most of Chukotka residents. Could you help address this issue of digital inequality, if possible?

Vladimir Putin: Yes, there is no need for lengthy discussion, because we already have a programme for developing internet connectivity, including high-speed internet, as well as communication infrastructure in general. This involves satellite constellations, particularly those focused on communication systems.

All of this will certainly be implemented. I will not go into the details since they are widely known and publicly available. We are working in this direction, with corresponding resources allocated and plans in place. There will be no disruptions, and we will proceed according to the plan.

I very much hope that residents of remote regions too, including Chukotka, will fully enjoy the benefits of modern civilisation. For a country like ours, this is extremely important, as more and more people work remotely and receive education online. High-speed internet is critical in this regard. We will undoubtedly achieve this. There is no doubt about it.

Dmitry Peskov: Alexander is one of the patriarchs of Russian journalism. Please.

Alexander Gamov: Thank you very much.

Komsomolskaya Pravda website, radio, and newspaper. And “Putin’s team.” I am sitting here today with young ladies, Yulia and Marina, who welcomed me into their group.

This has not been mentioned yet, but I would like to congratulate all of us, and you, Mr President, because, by my estimates, today marks the 20th news conference, even though some colleagues argue that it is the 21st conference. There is no other format like this elsewhere in the world, and I hope it continues for as long as possible.

Now, my question. Contrary to sceptics’ predictions, the presidential programme “The Time of Heroes” has not become a fleeting project or a mere formality. It is working. What hopes did you personally have for it? Have they been realised? What hopes do you have for it now?

In the past few days and hours, a question has increasingly occupied my mind: why do we not adequately care for and protect our heroes? I am speaking not only about the death of General Kirillov, which was briefly mentioned here today, but also about numerous instances where participants in the special military operation have been insulted. Fortunately, law enforcement agencies have been vigilant, and justice has prevailed, as was extensively reported.

As concerns the Time of Heroes programme. I represent the heroic newspaper Komsomolskaya Pravda, which served as a frontline publication during the Great Patriotic War and continues to do so today. Our war correspondents work with courage, and since 2014, we have been publishing KP in Donetsk, Donbass.

Next year, we will be celebrating our 100th anniversary on May 24, 2025. My colleagues have asked me to extend an invitation to you. Mikhail Petrov shared with us how the TASS agency commemorated its 120th anniversary with great ceremony and was honoured with an order. We look forward to welcoming you on May 24 at about noon. Will you attend, Mr President?

Vladimir Putin: I will make every effort to be there.

Alexander Gamov: Thank you.

Vladimir Putin: Thank you very much for the invitation. The Komsomolka newspaper has been an integral part of the lives of many generations of our citizens. People would begin their day with it and continue to rely on it throughout the day. The newspaper is evolving into a modern media platform, operating

across all information environments. It remains a stable, reliable, and objective media outlet. I would like to congratulate you on the success of your work and express my gratitude for the invitation.

Regarding the Time of Heroes platform, I have previously mentioned that the idea occurred to me after meeting in St Petersburg with young participants, mainly students, involved in the special military operation. Observing them, I thought: here they are – the future of our country, the future workforce. This is how the concept for such a platform was conceived. I will not conceal that after returning to Moscow and presenting the idea, I requested my colleagues in the Executive Office to bring it to fruition. They are the ones who came up with the name The Time of Heroes, which I believe is an excellent choice.

The first round attracted 43,000 applications. Naturally, the selection process is quite rigorous: we chose only 83 individuals from these 43,000. And understandably so, as we require individuals with experience in administrative work, those who are educated and meet the criteria necessary for future roles as leaders of major companies, municipalities, entire regions, ministries and agencies, among others.

I stated this at the United Russia party congress, and I would like to reiterate it now: certainly, all are worthy – every one of our men and women fighting for their Motherland, risking their lives and health, is deserving. However, there is the matter of their suitability for the professional path they aspire to pursue. Once again, education and experience are prerequisites.

In general, it is one thing to fight for the Motherland and quite another to work with people. You must possess a certain talent and aptitude for it, you know? These are distinct types of activities. We must select the right individuals from this group who are both willing and able to excel in these areas. Thus far, there have been no missteps: they are truly outstanding individuals.

The second enrolment campaign is currently underway, and the number of applications has already exceeded 15,000. It will continue next year until mid-January or February, I think. This is to say that this effort is gathering pace.

As for the first class, its participants continue their training, even though many of them have already received offers, and quite a few are already working in new positions. Some of them went as far as become heads of regions. This genuinely makes me happy. Some are working in the private sector, while others have taken up jobs in government institutions and administrations at all levels, including regional, local and federal agencies, as well as major corporations.

I would like to reiterate what I said at the United Russia congress. During my recent visit to a rehabilitation centre, I met with young men who had suffered severe wounds. Some had lost a leg, or an arm. But here is what I wanted to tell you: there was fire in their eyes. They want and are ready to work and to make a difference. And they have everything it takes to succeed. Thanks to the latest rehabilitation methods – I am talking about the most advanced and recently developed treatments – they can do anything without any health restrictions or limitations. All we need to do is help them get there.

Let me reiterate that one of these men – I remember his face – told me: “I understand that I need an education and experience, but I do not have either an education or any experience; still, I want to do it.” These are the kind of people we need. We need people who want to work. All we need to do is help them. We must find them and support them.

You know, it just occurred to me that when I applied to join a judo club, our coach, Anatoly Rakhlin, told us: go ahead and do as many pull-ups as you can. For some reason, several of those who did more pull-ups than I did were not accepted. Several years later, we asked him: Mr Rakhlin, how come you refused to accept these young men, but decided to take us on board despite the fact that we could not do as many pull-ups? You know what his answer was? He was a wise man, you know. He said, this is because you put in all the effort you had until your arms were shaking, but you still kept trying to reach the bar with your chin, while those who did more pull-ups than you, they did it without any stress, and they could have done more, but they did not put in all the effort they had and did not give it their all. These men have given all they have, they are willing to go the whole nine yards, and we must help them. They need our support.

Alexander Gamov: There was also a question about protecting our heroes.

Vladimir Putin: This is a very important question, indeed. You are right.

What can I say? First, this has happened before, and we have already seen these attempts and understand what our adversary is after. Unfortunately, this was not a standalone, isolated assassination attempt. In fact, people outside the military have also been targeted. I have already told your American colleague that there have been assassination attempts against journalists and public figures before. Do you remember how Dugina lost her life?

What does it mean? This demonstrates the Kiev regime's terrorist nature. At the same time, of course, it indicates that our competent law enforcement agencies and intelligence services failed to prevent these attacks and allowed these blows to reach their targets. What can I say in this regard? We must further improve their work and prevent these failures, which come at such a huge cost to us. That is all there is to it.

Alexander Gamov: Thank you.

Dmitry Peskov: You know, I have caught sight of a very popular young blogger. He is getting up.

Vlad Bumaga: Mr President, good afternoon.

My name is Vlad Bumaga, and I am a popular video blogger. I have over 80 million subscribers on social networks, mostly young people.

As we know, young people spend a lot of time online – an average of five to eight hours per day, with half of that time devoted to watching video content. For my part, like many other creators, I am actively involved in developing our Russian platforms, such as VK Video. Of course, these platforms are not yet very large, but they demonstrate good and confident growth and provide high-quality services.

My question in this connection is this: why block YouTube if our platforms are coping well as they are? They are competitive and offer excellent terms and alternatives for creators? Moreover, we can upload content there and transmit our ideas and messages to audiences that extend beyond the Russian-speaking community.

There is another important issue. As I mentioned before, practically all children in this country know and watch me. I will add that I became a father myself earlier this year.

Vladimir Putin: My congratulations!

Vlad Bumaga: Thank you.

Vladimir Putin: Please congratulate your wife on my behalf, it is her due.

Vlad Bumaga: I will do so without fail.

I would like to ask what values I, as a person whose videos nurture an entire generation, should communicate to the audience. Or, perhaps, what messages I should not communicate to the audience. What is your personal opinion on the ideas and messages that should be prioritised when it comes to young people? Give us a direction, so to speak. We will take note and start working.

Thank you.

Vladimir Putin: First, regarding the YouTube slowdown. Here, there are more questions for YouTube than for us.

Sorry, let me first ask whether Vlad Bumaga is your pen-name?

Vlad Bumaga: No, it is my real name.

Vladimir Putin: I see, excellent! Paper (bumaga), in a well-known game, is stronger than stone. Therefore, I congratulate you: 80 million subscribers, did you say? This is certainly a unique achievement. This means the content you create meets the expectations of these 80 million people. This is the result of your creative work, and I congratulate you on that.

As for the slowdown, YouTube is owned by Google. When it started operating in Russia, it created its Russian subsidiaries, the legal entities on its payroll, as well as the services it should take care of. It worked with the subsidiaries it had created, but when the West started introducing various restrictions and sanctions, Google stopped or reduced the financing of these subsidiaries and the provision of the necessary equipment, thereby creating problems for itself. This is the first point.

Second, YouTube and Google must comply with our laws and avoid dishonest online activities. In other words, they must not use online resources for promoting their governments' political goals.

Here is what I mean. Suppose you search for some information online, for example regarding culture or music, but instead, you are offered information that has nothing to do with culture or music but promotes a certain political platform. They are also removing the names of our artists, bloggers, politicians and the like from their services.

All this amounts to a violation of Russian laws. As a result, Roskomnadzor and other relevant authorities present their claims, and rightly so. Therefore, the perpetrators face a choice. They can choose to respect our laws, which would expose them to restrictions in their own country, forcing them to limit their operations to their own territory, or they can choose to work in Russia, in which case they must respect our laws.

As for what you have said, nature abhors a vacuum, and competition is growing here with the development of VK, Telegram and Rutube. If Google and YouTube, being aware of that, change the mode of their operations, they will have no problems here.

Regarding the subjects that can be used to enhance the awareness of our young people, how this can be done and what should not be done, I am sure that there is no need for my advice. People like you, especially now that you have become a father, have a growing sense of responsibility. It is a responsibility to your children, their future and the country where your children will live. This feeling of responsibility is a better guide than I could ever be about what would be useful for our children in the future, what is dangerous and unacceptable, and what you should fight against, not on my instructions but at the call of your heart.

Dmitry Peskov: Thank you.

I believe I have overlooked TV-3; they certainly do not deserve this.

Vladimir Putin: May I interrupt you for a second? We were just talking about children, and I see a young woman over there with a “Families with children deceived” sign. How were they deceived?

Anna Suvorova: Apparently, this is not about child benefits, because we have already discussed them.

Vladimir Putin: I could have mentioned them. I think I did.

Yelena Usmanova: I can explain.

Good afternoon, Mr President.

Yelena Usmanova, Business Online newspaper from Tatarstan – this is Tatarstan again.

First of all, I would like to thank you on behalf of Kazan for the honour of hosting the BRICS summit, but my question is about something else, as you can see from the poster.

A group of scammers deceived hundreds of families in Tatarstan who wanted their own homes. Each of them took out a preferential mortgage for individual housing construction under the state support programme, but the houses were never built.

Will the authorities help the defrauded borrowers under that programme, as they once helped the unfortunate co-investors in apartment block projects who were subsequently cheated out of their property? These people continue to pay mortgages for hot air, while the government continues to transfer state support to banks for houses that were never even built. When will they start helping people, not banks?

Thank you.

Vladimir Putin: Please, listen to me. It is not about the banks at all. We have created a system of escrow accounts, where people transfer their money when they take out a mortgage. The money is then frozen in those escrow accounts until the new owners receive their housing. Where have they transferred the money?

Yelena Usmanova: No, this is about the individual housing construction programme. Houses, not apartments.

Vladimir Putin: There is no difference.

Yelena Usmanova: Apparently, that arrangement was not yet in place at the time.

Vladimir Putin: Individual housing construction qualifies for preferential mortgage programmes. As I said, the interest is 3 percent in rural areas. Single-family homes account for 50 percent of the 110 million square metres built in 2023 and 105 million this year. Fifty percent is a breakthrough. But the money should be in escrow accounts. Where have the people transferred this money and why did they do it, if those were not escrow accounts? I really do not understand what you are talking about.

Yelena Usmanova: This is what happened in Tatarstan. Hundreds of families have indeed found themselves in this predicament.

Vladimir Putin: Can you tell me where they transferred the money?

Yelena Usmanova: I am not sure about the details. I know that they took –

Vladimir Putin: Listen, please, what is your name?

Yelena Usmanova: Yelena.

Vladimir Putin: Yelena, these details matter.

Yelena Usmanova: There were definitely no escrow accounts there.

Vladimir Putin: How could this have happened? This may be another fraudulent scheme, like the ones scammers use to steal money from people's accounts.

We will need to look into this, because this particular case may give us leads on other possible cases of this kind and help prevent this kind of fraud.

Right now, I cannot make heads or tails of what you are saying. Please provide us with more information. All right, Yelena? This is extremely important.

Why? Because the main point here is that we still have numerous unfinished housing projects. However, the total amount we now have in the escrow accounts is about 7 trillion rubles, or maybe even a little more. This is more than 65 percent of the amount needed to complete the projects co-financed by the people in 2025. I can almost guarantee that this housing will be built. And no one will be cheated out of their apartments, because part of the work is already done. The money is in these accounts; it is protected. If you are referring to cases where no escrow accounts were used, please provide this information – this needs to be sorted out.

Thank you.

Dmitry Peskov: Yes, we will request this information.

We wanted to give the floor to the TV-3 channel.

Vladimir Putin: I see someone from Turkiye.

Dmitry Peskov: All right, let it be Turkiye then.

Vladimir Putin: Do not worry, we will get back to you.

Ali Cura: My name is Ali Cura, Anadolu news agency.

Mr President, Israel is violating international law, killing tens of thousands of people, including children, in Palestine and Lebanon. Israel is using the current situation to occupy Syria and is infringing on its sovereignty. What can you say about Israel's actions? Have you spoken with President Erdogan about the region as a whole? Thank you.

Vladimir Putin: I maintain regular contact with President Erdogan. I do not remember when we last spoke, but we certainly discussed the situation in the Middle East.

Everyone is aware of President Erdogan and Turkiye's attitude to the developments in the Middle East, as well as our stance on Lebanon and Palestine. It does not depend on fluctuations. We have always believed, and continue to do so, that the Palestinian problem can only be settled if the reasons for its existence are eliminated. There is a well-known UN Security Council decision on the establishment of two states – Israel and Palestine. Israel has been established, but the state of Palestine has not been created to this day. That is the problem.

Moreover, Israel continues to implement its illegal settlement policy. I am not aware of Israel's ultimate goal in the Gaza Strip, but its activities deserve to be censured. We have done this on many occasions and at nearly all levels, from public venues to putting forth our position at the UN Security Council. There is nothing more to add.

The same goes for our stance on Lebanon.

As for Syria, frankly, I believe that Turkiye is doing everything in its power to ensure its security along the southern borders in light of the situation in Syria, to create conditions for the movement of refugees from its territory to other areas, most of which are located in the Turkiye-controlled territories in Syria, and possibly to push the Kurdish forces from the border. All these goals can and possibly will be achieved, to a certain degree. And yet, I believe that the main beneficiary of the developments in Syria is Israel.

You may hold any opinion about Israel's actions, but Russia condemns the seizure of Syrian territories. Our position on this matter is clear and unchanging. At the same time, Israel is addressing its own security concerns. For instance, in the Golan Heights, Israel has advanced along the front by 62–63 kilometres and to a depth of 20–25 kilometres. They have occupied fortifications originally built for Syria by the Soviet Union, strong defensive structures comparable to the Maginot Line.

We remain hopeful that Israel will eventually withdraw from Syria. However, at present, it is deploying additional troops there. It seems there are already several thousand personnel stationed there. It appears not only that they have no intention of leaving, but they may also be planning to further reinforce their presence.

Moreover, the local population has already expressed a desire to be incorporated into the Jewish state, which could create further complications down the line. If the ongoing developments ultimately result

in the fragmentation of Syria, these matters will need to be addressed by the local population in line with the United Nations Charter and the principle of self-determination. It is a complex issue, perhaps best reserved for future discussions.

We are well aware that Turkiye has faced longstanding challenges with the Kurdistan Workers' Party for decades. While we hope for no further escalation, some European politicians recently remarked in meetings that, after World War I, the Kurds were promised their own state but were ultimately deceived.

The Kurdish population in the region is substantial, numbering in the tens of millions across Turkiye, Iran, and Iraq, where they live in concentrated communities. Estimates suggest there are at least 30 to 35 million Kurds. This underscores the gravity of the Kurdish issue. The Kurds are formidable and resilient, known for their fighting spirit. For instance, they withdrew from Manbij, but only after putting up fierce resistance.

The Kurdish issue requires a resolution. This should have been addressed within the framework of Syria under President Assad. Now, it must be resolved with the authorities currently in control of Syrian territory, while Turkiye must also find a way to ensure its security. We understand the complexity of these matters. However, this is a topic for another discussion, so as not to take up time today.

I want to emphasise that while challenges remain, our position firmly aligns with international law and the sovereignty of all nations, including respect for Syria's territorial integrity. This extends to supporting the stance of the current authorities governing the territory of the Syrian Arab Republic.

In this regard, we stand with them. Furthermore, we maintain communication with these authorities as well as with all major groups currently exerting control in Syria.

Dmitry Peskov: We've promised to call on a TV-3 war correspondent.

Vladimir Putin: Yes, I am sorry.

Alexander Malkevich: Alexander Malkevich, Itogovaya Programma, TV-3.

A brief message to begin with: our soldiers asked me to thank you. Last week, you met with members of the Presidential Council for Civil Society and Human Rights and supported their idea of creating a federal museum of the special military operation. Preserving historical memory, particularly in creative formats, is our media Oreshnik in the information war that the West is attempting to wage against us.

The fighters from St Petersburg convey their special thanks for awarding our legendary Leningrad Regiment the honorific Guards title.

Now, my question is about the Defenders of the Fatherland Foundation. Created in April 2023 by your Executive Order, it has operated for one and a half years. How do you assess its performance in 2024 on a five-point or ten-point scale? What main goals have you set for the foundation for next year? What is the chief criterion of its efficiency, as you see it?

Vladimir Putin: As for the work done by the Defenders of the Fatherland Foundation... I think it was created in June, not April, but this is unimportant. It started operating in June.

It was established after I had a meeting with mothers and widows of participants in the special military operation. I realised that the usual methods of support for the soldiers who needed assistance or had been heavily wounded or handicapped, for the families of our fallen heroes, were not sufficient and it was necessary to create a special mechanism, a special tool for those, among others, who were losing their connection with the Armed Forces. The Defenders of the Fatherland Foundation was created precisely for this purpose, to support the men who are leaving military service and yet require a caring attitude from the state; they need attention that is not formal or superficial but implies an individual approach to each person in every family. The foundation was created with this objective in mind.

What is on its agenda? Addressing social issues, processing various allowances and payments on behalf of those who need prosthetic care or have been registered as disabled, and arranging prosthetics for them.

We must give credit to the foundation: they are doing good work. They not only order an item but provide a comprehensive service. This includes training the men and selecting a facility that offers prosthetic care. They also plan for further care, ensuring that it is straightforward and does not require patients to travel across this country for treatment. Ours is a huge country after all. This problem still exists, but they are working to resolve it. This was their task.

I spoke to Anna Tsivileva not so long ago. She says the requests are now amended with... Do you know what? I was quite happy to learn that the men were sending requests for jobs. This is one of the most important areas of their work, by the way. Increasingly more people are sending requests for engagement in sports and participation in cultural events. And this is a positive development. You see, this means a trend towards better options; it exists, it has emerged. And this is very encouraging.

But employment is certainly the most important aspect. I have already mentioned this – they are young men with shining eyes, and they have received excellent training, something many can only dream of. In today's conditions, they could certainly continue their service in the Armed Forces – a relevant decision has been made. What I am saying is that their further careers should not be limited to military enlistment offices, where they are unlikely to earn much, as they offer a rather modest level of income. They can work in IT, or in medicine. They can work anywhere, or they could engage in sports – military sports or civilian sports.

There are various ways to achieve fulfilment, and there is a growing number of opportunities, thanks to modern technologies and with due account of personal preferences. They are working on this, and they are generally doing very well. You know, no big project is implemented without a hitch. In this case, however, we have many people working on this who have some connection with the special military operation: the widows of unfortunately fallen soldiers, the mothers of our fighters who are still there at the frontlines, or just people who care. In this sense, and perhaps because of this – incidentally, many veterans who have returned from the front are working there, too – this is probably the key reason the work is going well.

I was reluctant to let the head of the foundation, Anna Tsivileva, go to work for the Defence Ministry, but I finally consented to Minister Belousov's proposal when he told me that he thought it would be a good idea to build a seamless support system, which would encompass those who continue to serve

in the Armed Forces, with the Defence Ministry, those who are still fighting, but need some support measures, as well as those who are now beyond the scope of the Defence Ministry. I thought we needed someone to do this.

Just recently, last summer, I think, the Defence Ministry created a social centre. So today, this social centre and the Defenders of the Fatherland Foundation are working as a one-stop shop, which helps people who are part of the Defence Ministry system and those who are not. This system seamlessly combines both spheres. They are probably struggling with many problems, but overall, the work is improving.

They have actually participated in decision-making on compensation rules for wounded soldiers. Until now, all wounded soldiers in our country received 3 million rubles regardless of the severity of their case – a small scratch, a minor injury, or a serious injury that led to disability – everyone received 3 million. In fact, servicemen themselves have asked the Ministry of Defence and the Defenders of the Fatherland Foundation to change this system, and we did. Now the fighters who are seriously injured, receive 4 million.

But when this was reported to me, I immediately saw that the fighters who had been seriously injured and received disabilities before that, had been paid 3 million. And now, we have started paying four, meaning they have been left out. So, I had a simple idea: those who had earlier received 3 million, need to be given an additional million retroactively. This means the government has underpaid them. So, now all of them are receiving an additional million each, and the payments are being processed quickly.

This work is also organised by the Defenders of the Fatherland Foundation.

Dmitry Kulko: I suggest we return to the concerns of Russian citizens. You've probably seen them.

Vladimir Putin: Excuse me, Ksenia has been raising her hand for a while. Please, Ksenia.

Ksenia Sobchak: Mr President, Ksenia Sobchak, Ostorozhno Media.

You touched on a very important topic regarding the one-stop shop concept and the capabilities of the Ministry of Defence. I would like to discuss this issue from a different perspective.

Many of us – journalists, celebrities and concerned citizens – are involved in various initiatives. For example, for the past two years, we have been running a large-scale project to help residents of Belgorod and Kursk regions – our fellow citizens affected by attacks from the Armed Forces of Ukraine. This year alone, we have managed to help over 600 families.

I believe there are many other compassionate individuals out there. Would it be possible, in your opinion, to create a one-stop shop for these civic initiatives as well? This could help integrate public and volunteer efforts with social workers and existing state structures. Such a platform could function on a voluntary basis but provide a unified mechanism for coordinating assistance across a wide range of needs.

For example, we often encounter challenges like finding employment in new locations or securing spots in kindergartens and other institutions for families with children that are temporarily relocating. Could such a one-stop shop be established to support these civic initiatives?

Vladimir Putin: First, let me thank you for what you are doing. Providing direct assistance to people is extremely important.

Second, I want to express gratitude to all volunteers. Their work is invaluable, but it also comes with risks. Sadly, there have even been losses among volunteers. Their efforts often reach individuals more directly and sometimes reveal where state mechanisms are effective and where they fall short.

As for your suggestion, we do have programmes in place. For instance, there is a recovery programme for the Kursk Region, with allocated funding that is already practically in place. Similar measures are being implemented in other border regions, including Belgorod and Bryansk regions. No one will be left without support. You probably perceive these needs more acutely, given your involvement.

I will personally consider how this can be organised and will consult with the relevant agencies, including the Ministry of Defence and regional governors, to explore how these efforts can be coordinated – whether through a one-stop shop or some other mechanism. We will definitely think it through. Thank you, Ksenia.

I do not have an immediate answer right now, but the question you have raised is absolutely valid, and we will work on a solution.

Thank you.

Dmitry Kulko: Mr President, I suggest we continue the topic of the special military operation and the support for the military and their families.

You must have seen that among the inquiries we received for this programme, there were also requests for assistance with payments and benefits that are supposed to be allocated for the military and their families. There were also requests for assistance with finding people who are reported missing or with whom there is no contact, or who, according to their families, are being held captive.

Mr President, is it possible to issue an instruction to the Defence Military specifically to deal with these cases? The families are struggling without knowing for certain what has happened. Is it possible to improve the notification system for the families of the military?

Vladimir Putin: It is a very sensitive issue for many.

It is one thing when a person is fighting and, God willing, everything turns out well.

There are different forms of benefits. In general, they are quite decent: there is battle pay, sometimes also called detached-duty allowance, for those who found themselves in certain regions before the start of the special military operation and it was considered a tour of duty. There is also pay for participation in offensive and storming operations, and in organising defence. There is a slight difference, but the grounds for pay are real.

When a person disappears from the radar, the matter of family support arises. We discussed this, and the Defence Minister is aware of this issue. There are at least two things that need to be done.

First of all, it is necessary to expedite final decisions. When information is lacking, families stop receiving corresponding benefits because the person is not there; he is not involved in any offensive or defensive operation; he is not receiving battle pay, and so forth. As a result, the scope of family support diminishes.

Here, the Ministry of Defence and the Government must take a different decision – on what can substitute these payments at least partly. There are different ideas: to develop a form of child benefit, or find another solution. But a decision is necessary on temporary measures, and this matter must be resolved promptly. I will not go into details now. Overall, the Ministry of Defence is aware of this problem and is working on it.

Alexandra Suvorova: Meanwhile, we have been working for more than three hours; almost three hours and ten minutes.

We have many questions, and they are different. I propose a quick round of questions. Dmitry, what do you think? Shall we begin?

Dmitry Kulko: Let's start with a question from Georgy Arefyev from the Smolensk Region: Why do high-ranking officials have to ask for your instructions at the meetings you hold so that they can start doing something?

Vladimir Putin: There is no need to scold officials.

Why is that so? The decision-making process is difficult; and when it reaches me, there are this kind of questions and problems. There are various ways to approach the solution: some of my colleagues believe it should be done one way, and others think differently. When there is a dispute or a fork, as they say in the Government, as they are deciding on an issue, then my colleagues come to me asking to make the final decision, as the commander. They ask for instructions so they won't forget anything; the final decision is turned into instructions, and they get down to work.

There are many bureaucratic subtleties; sometimes everyone agrees on something, but it must be put on paper and implemented as a regulation.

Alexandra Suvorova: The next question is: "Who would you like to have a cup of tea with from among currently living or deceased people?"

Vladimir Putin: Considering the living, I would like to meet with my friends and relatives more often, to have tea and talk with them.

As for the deceased world leaders, I was in touch with German Chancellor [Helmut] Kohl, though not very personally, but for a long time.

He was a person of the global scale, and not just because he was a big man but because of his actions and convictions. He came to visit me right after our first meeting in 1993 and continued to do so for a very long time, not very often but regularly, even after his term ended. I had the pleasure – let me stress this – to talk to him.

It was a big political figure of that time, as they used to say in the Soviet Union. He did a lot for his country and for the Germans. He was a major European and global politician.

I vividly recall many of our conversations. They were very useful for me; I am saying this without exaggeration.

President of France [Jacques] Chirac was a very interesting person, too. Just interesting. You know, he was something of an encyclopedist, or an academic: he knew everything you could ask about. It was curious, honestly. He had an opinion about everything, and he always stood for it. He was a very tactful and courteous person. I learned a lot from him, too, to be honest, just as I learned a lot of things from Kohl and made a mental note of them. I noted this in Chirac too: his behaviour, and his intelligence among other traits.

Berlusconi was slightly different, but also very pleasant to talk to, he was active and very tenacious. Just like Chirac, he did a lot for the development of Russian-Italian relations. Despite what is happening today, we can feel that there is a certain affection for Russia in Italian society, just like we feel affection for Italy.

All of them made a significant contribution to the development of bilateral relations and world politics. Their company was always interesting. They had strong personalities and their own opinions. It was all focused on achieving the maximum result for their countries and strengthening the sovereignty of their states.

I still have many friends in Asia. I have already spoken about friendly relations with...

Alexandra Suvorova: With China, as you said.

Vladimir Putin: With China and India. I have very warm relations with the Prime Minister of India. I have many people I can talk with. However, like any person, I would like to say once again that these are my family and some friends I have had since childhood, and I treasure that a lot.

Alexandra Suvorova: Next question.

Dmitry Kulko: Mr President, I have something between a question and request for advice from Tatyana Prokhorova from Chuvashia: "Do you have bank deposits? If so, in which banks?"

Vladimir Putin: Initially, I had a deposit in Sberbank, I think. Then, when Rossiya Bank was the first financial institution to be sanctioned, I demonstratively transferred my money there. I think, my salary is also transferred there.

Alexandra Suvorova: Next question: "Did Elvira Nabiullina tell you what the Central Bank rate will be tomorrow?" I think this would be interesting not only for Valery Semenov from the Pskov Region, who wrote this question.

Vladimir Putin: No, she does not tell me what the rate will be. Perhaps she does not know this yet, because they discuss it at the board meeting, their "Komsomol cell," and make the final decision in the course of the discussion. I hope that it will be balanced and will meet today's requirements.

Dmitry Kulko: Another question: "Vladimir Zhirinovskiy's predictions about the developments in the Middle East and the South Caucasus are coming true. Will other predictions of the LDPR founder come true?"

Vladimir Putin: Of course, I knew Vladimir Zhirinovskiy well. He was no fortune teller, but he liked provocations and had fun shocking others. However, he was an erudite, and a well-prepared one; he was a specialist on the Middle East. A true expert. Everything he said came true because he relied on his analysis of what was happening in Russia and the world, and forecast the unfolding of the situation. This really comes true.

However, it was a forecast based on real knowledge and the experience he had as an expert.

Alexandra Suvorova: I propose returning to the blitz a bit later, near the end.

Dmitry Peskov: The blitz can go on forever.

Alexandra Suvorova: Yes, sure, with 2,200 questions.

Dmitry Peskov: I cannot quite see what you have written on the paper, but you've been raising your hand for a long time.

Vladimir Putin: There is a man in a mask. You're next, okay?

Svetlana Shevchenko: I can speak, aren't I?

Vladimir Putin: Please, please.

Svetlana Shevchenko: Svetlana Shevchenko, Novosibirsk, Novosibirsk Region.

We are an agroindustrial region and produce high-quality products with added value for export. However, recently we have had an acute shortage of young personnel in the countryside. It has had a real impact: there are not enough personnel despite rural mortgages and the development of rural areas.

Mr President, what would you advise us? What measures should we take to attract new youth and retain those who already live in the countryside?

Vladimir Putin: This is a very important question, because agriculture is a key sector of the Russian economy. I have already said that it is developing at a good pace: three percent per year. We cannot but be pleased with what is happening in agriculture.

I have already given this example, but I will still say this, if I remember it right. In 1986, if I remember correctly, the Soviet Union purchased 35 million tonnes of grain. Last year, we exported 56 million tonnes. We started exporting grain back in 2000, but it was only 1.2 or 1.3 million tonnes; and today it is 66 million tonnes. It seems impossible, but it is happening.

Look, we are among the three largest exporters of food to the world market, and the top one wheat exporter in the world. Last year we had a record harvest of 148 million; this year it will be 130 million, but this is also a very large harvest, and we are stable: we have harvested over 100 million tonnes for 10 years and have a stable large supply for export operations. As I have already said, we have completely covered our need in meat – 100 percent – and we export it.

There are problems with dairy, fruit and vegetable products, but there is also a development programme. Everything is growing gradually.

Social issue in the country is one of the most important problems. There is a programme for the socioeconomic development of the countryside, and overall it has funding. Of course, it may be not enough, but the main thing is to increase the level of well-being and income of people living in the countryside. All other issues will be resolved based on this. I am sure that we will make progress in this area.

Personnel is also a key element. We have traditionally focused on personnel since the Soviet Union era, and now work in the rural areas is becoming more interesting. It is a whole industry now. It requires high-class specialists in various areas: biology and chemistry, in addition to traditional agronomists, and genetics as well.

For example, genetics is an important area, and it is currently developing at the highest pace precisely because of and in the interests of agriculture.

I think all this is very interesting, and we should talk about this not only at events like this once a year, but constantly, as well as create conditions for young people who would be interested in coming and working in this sector of the economy.

The government will do everything possible to attract applicants this industry needs; and manufacturers must do what they do in other industries: create conditions to send people for training intentionally, pick personnel they need during the training, and ensure their work at enterprises and industrial practice. We will certainly provide for all of this.

Dmitry Peskov: Mr President, you promised to take a question from the journalist wearing a mask.

Vladimir Putin: Yes, please.

Andrei Knyazev: I have already taken off the mask. I wear it because I use the metro as probably most of those present here do.

I am Andrei Knyazev, a volunteer with Argumenty Nedeli – Uzbekistan, and head of The World of the Young, a studio of young and adult journalists in Moscow.

Here is my question. This year marks 45 years of my journalistic career which I started in Uzbekistan and have been pursuing here for the past 30 years. I see that paper journalism is dying out. Maybe bloggers like Vlad Bumaga will help independent newspapers which depend only on their readers, not on the government or business people.

What do you think can be done to stop at least weekly press from dying? Because the bloggers we have now are not always intelligent, not always sincere and not always good. This is my short question.

I asked my second question to many officials, including Ms Zakhartova, the Foreign Ministry spokeswoman. She told me to address the President's Direct Line. That's why I am here.

A great number of our scientists and many clairvoyants say that within the coming 10 to 12 years European countries, Japan, the United States and the American continent will be submerged or destroyed. However, the people will survive and they will ask to come to us, Mr President. Meanwhile, they are against us. Should they be informed in advance?

This is hypothetical, of course. Yet, there are such forecasts. I read a lot, and I basically read newspapers, not those lying Telegram channels and others of the kind.

So I have two questions to you. Sorry for that.

Vladimir Putin: I am not sure if I should say it. Ok, I will. You know a popular joke, a banter about a family at table with a little boy doing a crossword puzzle, who says: "Tell me a four-letter word." His mom hits him on the forehead with a spoon – bang! He cries: Why? It's 'home.' Then the father bangs his wife saying: "You should think about your home! Think about your home."

You have said that some continents would be underwater and we should think about what is to be done with those people. We should think about our home!

Andrei Knyazev: Mr President, but they will run to us. What are we going to do with them?

Vladimir Putin: I was listening to you very attentively. You are a person full of energy! Please, let me finish.

I am saying this because the forecasts you have referred to are ethemeral. They are made by serious researchers who say that permafrost is going to start melting. This carries huge problems for the environment because new emissions into the atmosphere will exceed those from all the vehicles in the world. So if permafrost starts melting, the coastal regions of the Russian Federation are also in danger.

We have entire villages and towns with houses built on stilts in the permafrost. They already hear some crepitation underneath there. That's what we should be thinking about, our coastal cities, including even St Petersburg, you see? We did build a flood dam there, which they dreamed of building since the times of Peter the Great. But we should think about what will happen to the coastal cities. We should think about our homeland first.

Andrei Knyazev: And about the paper journalism.

Vladimir Putin: I'll be right with you on that. If people begin relocating to us, we have unemployment at 2.3 percent, it's practically non-existent. We are talking about labour migration and issues related to it.

You are right, think about that. If there is a massive influx of people, we must think about how to cope with it and where and how to accommodate those people. We are the biggest country in the world but do you know how many people live east of the Ural Mountains? About 12 million people. We do have space to resettle people.

In principle, we have to think about social and other infrastructure and rules in advance. It is not really an empty question. You are so egregious when you say all this, but there is actually an issue. I repeat once again: First of all, we need to think about the problems we have in our country.

As for paper journalism and help from Vlad Bumaga, I think that such fellows, of course, will gladly support you, especially since we are talking about paper journalism in this case.

I think that paper journalism will have its place in this huge changing world, just like the paper book. You can flip through a gadget, and everything is in good font there and in different languages. I myself, frankly speaking, sometimes use it. But picking up a book is a different story. Not only because there are

pictures – although that is also interesting to look at – and a book illustration is sometimes a work of art, too.

Picking up an issue of Izvestia or Komsomolskaya Pravda, leafing through it, digging in it – there's a thrill in that, isn't there? I hope that those who are engaged in paper journalism will also take this into account and keep this remaining public interest alive.

The most important thing, of course, is the content, because whatever the media, the most important thing, as Vlad Bumaga said, is what's inside, the content. That's the most important thing. If paper-based media have a worthy and interesting content compared to some internet rubbish, they will be here to stay, they will not die.

Alexandra Suvorova: Mr President, let us think about home, above all, a healthy one. This topic is among those the Russians are most concerned about. If we look at statistics, healthcare and related issues come second – people ask about the shortage of doctors in outpatient clinics, and pretty often about a lack of some medicines.

I suggest we listen to a telephone call from Irina Sychyova from Nizhny Novgorod.

Mr Sychyova, good afternoon. Please, ask your question.

To be continued.

Topics

SAF

Dan Tsubouchi  @Energy_Tidbits · 25m

...

Added Red Sea risk or Houthis trying to take credit?

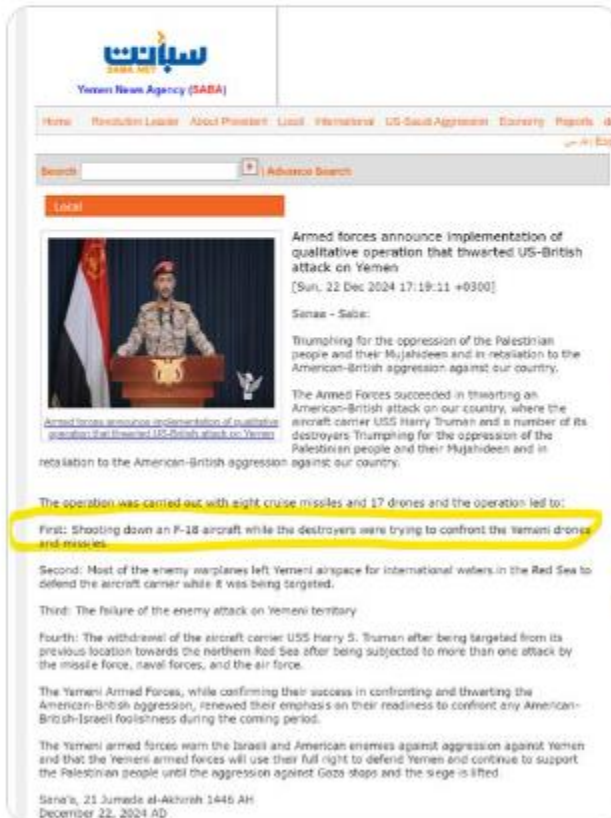
Everyone agrees a US F-18 was hit shot down in Red Sea.

US Centcom says it was friendly fire.

Houthis said it was their attacks.

Hope it's friendly fire or else opens up new risk if Houthis can shoot down F-18s....

[Show more](#)



The screenshot shows a news article from the Yemen News Agency (SABA). The article is titled "Armed forces announce implementation of qualitative operation that thwarted US-British attack on Yemen" and is dated Sunday, December 22, 2024, at 17:19:11 +0300. The article is written from Sana'a, Saba. The main text describes a military operation that thwarted an American-British attack on Yemen, involving the aircraft carrier USS Harry Truman and several destroyers. The operation was carried out with eight cruise missiles and 17 drones. The article lists four points: 1) Shooting down an F-18 aircraft while the destroyers were trying to confront the Yemeni drones and missiles. 2) Most of the enemy warplanes left Yemeni airspace for international waters in the Red Sea to defend the aircraft carrier while it was being targeted. 3) The failure of the enemy attack on Yemeni territory. 4) The withdrawal of the aircraft carrier USS Harry S. Truman after being targeted from its previous location towards the northern Red Sea after being subjected to more than one attack by the missile force, naval forces, and the air force. The article also mentions that the Yemeni Armed Forces, while confirming their success in confronting and thwarting the American-British aggression, renewed their emphasis on their readiness to confront any American-British-Israeli foolishness during the coming period. The article concludes with a warning to the Israeli and American enemies against aggression against Yemen and that the Yemeni armed forces will use their full right to defend Yemen and continue to support the Palestinian people until the aggression against Gaza stops and the siege is lifted. The article is dated Sana'a, 21 Jumada al-Akhirah 1446 AH, December 22, 2024 AD.



2



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473



Dan Tsubouchi @Energy_Tidbits · 4h
Qatar was reminding yesterday that it won't supply LNG to EU if CSDDD comes into effect in 2027.

See 📌 12/08/24 post of Qatar Energy CEO telling this to @dan_murphy

#OOTT #NatGas #LNG

Dan Tsubouchi @Energy_Tidbits · Dec 8

Qatar Energy CEO says won't supply LNG to EU if its Corporate Sustainability Due Diligence Directive comes into effect in 2027.

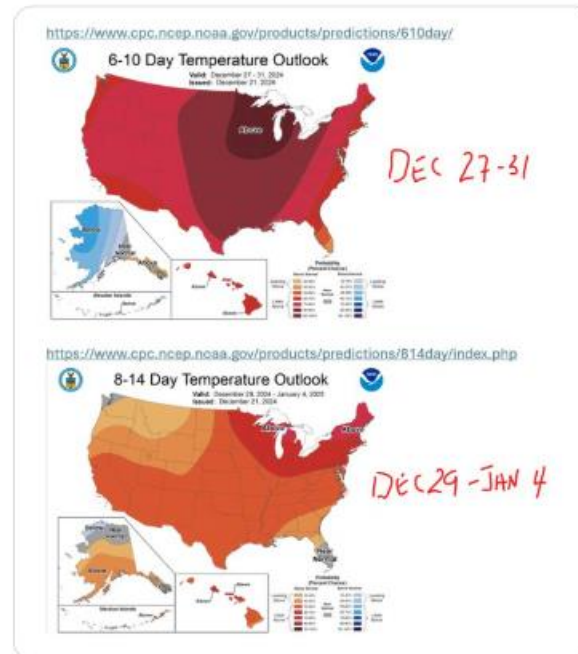
At 3:30 min. "What will make you I think be shocked is the penalty can be up to 5% of your total generated revenue worldwide. So the EU ca...
[Show more](#)

1 5 6 2.6K

Dan Tsubouchi @Energy_Tidbits · 5h
Just came off a great week for HH +\$0.47 to \$3.75 driven by Putin/Zelensky confirming no more RUS #NatGas via pipeline to EU on Jan 1.

Even in face of continued @NOAA forecasts for warmer than normal temps for end of Dec/start to Jan.

#OOTT



3 3 9 1.8K



Dan Tsubouchi @Energy_Tidbits · 23h
Vortexa crude #Oil floating storage.



70.10 mmb on Dec 20, +2.92 mmb WoW vs revised up by +1.65 mmb Dec 13 of 67.18 mmb

4 of last 5 wks are >70 mmb after not being >70 mmb since Aug 16. 🌟
Driven by Asia with build of Iran oil as China reportedly avoiding unsanctioned tankers.

[Show more](#)



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Dan Tsubouchi @Energy_Tidbits · Dec 21

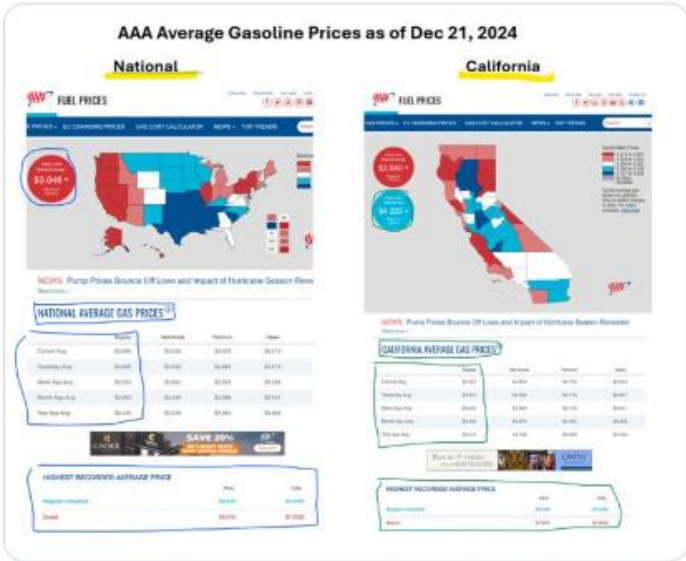


AAA National average gasoline prices +\$0.03 WoW at \$3.05 on Dec 21, -\$0.01 MoM & -\$0.07 YoY.

California average prices -\$0.01 WoW to \$4.32, -\$0.13 MoM & -\$0.26 YoY

National average gasoline price hasn't been below \$3 since May 11, 2021.

Thx @AAAnews
#OOTT



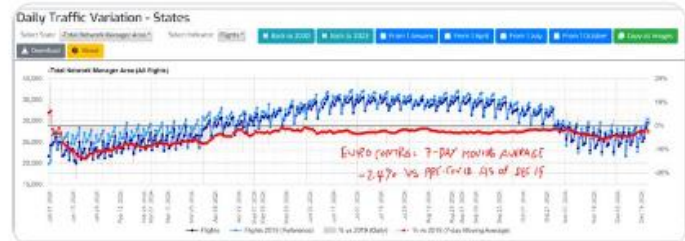
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SAF Dan Tsubouchi @Energy_Tidbits · Dec 21
Daily Europe air traffic still stuck below pre-Covid.

7-day moving average as of:

- Dec 19: -2.4% below pre-Covid
- Dec 12: -3.6%
- Dec 5: -4.0%
- Nov 28: -4.3%
- Nov 21: -5.5%
- Nov 14: -3.8% ...

[Show more](#)



1 2 3 1.1K

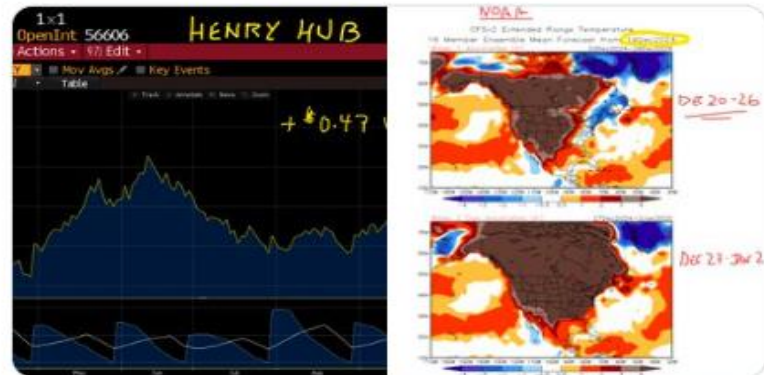
SAF Dan Tsubouchi @Energy_Tidbits · Dec 20
Great week for HH #NatGas +\$0.47 WoW to \$3.75.

Despite continued @NOAA temperature forecasts for much warmer than normal temps in the coming days.

post, Putin says not his problem that RUS pipeline NatGas stops flowing via UKR to Europe on Jan 1.

NatGas LNG, incl HH, up with

[Show more](#)



SAF Dan Tsubouchi @Energy_Tidbits · Dec 20

Putin/Zelensky driving up #NatGas #LNG prices incl HH.
Putin says not his problem that RUS pipeline NatGas stops flowing via UKR on Jan 1. @a_shiryaevskaya...

6 3K

SAF Dan Tsubouchi [@Energy_Tidbits](#) · Dec 20 ...
Big continuing win for Cdn #Oil in Q4/24 cash flows.

Increasing tanker exports post June start 590,000 b/d TMX kept WCS less WTI differentials from normal Sept/Oct/Nov widening.

WCS less WTI diffs:

12/20/24: \$13.25

12/20/23: \$20.45

12/20/22: \$27.00

Thx [@garquake](#) [@business](#) #OOTT



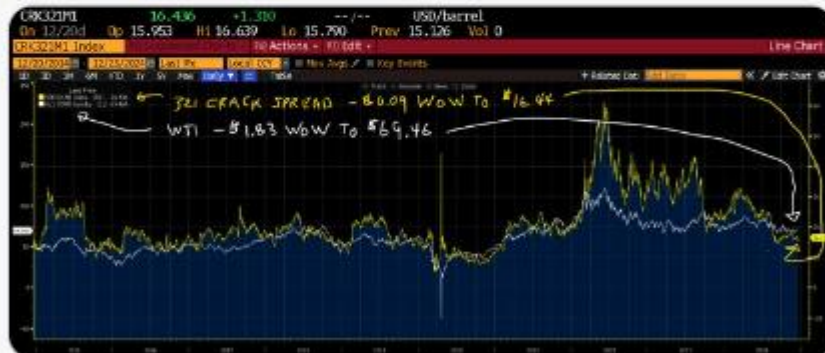
1 5 19 2.3K

SAF Dan Tsubouchi [@Energy_Tidbits](#) · Dec 20 ...
321 crack spreads +\$0.09 WoW to \$16.44 on Dec 20.

WTI -\$1.83 WoW to \$69.46.

Reinforces WTI is impacted more by global markets than by cracks ie. changing market views post Fed changing view for slower rate reductions.

Thx [@business](#)
#OOTT



2 7 1.2K

SAF

Dan Tsubouchi  @Energy_Tidbits · Dec 20



Looks like a federal Canada election in the spring.

[@theJagmeetSingh](#) seems to finally remove any vagueness and moves to a clear position to bring down the govt and "put forward a clear motion of non-confidence" "no matter who is leading the Liberal party"

#OOTT



2



9

1.1K



SAF

Dan Tsubouchi @Energy_Tidbits · Dec 20

...

EU has been increasing #Oil imports from US ever since Russia invaded Ukraine on Feb 24/2022.

Thx @SStapczynski

#OOTT

BN 12/20 06:47 Trump Threatens Tariffs If EU Doesn't Buy More US Oil, Gas (1)

Trump Threatens EU With Tariffs If It Doesn't Buy US Oil and Gas
2024-12-20 09:56:31.118 GMT
By Stephen Stapczynski (Bloomberg)

Source: Ship tracking data compiled by Bloomberg

To contact the reporter on this story:
Stephen Stapczynski in Singapore at sstapczynski1@bloomberg.net

SAF Dan Tsubouchi @Energy_Tidbits · Dec 20



Trump's Truth Social post.
"I told the European Union that they must make up their tremendous deficit with the United States by the large scale purchase of our oil and gas. Otherwise, it is TARIFFS all the way!!!"...



2

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SAF

Dan Tsubouchi @Energy_Tidbits · Dec 20

...

Putin/Zelensky driving up #NatGas #LNG prices incl HH.

Putin says not his problem that RUS pipeline NatGas stops flowing via UKR on Jan 1. @a_shiryaevskaya

EU need to get more US LNG ASAP has been great this week for HH prices.

EU needs a warm Jan.

#OOTT

BN 12/19 14:32 Putin, Zelenskiy Rule Out Renewal of Key Gas Deal for Europe
 Putin, Zelenskiy Rule Out Renewal of Key Gas Deal for Europe (3)
 2024-12-19 22:04:41,117 GMT

By Anna Shiryaevskaya
 (Bloomberg) -- European gas futures jumped the most in more than a month after the leaders of Ukraine and Russia both ruled out the renewal of a key transit deal for the region. President Volodymyr Zelenskiy indicated Ukraine won't transit Russian-origin gas unless he has assurances the Kremlin won't benefit financially while the war continues. President Vladimir Putin said Kyiv has refused to extend the five-year deal beyond its expiry at year's end.

PUTIN →

"There will be no such contract, it's clear now," Putin said during his annual press conference in Moscow. "There is a question of what to do with it now — but that's not our problem" and Russian gas giant Gazprom PJSC "will survive."

The comments came as European Union leaders met Zelenskiy in Brussels, with gas among several topics discussed. Nations led by key gas buyer Slovakia have in recent days stepped up efforts to keep fuel flowing from the east, but Kyiv's stance adds even more complexity to negotiations as the clock ticks down.

With less than two weeks left until the new year, there are challenges for consumers such as Slovakia trying to put together a deal that would work for Ukraine, which has repeatedly refused to continue moving Russian gas and boost Kremlin revenues. Slovak Prime Minister Robert Fico said he was taken aback by Zelenskiy's refusal to allow transit after the two leaders had a discussion at the summit in Brussels.

"I was surprised by the bluntness of his response, where he essentially ruled out any possibility of Ukraine transiting

SAF Dan Tsubouchi @Energy_Tidbits · Dec 20



Trump's Truth Social post.
 "I told the European Union that they must make up their tremendous deficit with the United States by the large scale purchase of our oil and gas. Otherwise, it is TARIFFS all the way!!!" ...

1 6 8 6.9K

SAF

Dan Tsubouchi  @Energy_Tidbits · Dec 20



Trump's Truth Social post.

"I told the European Union that they must make up their tremendous deficit with the United States by the large scale purchase of our oil and gas. Otherwise, it is TARIFFS all the way!!!"

#OOTT #LNG #Oil



← **Donald J. Trump** 

Donald J. Trump
@realDonaldTrump
8.38M Followers 71 Following
Joined February 2022 www.DonaldJTrump.com

Truths Replies Media

Donald J. Trump 
@realDonaldTrump · 4h

Congress must get rid of, or extend out to, perhaps, 2029, the ridiculous Debt Ceiling. Without this, we should never make a deal. Remember, the pressure is on whoever is President.

072 1.44k 5.46k

Donald J. Trump 
@realDonaldTrump · 4h

I told the European Union that they must make up their tremendous deficit with the United States by the large scale purchase of our oil and gas. Otherwise, it is TARIFFS all the way!!!

437 1.58k 6.45k

3

2

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6.2K



SAF

Dan Tsubouchi @Energy_Tidbits · Dec 19

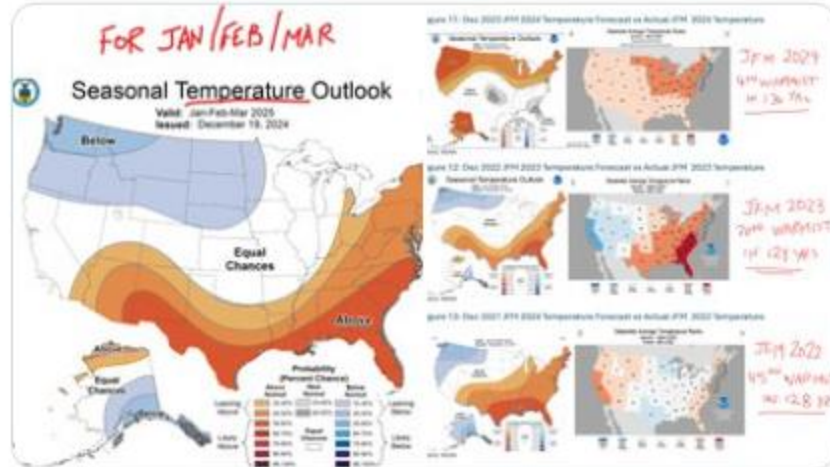
...

NOAA updated temp forecast for Jan/Feb/Mar calls for warmer than normal temps.

Actual JFM for 2024 turned out warmer than NOAA's Dec 2023 seasonal outlook and the 4th warmest in 129 yrs.

NOAA had similar temp forecast in Dec 2022 for JFM 2023, which turned out warmer at the

[Show more](#)



1

2

6

1.3K

Share

SAF

Dan Tsubouchi @Energy_Tidbits · Dec 19

US refiners imported 4.339 million b/d of Cdn medium in Dec 13 week.

~70% to captive Midwest refinery buyers set up to process Cdn medium via Enbridge pipeline and couldn't logistically get ~3 mmb/d of medium oil in any other way.

Hard for Trump to tariff Cdn oil without

Show more



1 1 5 1.4K

SAF

Dan Tsubouchi @Energy_Tidbits · Dec 19

"the green transition is under great pressure" says @BetterEnergy (~half of Denmark onshore wind) as it goes into restructuring.

Also "The main challenge is no longer the production of more renewable energy, but increasingly weak demand" "reduced investor appetite", and much

Show more

The screenshot shows an article titled 'DENMARK ONSHORE WIND'. The article discusses the challenges facing the Danish onshore wind industry. Key sections highlighted in yellow include:

- Denmark's onshore wind industry is under great pressure**: The industry is facing a perfect storm of negative market conditions, including reduced investor appetite and weak demand.
- Denmark's onshore wind industry is facing a perfect storm of negative market conditions**: This includes reduced investor appetite and weak demand.
- Denmark's onshore wind industry is facing a perfect storm of negative market conditions**: This includes reduced investor appetite and weak demand.

 The article also mentions that the industry is facing a 'perfect storm' of negative market conditions, including reduced investor appetite and weak demand. It notes that the industry is facing a 'perfect storm' of negative market conditions, including reduced investor appetite and weak demand. The article also mentions that the industry is facing a 'perfect storm' of negative market conditions, including reduced investor appetite and weak demand.

7 7 2K

Dan Tsubouchi @Energy_Tidbits · Dec 19

Yes, China is the bright spot for New Energy Vehicles.

Remember BYD's NEVs are split ~60% PHEV/40% BEV. See 12/01/24 post on BYD Nov sales.

And PHEVs and HEVs are really just more fuel efficient ICE. See 09/04/24 post.

#OOTT

Dan Tsubouchi @Energy_Tidbits · Dec 1

Breaking!

PHEVs keep dominating BEVs in China.

Don't forget NEVs = BEVs + PHEVs...

[Show more](#)

EV Sales - Nov 2024

Nov-24	% Share	Nov-23	% Share
198,065	39.1%	170,150	56.4%
305,939	60.4%	131,229	49.6%
449	0.1%	391	0.1%
2,352	0.5%	134	0.0%
506,804	100.0%	301,903	100.0%

YTD Nov 24	% Share	YTD Nov-23	% Share
557,258	41.4%	1,384,068	51.6%
183,672	58.1%	1,268,660	48.1%
4,205	0.1%	3,900	0.1%
12,201	0.3%	6,746	0.3%
757,336	100.0%	2,683,374	100.0%

EV Sales Volumes for November 2024, posted Dec 1, 2024

BYD COMPANY LIMITED
 A COMPANY LISTED ON THE SHANGHAI STOCK EXCHANGE
 (Stock Code: 1211) (HKG Stock Code: 1211) (SEHK Stock Code: 1211)
 (Incorporated in the People's Republic of China)

VOLUNTARY ANNOUNCEMENT
PRODUCTION AND SALES VOLUME FOR NOVEMBER 2024

The announcement is made voluntarily to all investors and the public by the Company for the month of November 2024.

The Board of the Company is pleased to announce that the production and sales volume of the Company for the month of November 2024 is as follows:

Type	Production Volume				Sales Volume			
	November 2024	November 2023	Percentage Change	Percentage of Total	November 2024	November 2023	Percentage Change	Percentage of Total
Passenger vehicle	198,065	170,150	11.1%	39.1%	305,939	131,229	133.3%	60.4%
Commercial vehicle	449	391	14.8%	0.1%	2,352	134	17.6%	0.3%
Other	2,352	134	17.6%	0.5%	12,201	6,746	80.2%	0.3%
Total	200,866	170,675	11.7%	100.0%	320,491	138,109	130.7%	100.0%

Note: The above sales volume of this Group's Passenger Vehicle refers to "EV" sales of the Company for the month of November 2024, of which 198,065 units were reported. The overall volume of EV sales (passenger vehicles and commercial vehicles) of the Company for the month of November 2024 was approximately 200,866 units. The remainder is mainly reported for the use of EVs was approximately 170,675 units.

Please note that the production and sales volume above are recorded figures and have not been certified by the Company's auditors and are for reference only and should not constitute a recommendation and should not be construed as an indication of the financial results of the Company or its value.

By order of the Board
 BYD Company Limited



Dan Tsubouchi @Energy_Tidbits · Dec 19

EU BEV sales continue down YoY in Nov, HEV up big YoY.

Reminder: HEV/PHEVs are really just more fuel efficient ICE. See 09/04/24 post.

BEVs: Nov -9.5% YoY, YTD -5.4% YoY to 13.4% share vs 14.2%.

PHEV Nov -8.8% YoY, YTD -8.0% YoY to 7.0% share vs 7.7%.

HEV is big winner.

Show more

EU NOV NEW CAR REGISTRATIONS

EU Oct 2024 New Car Registrations by Power Source

	Volume			Share		YTD		% Change	Share	
	Nov-24	Nov-23	% Change	Nov-24	Nov-23	Nov 24	Nov 23		Nov 24	Nov 23
BEV	130,757	144,482	-9.5%	15.0%	16.3%	1,303,888	1,377,488	-5.4%	13.4%	14.2%
PHEV	65,826	72,176	-8.8%	7.6%	8.1%	683,244	742,706	-8.0%	7.0%	7.7%
HEV	268,776	243,706	10.9%	33.2%	27.5%	2,981,518	2,481,004	19.7%	30.7%	23.7%
Others	26,162	29,090	-10.1%	3.0%	3.3%	299,415	296,053	1.1%	3.1%	3.1%
Petrol	286,115	288,397	-0.8%	30.8%	32.3%	3,277,838	3,447,845	-4.9%	33.7%	35.0%
Diesel	92,180	108,867	-15.3%	10.6%	12.3%	1,160,348	1,328,947	-11.2%	12.1%	13.7%
Total	868,816	866,818	-1.8%	100.0%	100.0%	8,726,048	8,683,853	0.4%	100.0%	100.0%

Others include other power sources, including hybrids, LPG, other vehicles, and other fuels.
Source: ACEA
Prepared by SAF Group (https://safgroup.co.uk/news/energy-445174)

SAF Dan Tsubouchi @Energy_Tidbits · Sep 4



HEV/PHEV 101 - They are really just more fuel efficient ICE.

Ford: HEV F150 does 23 mpg vs ICE150 at 19 mpg.

1 2 4 3.1K



Dan Tsubouchi @Energy_Tidbits · Dec 19
UK Nov BEV sales are deceiving.



UK BEV Nov sales: A big month, +58.4% YoY to bring YTD +17.9% YoY.
[@ACEA_auto](#)

Big BEV discounting because BEVs at 17.9% is still well short of UK regulated BEVs to be 22% of 2024 total car sales

PLUS, See 10/16/24 tweet: [@vertumotorsCEO](#), some [Show more](#)

UK NOV NEW CAR REGISTRATIONS

UK Nov New Car Registrations by Power Source

	Volume			Share		YTD			Share	
	Nov-24	Nov-23	% Change	Nov-24	Nov-23	Nov-24	Nov-23	% Change	Nov-24	Nov-23
BEV	38,581	24,358	58.4%	23.1%	15.6%	338,314	266,866	17.9%	18.7%	16.3%
PHEV	15,687	15,671	-1.2%	10.2%	10.1%	154,482	129,149	19.6%	8.5%	7.3%
HEV	83,495	89,757	-7.5%	34.8%	31.8%	643,681	559,233	15.1%	35.5%	31.7%
Others	0	0	n/a	0.0%	0.0%	0	0	n/a	0.0%	0.0%
Petrol	41,925	61,875	-32.2%	27.3%	39.5%	624,033	720,124	-13.3%	34.4%	40.9%
Diesel	3,922	4,883	-15.9%	2.8%	3.0%	51,502	66,010	-22.7%	2.8%	3.8%
Total	183,610	196,525	-1.9%	100.0%	100.0%	1,811,992	1,761,962	2.8%	100.0%	100.0%

Source: ACEA
Data is for full UK fleet in vehicles, national government LPS, MS (motorcycles) and other facts
Prepared by SAF Group <https://safgroup.co.uk/news/energy-tidbits/>



Dan Tsubouchi @Energy_Tidbits · Sep 4



HEV/PHEV 101 - They are really just more fuel efficient ICE.

Ford: HEV F150 does 23 mpg vs ICE150 at 19 mpg.

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Dan Tsubouchi @Energy_Tidbits · Dec 19

Germany Nov BEVs losing share to PHEV, HEV, Petrol & Diesel.

Reminder: HEV/PHEVs are really just more fuel efficient ICE. See 09/04/24 post.

BEV Nov -21.8% YoY, YTD -26.1% YoY to 13.4% share vs 18.0%.

PHEV Nov +13.7% YoY, YTD +9.5% YoY to 6.7% share vs 6.1%.

HEV Nov
[Show more](#)

GERMANY NOV NEW CAR REGISTRATIONS

Germany Nov New Car Registrations by Power Source

	Volumes			Share		YTD			Share	
	Nov-24	Nov-23	% Change	Nov-24	Nov-23	YTD Nov 24	YTD Nov 23	% Change	YTD Nov 24	YTD Nov 23
BEV	35,167	44,942	-21.8%	14.4%	18.3%	347,048	469,960	-26.1%	13.4%	18.0%
PHEV	20,604	18,126	13.7%	8.4%	7.6%	172,800	157,830	9.5%	6.7%	6.1%
HEV	73,850	60,483	22.3%	30.2%	24.6%	684,923	608,883	12.5%	26.4%	23.4%
Others	961	968	-0.7%	0.4%	0.4%	12,992	13,484	-3.6%	0.5%	0.5%
Petrol	77,352	81,734	-5.4%	31.6%	33.3%	922,615	903,766	2.1%	35.6%	34.7%
Diesel	36,510	38,470	-7.5%	14.9%	16.1%	452,230	449,178	0.7%	17.4%	17.3%
Total	244,544	245,701	-0.5%	100.0%	100.0%	2,592,610	2,602,716	-0.4%	100.0%	100.0%

Source: ADAC
Prepared by SAF Group <https://safgroup.co.uk/en/energy-tidbits/>

SAF Dan Tsubouchi @Energy_Tidbits · Sep 4



HEV/PHEV 101 - They are really just more fuel efficient ICE.

Ford: HEV F150 does 23 mpg vs ICE150 at 19 mpg.

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Dan Tsubouchi @Energy_Tidbits · Dec 18

Only #NatGas can come to the rescue for massive NA electricity growth to 2034.

@NERC_Official LTRA.

- huge YoY growth in forecast electricity demand.
- need is for "dispatchable generators with assured fuel supplies, such as #NatGas, to be reliable all the time"
- resource mix

Show more



NERC @NERC_Official · Dec 17



Trends identified in NERC's 2024 LTRA highlight critical #reliability challenges facing industry over the next 10 years: satisfying escalating #energy growth, managing generator retirements and removing barriers to resource and transmission development. ...

10 27 6.6K

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Dan Tsubouchi @Energy_Tidbits · Dec 18

For those who aren't near their laptops, at 8:30 am MT, @EIAgov released #Oil #Gasoline #Distillates inventory as of Dec 13. Table below compares EIA data vs @business analyst survey expectations and vs @APIenergy estimates yesterday. Prior to release, WTI was \$70.95. #OOTT

Oil/Products Inventory Dec 13: EIA, Bloomberg Survey Expectations, API

(million barrels)	EIA	Expectations	API
Oil	-0.93	-1.70	-4.70
Gasoline	2.35	2.00	2.40
Distillates	-3.18	1.10	0.74
	-1.76	1.40	-1.56

Note: Oil is commercial. So excludes a +0.5 mmb build in SPR for the Dec 13 week

Note: Included in the oil data, Cushing had a 0.11 mmb build for Dec 13 week

Source EIA, Bloomberg

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

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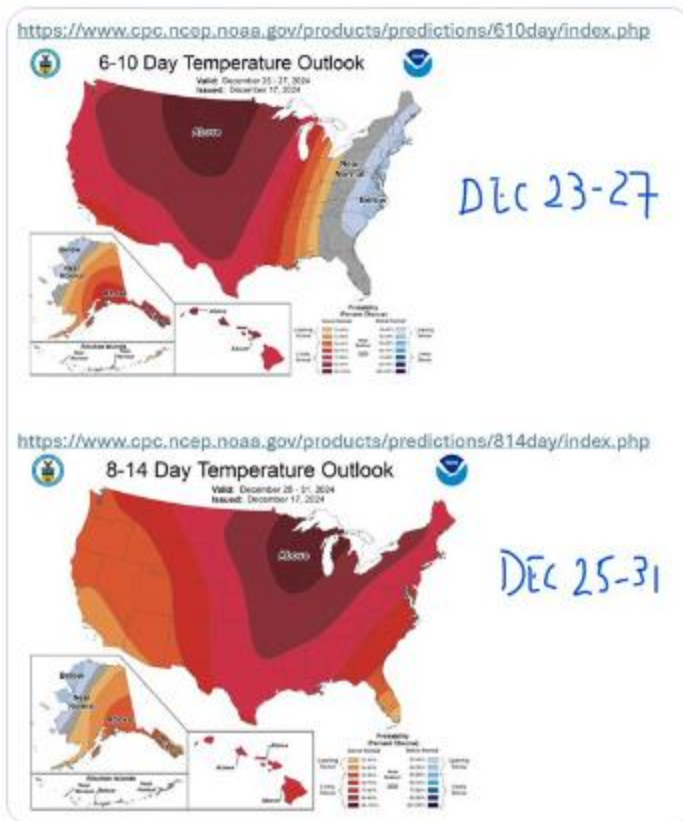
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Dan Tsubouchi @Energy_Tidbits · Dec 18

...

HH #NatGas prices staying relatively unchanged ~\$3.30 despite the continuing @NOAA forecasts for Lower 48 to turn warmer than normal thru year end.

#OOTT



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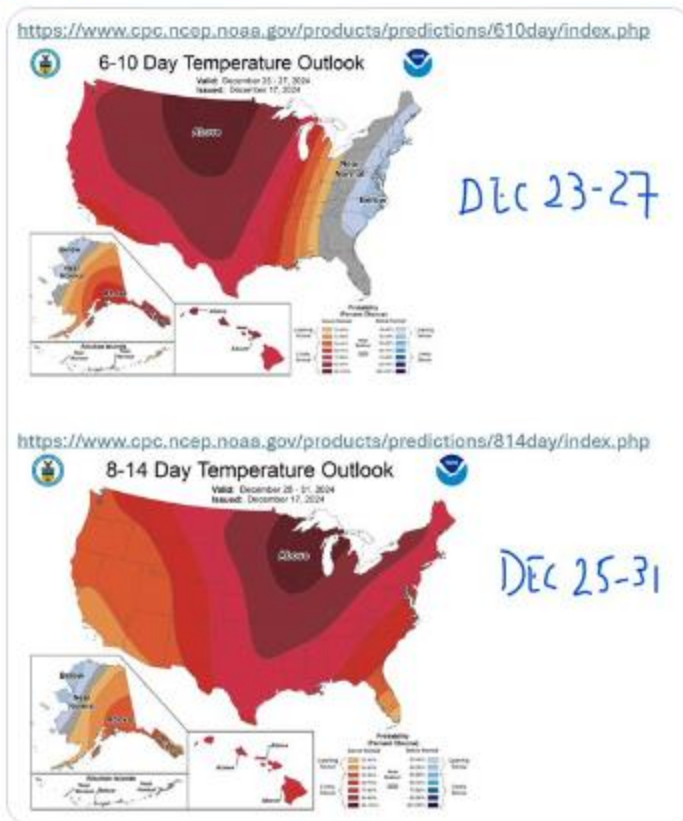
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Dan Tsubouchi @Energy_Tidbits · Dec 18

...

HH #NatGas prices staying relatively unchanged ~\$3.30 despite the continuing @NOAA forecasts for Lower 48 to turn warmer than normal thru year end.

#OOTT



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SAF Dan Tsubouchi @Energy_Tidbits · Dec 17
 Here's why UK adding intermittent wind/solar "capacity" is to the most part additive if still want to provide 24/7 power.

UK gov't data: total UK electricity consumption has declined every year other than post Covid recovery.

YET post. UK Clean Power 2030 says need to double
 Show more



SAF Dan Tsubouchi @Energy_Tidbits · Dec 17

Very expensive UK power prices ahead!

Someone has to pay for UK Clean Power 2030 need to DOUBLE total power capacity by 2030 incl offshore wind +215%, onshore wind +97%, solar +177%, ...

3 3 2.9K

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Dan Tsubouchi @Energy_Tidbits · Dec 17

...

IMAGINE IF Trump/Navarro are right on Drill Baby Drill impact?

Navarro sees Drill Baby Drill is #1 factor to break the back of Inflation, and that will bring oil down from \$75-80 under Biden-land "back down towards \$50 where we were with Trump."

Equity & debt capital would

[Show more](#)

"And it's going to happen, first and foremost, with Drill Baby Drill They're going to get that right. Joe, just going from an average of \$75-\$80/b oil, which we've been suffering thru in Biden-land back down towards \$50 where we were with Trump." Peter Navarro.



SAF Group created transcript of comments by Peter Navarro (incoming White House Senior Trade Counselor) with CNBC's Joe Kernen on CNBC Squawk Box on Dec 17, 2024.

<https://www.cnbc.com/video/2024/12/17/peter-navarro-youll-see-over-1-trillion-of-investments-from-trumps-tariff-trade-policies.html>

Items in "italics" are SAF Group created transcript.

At 3:02 min mark, Navarro "... for me Joe, this all adds up to, *first of all, is we're going to be able to break the back of the persistent inflation we've been experiencing. And it's going to happen, first and foremost, with Drill Baby Drill. The team we have at energy and interior is Burgum and Wight. They're going to get that right. Joe, just going from an average of 75 to 80 dollar a barrel of oil, which we've been suffering through in Biden-land back down towards 50 where we were with Trump. That diffuses thru the economy in a beautiful way: We're going to deal that way with the cost/push inflation. All of these government efficiency reforms that the Batman and Robin, Elon and Vivek are going to do. That's going to help break the back of inflation. And then on the demand/pull side, what we have is, first of all is those green mandates, that EV mandates, that is gone. That is gone like the wind. That's going to help mute prices, the price level.*"

Prepared by SAF Group <https://saf-group.com/signature-energy-tidbits/>

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Dan Tsubouchi @Energy_Tidbits · Dec 17

Very expensive UK power prices ahead!

Someone has to pay for UK Clean Power 2030 need to DOUBLE total power capacity by 2030 incl offshore wind +215%, onshore wind +97%, solar +177%, batteries +456%...

UK may call it "variable" but it's "intermittent" and is to the most part [Show more](#)

UK
Clean Power 2030 Action Plan

Table 1: Installed capacity in 2020 in the NEMO 'Further Flex and Renewables' and 'New Dispatch' scenarios, and the DESNZ 'Clean Power Capacity Range', compared to current installed capacity (GW)

Technology	Current installed capacity ²⁰²⁰	NEMO 'Further Flex and Renewables' Scenario	NEMO 'New Dispatch' Scenario	DNZND 'Clean Power Capacity Range'
Variable				
Offshore wind	14.0	31	43	43-55
Onshore wind	16.2	27	27	27-28
Solar	16.0	47	47	45-47
Flex				
Nuclear	5.0	4	4	2-4
Dispatchable				
Low Carbon Dispatchable Power ²⁰²⁰	4.3	4	7	2 ¹ -7
Unabated gas	35.6	35	35	35 ²
Flexible				
LiES	2.9	8	8	4-6
Batteries	4.5	27	23	23-27
Hydroelectric	8.8	12	12	12-14
Consumer-led flexibility ²⁰²⁰	2.5	12	10	10-12
TOTAL	111		217.5	

TABLE SET ADD CAPACITY TO 2030

Category	Value	%
Offshore wind	+ 31.9	+ 215%
Onshore wind	+ 13.8	+ 97%
Solar	+ 28.4	+ 177%
Nuclear	- 2.4	- 4%
Low Carbon Dispatchable Power	+ 0.2	+ 5%
Unabated gas	- 0.6	- 2%
LiES	+ 2.1	+ 7%
Batteries	+ 20.5	+ 456%
Hydroelectric	+ 3.2	+ 37%
Consumer-led flexibility	+ 8.5	+ 34%
TOTAL	+ 104.6	+ 96%



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Dan Tsubouchi  @Energy_Tidbits · Dec 17

...

Continued negative indicator for China recovery.

8th consecutive month of negative net monthly foreign direct investment flows despite Sept stimulus.

And this is Before Trump.

US \$ B

Oct: -3.50

Sept: -2.53...

[Show more](#)



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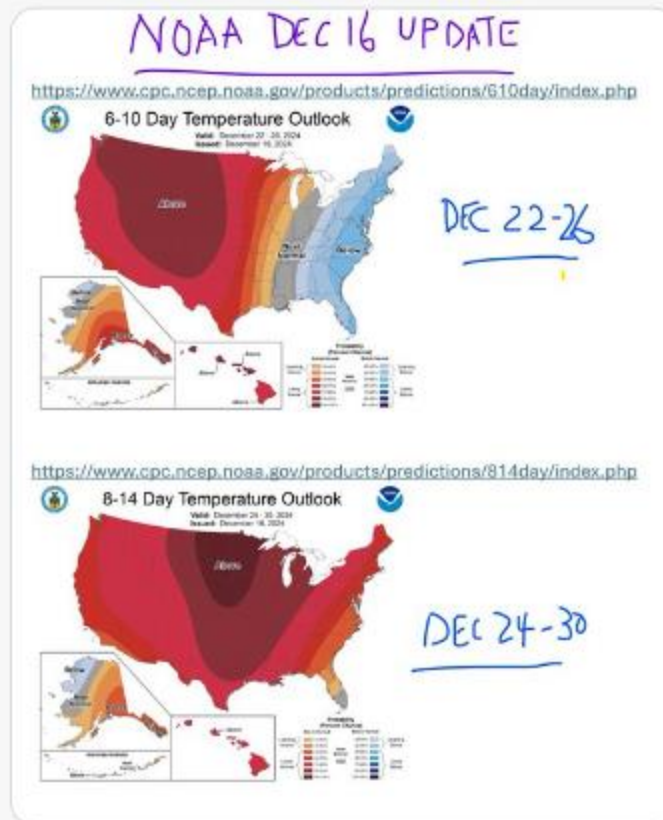
Dan Tsubouchi @Energy_Tidbits · Dec 16

Much warmer than normal temps to end Dec is never a positive for #NatGas.

@NOAA updated temp forecast is to move to well warmer than normal to end Dec.

See 📌 12/14/24 post: warm end to Dec normally leads to softening price trend unless its gets really cold in Jan.

#OOTT



SAF - Dan Tsubouchi @Energy_Tidbits · Dec 14



If @NOAA's updated forecast for warmer than normal temperatures to end Dec turns out right, it's a reason to be cautious on #NatGas starting in a week or so.

Other than 2022 when global #NatGas prices were ...



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Dan Tsubouchi @Energy_Tidbits · Dec 16

...

07/24/24: Netanyahu told Congress it's not if but when Israel takes action vs Iran's nuclear program. See 📌 07/24 post.

]

Surely Israel knows the location of both Iran's public and secret nuclear facilities.

Big question, what does Iran do if Israel strikes???

#OOTT

SAF Dan Tsubouchi @Energy_Tidbits · Jul 24

Netanyahu tells congress. it's not if but when Israel takes action vs Iran nuclear program!


Overlooked geopolitical & #Oil wildcard/risk!

...

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THE TIMES OF ISRAEL ISRAEL AT WAR - DAY 293

JULY 24, 2024
CURRENT TOP STORIES



Addressing Congress, Netanyahu lays out vision for post-war Gaza, anti-Iran alliance

By LAZAR BERMAN and JACOB MADDI

PM blasts Tehran as driving force behind Mideast violence, rails against anti-Israel protesters and defends conduct of campaign, some hostage family members removed for protest

Thousands protest near US Capitol against Netanyahu's speech to Congress

Nine arrested during London protest demanding ban on weapons sales to Israel

SCROLL TO VIEW MORE

the same last. And for this it uses its many proxies, including the Houthis, Hezbollah and Hamas. Yet in the heart of the Middle East, standing in Iran's way, is one proud pro-American democracy—my country, the State of Israel.

That's why the mobs in Tehran chant "Death to Israel!" before they chant "Death to America." For Iran Israel is first, America is next. So, when Israel fights Hamas, we're fighting Iran. When we fight Hezbollah, we're fighting Iran. When we fight the Houthis, we're fighting Iran. And when we fight Iran, we're fighting the most radical and murderous enemy of the United States of America.

And one more thing. When Israel acts to prevent Iran from developing nuclear weapons, nuclear weapons that could destroy Israel and threaten every American city, every city that you come from, we're not only protecting ourselves. We're protecting you.

My friends,

If you remember one thing, one thing from this speech, remember this: Our enemies are your enemies, our fight is your fight, and our victory will be your victory.

Ladies and gentlemen,

That victory is in sight. Israel's defeat of Hamas will be a powerful blow to Iran's axis of terror. Another part of that axis, Hezbollah, attacked Israel on October 8th, a day after the Hamas attack. It has launched thousands of missiles and drones against us. 80,000 of our citizens in northern Israel evacuated their homes, becoming effectively refugees in their own land. We are committed to returning them home. We prefer to achieve this diplomatically. But let me be clear: Israel will do whatever it must do to

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🔖 ↗



Dan Tsubouchi @Energy_Tidbits · Dec 16

Big hit to short/mid term US BEV sales.

Biggest fears for BEV buyers gets worse:

Even more expensive taking away \$7,500 credit.

Even more charging station anxiety cutting remaining Biden \$7.5b for charging station buildout.

More ICE will be offered for longer with relaxed

[Show more](#)



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Dan Tsubouchi @Energy_Tidbits · Dec 15

Negative Chinese consumer indicator.

Trump factor?

Retail sales YoY %

Nov +3.0% YoY vs est +5.0%

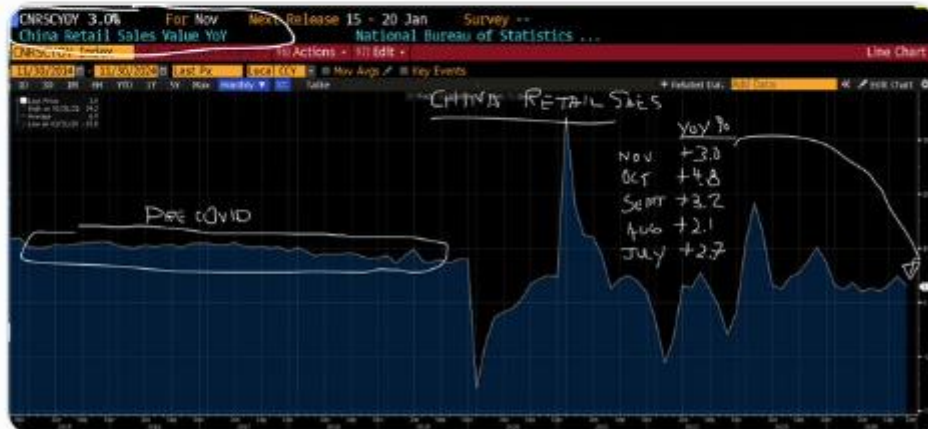
Oct +4.8%

Sep +3.2%

Aug +2.1%

July +2.7%...

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Dan Tsubouchi  @Energy_Tidbits · Dec 15

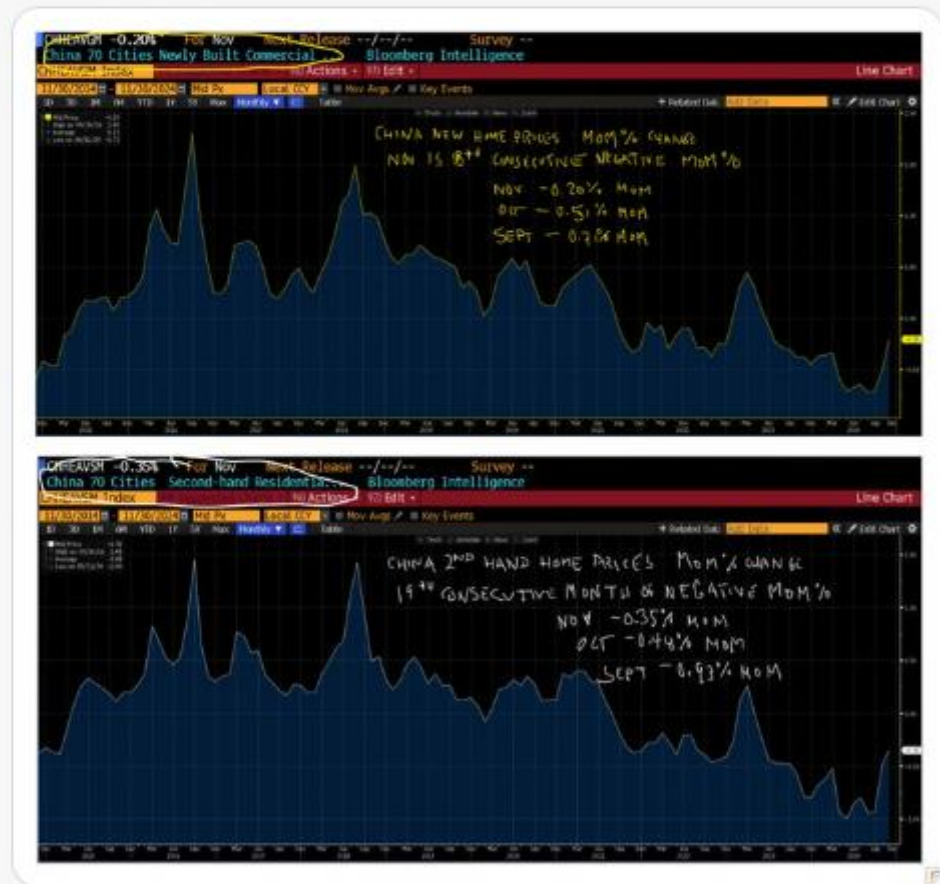
 

Negative China indicator.

Chinese consumer's most important asset, their home values keep going lower even post Sept stimulus.

New home prices: 18th straight MoM % drop. Nov -0.20%, Oct -0.51%. Sept -0.71%.

2nd hand home prices: 19th straight MoM % drop. Nov -0.35%, Oct -0.44%. Sept -0.93% MoM
[Show more](#)





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