Energy Tidbits

Strait of Hormuz Risk as US says Iran Drone Hit a Tanker in the Arabian Sea, Reportedly After Loading/Stopping in Saudi Arabia

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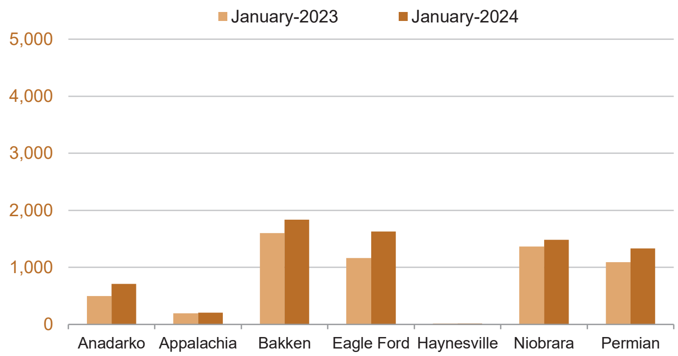
Year-over-year summary

Drilling Productivity Report

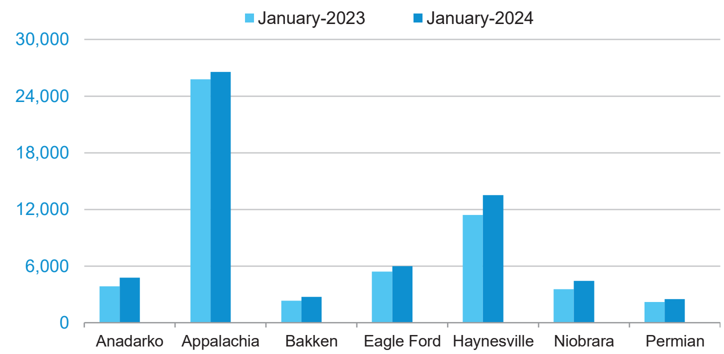
December 2023

drilling data through November
projected production through January

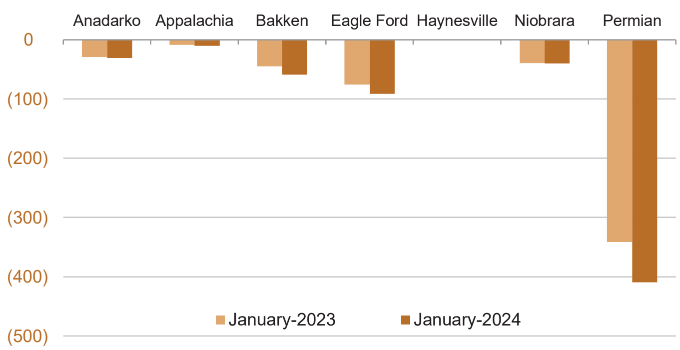
New-well oil production per rig
barrels/day



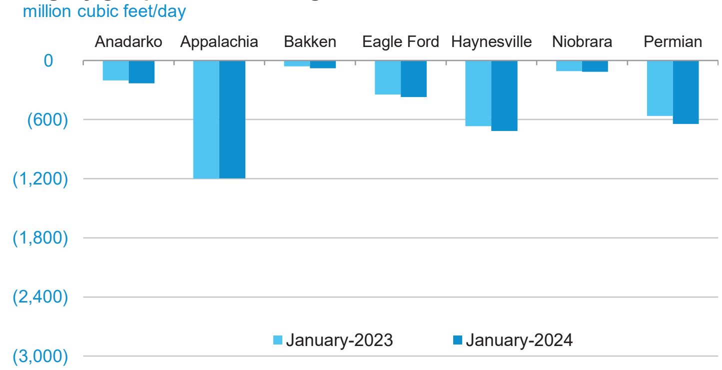
New-well gas production per rig
thousand cubic feet/day



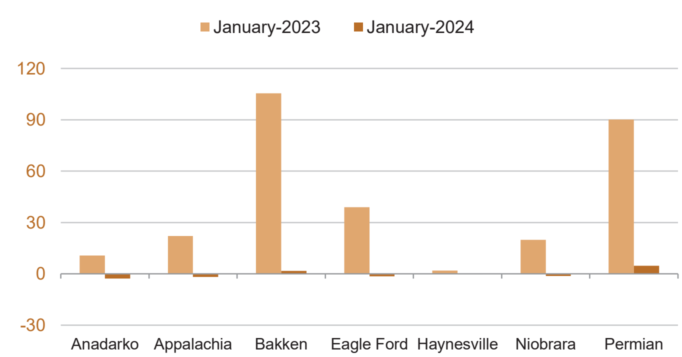
Legacy oil production change
thousand barrels/day



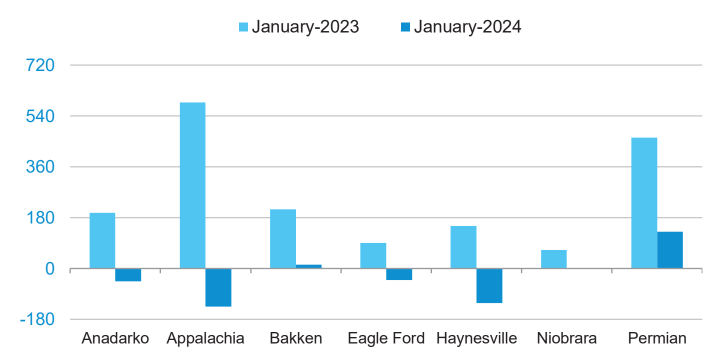
Legacy gas production change
million cubic feet/day



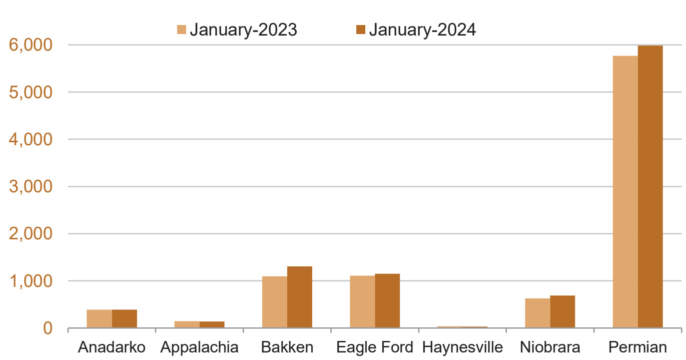
Indicated monthly change in oil production (Jan vs. Dec)
thousand barrels/day



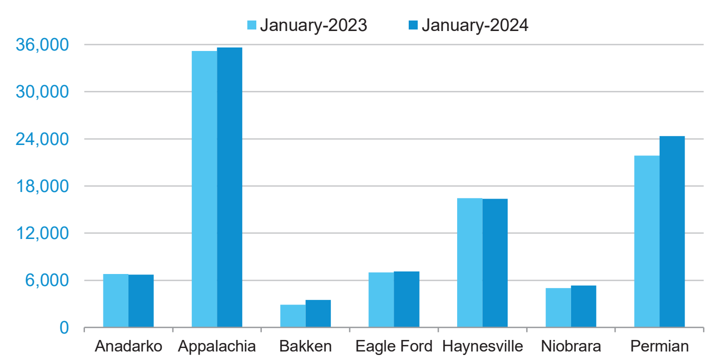
Indicated monthly change in gas production (Jan vs. Dec)
million cubic feet/day



Oil production
thousand barrels/day



Natural gas production
million cubic feet/day



Anadarko Region

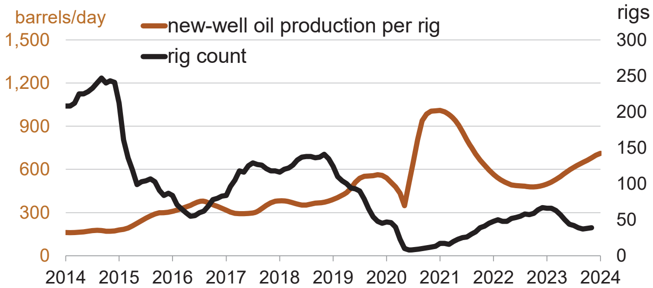
Drilling Productivity Report

December 2023

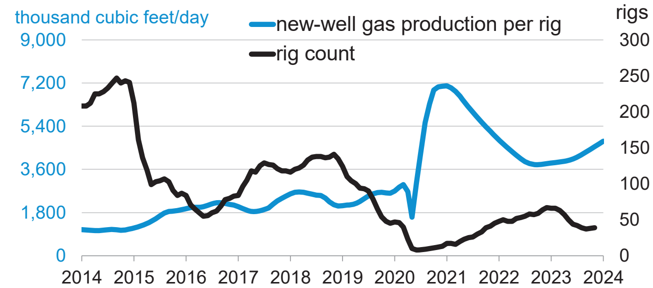
drilling data through November
projected production through January

Oil		Monthly additions from one average rig		Gas
Oil +14 barrels/day month over month	**712** *January* **698** *December* barrels/day		*January* **4,775** *December* **4,659** thousand cubic feet/day	**Gas +116** thousand cubic feet/day month over month

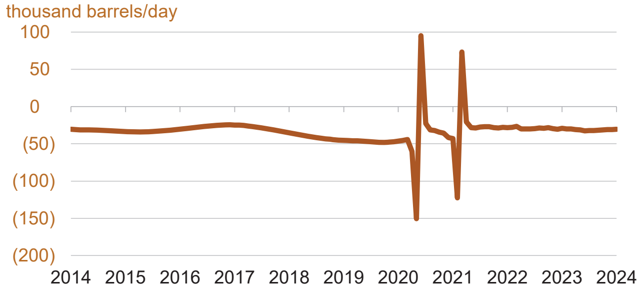
Anadarko Region
New-well oil production per rig — **Rig count**



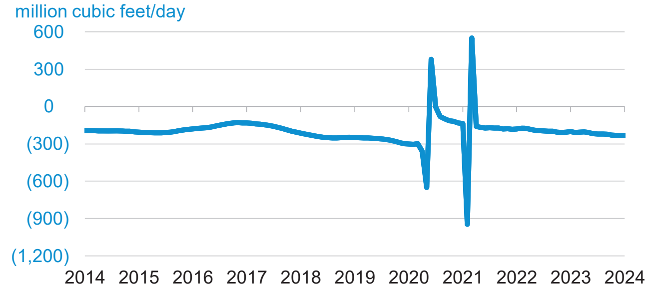
Anadarko Region
New-well gas production per rig — **Rig count**



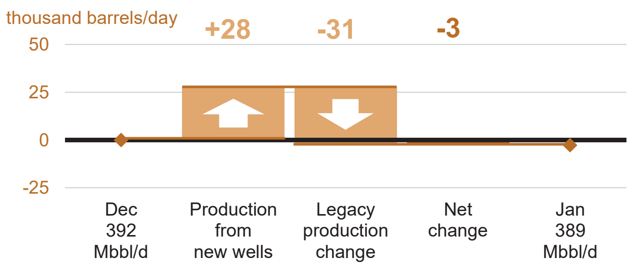
Anadarko Region
Legacy oil production change



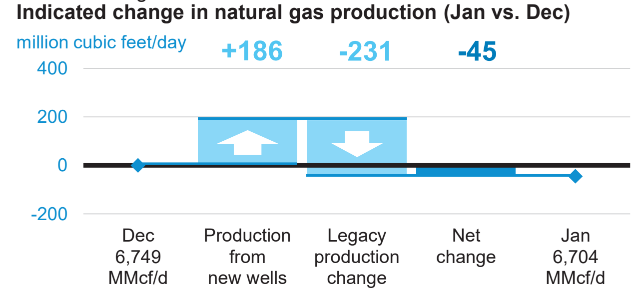
Anadarko Region
Legacy gas production change



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

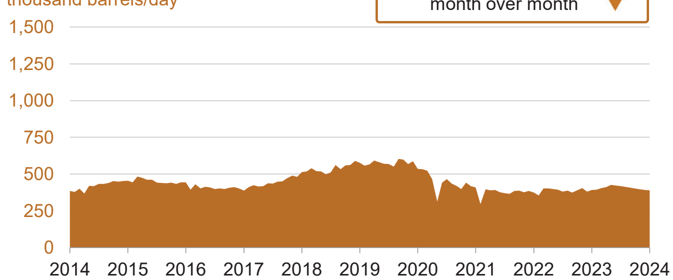


Anadarko Region
Indicated change in natural gas production (Jan vs. Dec)



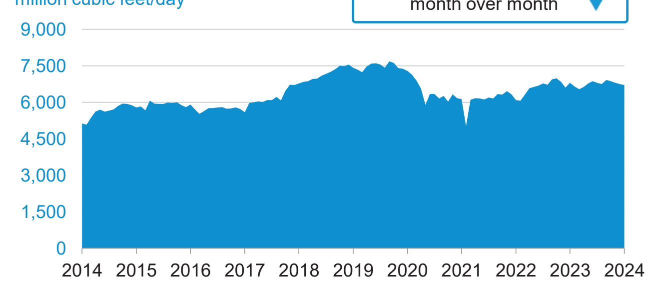
Anadarko Region
Oil production
thousand barrels/day

Oil -3
thousand barrels/day
month over month



Anadarko Region
Natural gas production
million cubic feet/day

Gas -45
million cubic feet/day
month over month



Appalachia Region

Drilling Productivity Report

December 2023

drilling data through November
projected production through January

Oil +1
barrels/day
month over month

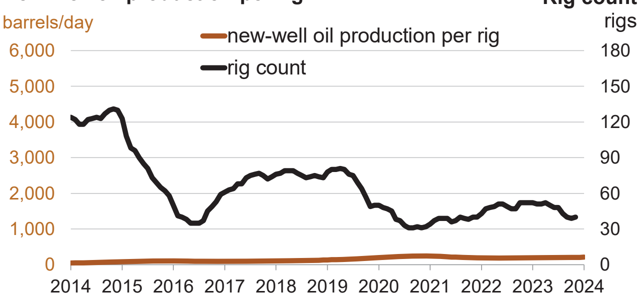
209 *January*
208 *December*
barrels/day

Monthly additions from one average rig

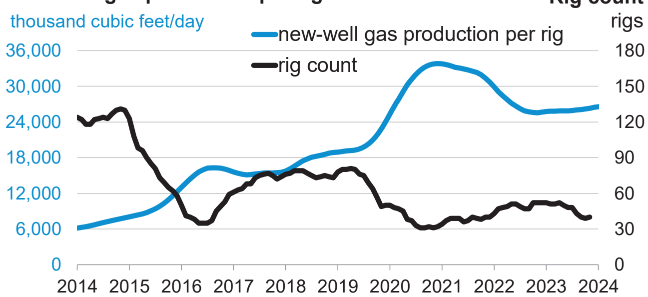
January **26,569**
December **26,442**
thousand cubic feet/day

Gas +127
thousand cubic feet/day
month over month

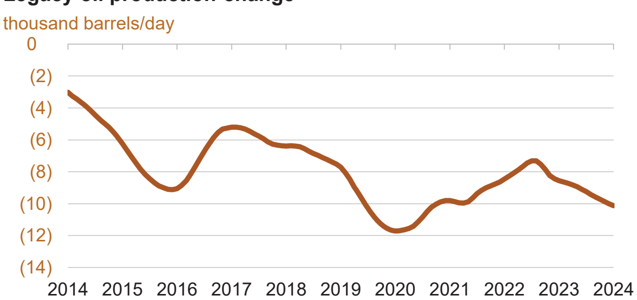
Appalachia Region
New-well oil production per rig



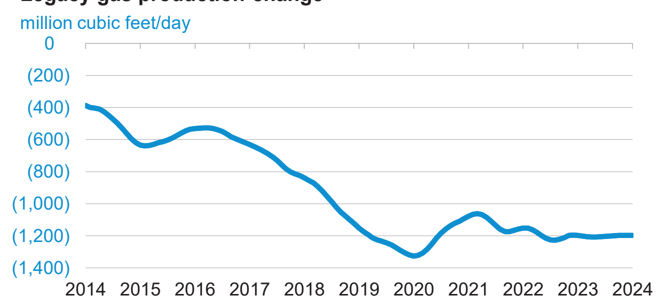
Appalachia Region
New-well gas production per rig



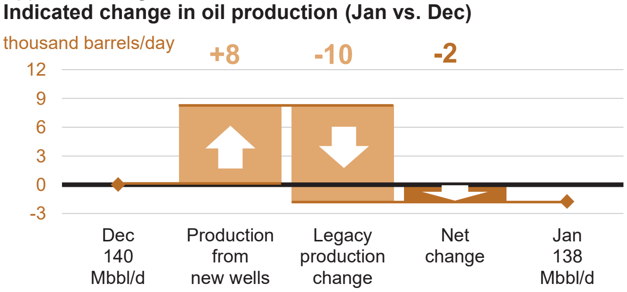
Appalachia Region
Legacy oil production change



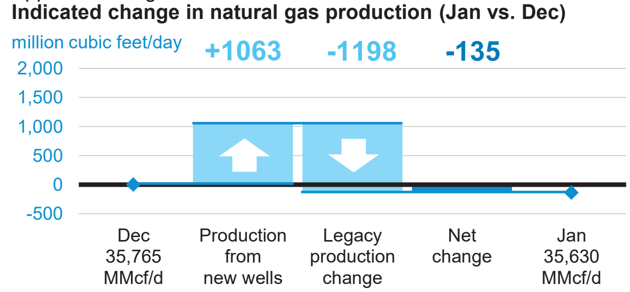
Appalachia Region
Legacy gas production change



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

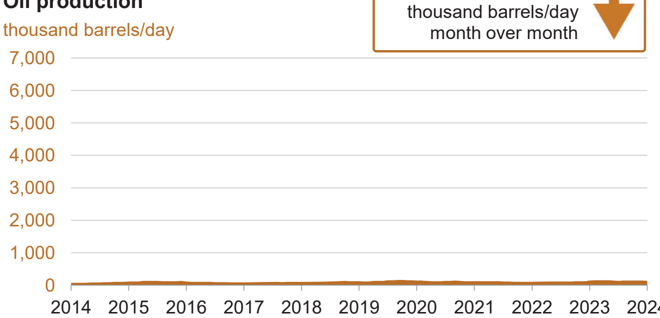


Appalachia Region
Indicated change in natural gas production (Jan vs. Dec)



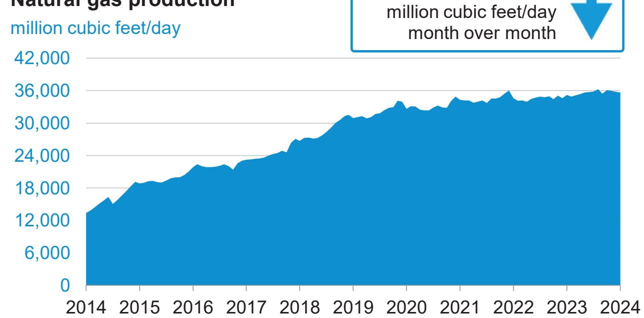
Appalachia Region
Oil production

Oil -2
thousand barrels/day
month over month



Appalachia Region
Natural gas production

Gas -135
million cubic feet/day
month over month



Bakken Region

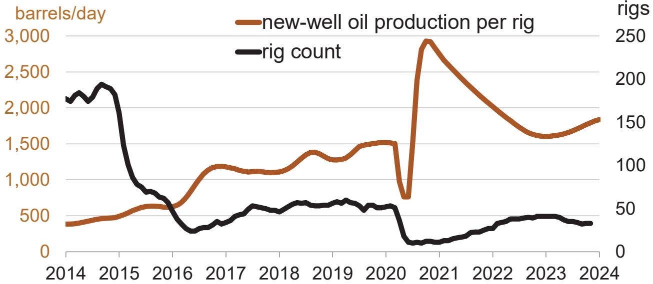
Drilling Productivity Report

December 2023

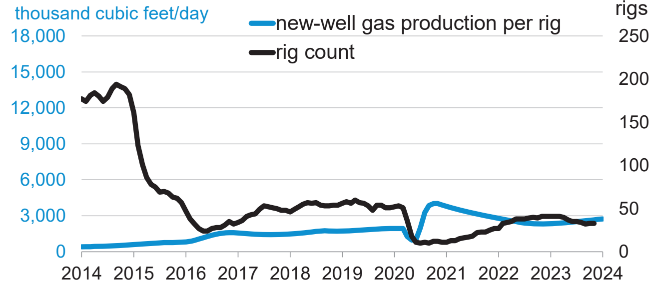
drilling data through November
projected production through January

Oil +20 barrels/day month over month	**1,838** *January* **1,818** *December* barrels/day	**Monthly additions from one average rig**	*January* **2,746** *December* **2,705** thousand cubic feet/day	**Gas +41** thousand cubic feet/day month over month

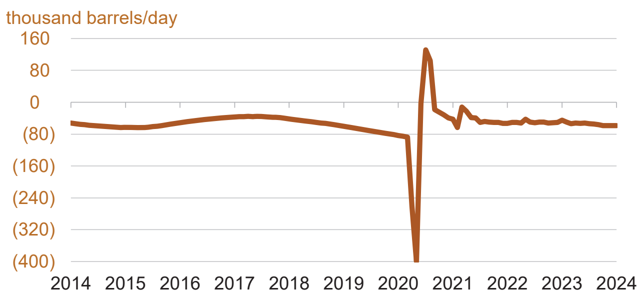
Bakken Region
New-well oil production per rig **Rig count**



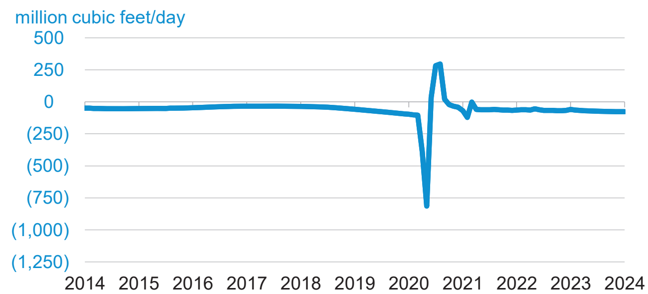
Bakken Region
New-well gas production per rig **Rig count**



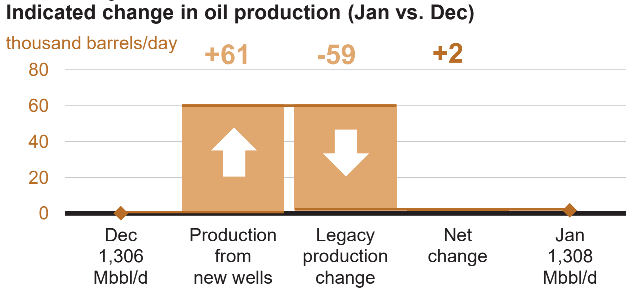
Bakken Region
Legacy oil production change



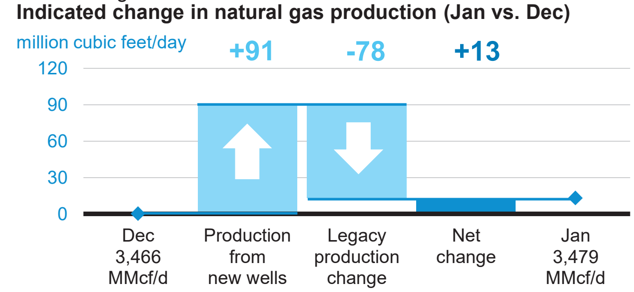
Bakken Region
Legacy gas production change



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



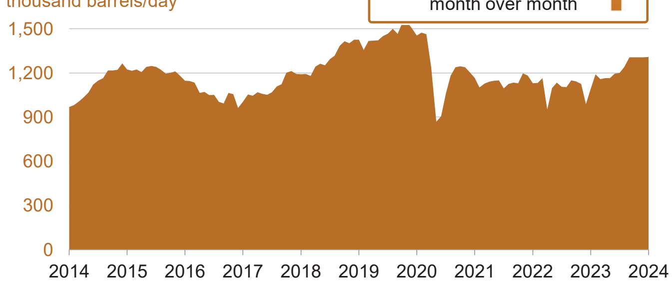
Bakken Region
Indicated change in natural gas production (Jan vs. Dec)



Bakken Region
Oil production

thousand barrels/day

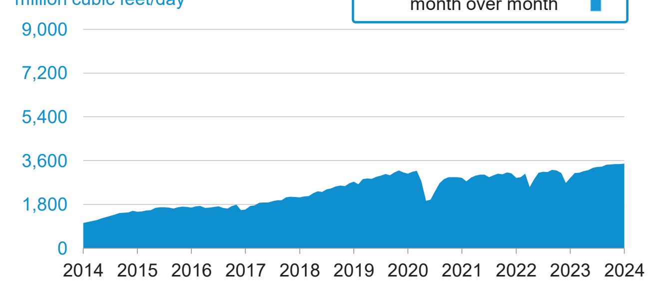
Oil +2
thousand barrels/day
month over month



Bakken Region
Natural gas production

million cubic feet/day

Gas +13
million cubic feet/day
month over month



Eagle Ford Region

Drilling Productivity Report

December 2023

drilling data through November
projected production through January

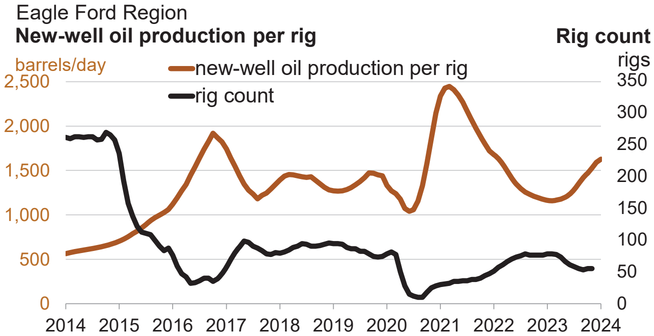
Oil +39 barrels/day month over month

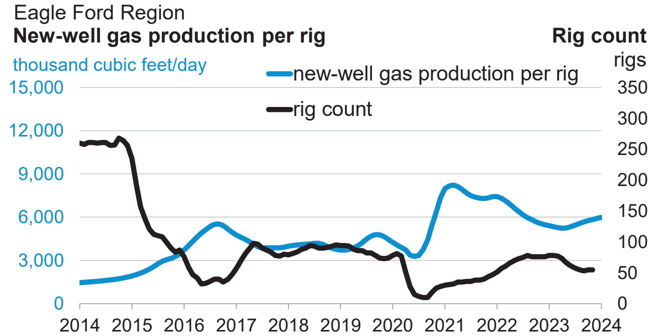
1,629 *January*
1,590 *December*
barrels/day

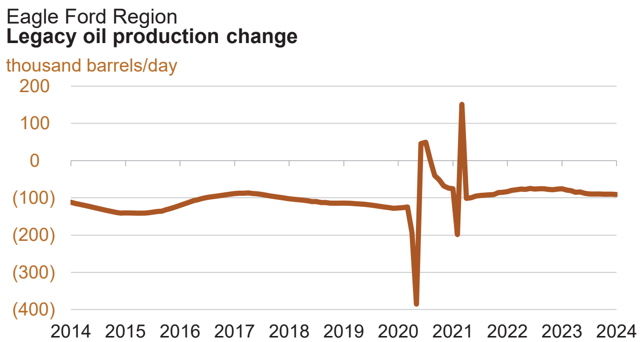
Monthly additions from one average rig

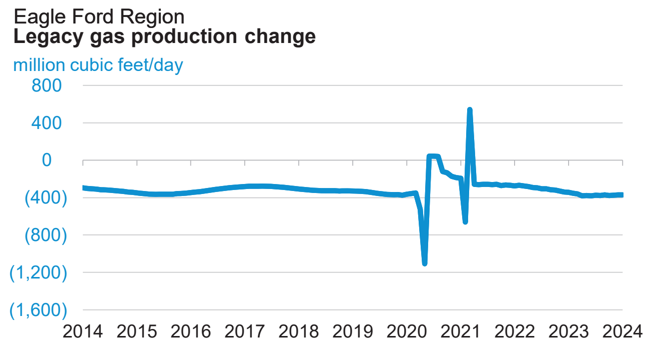
January **5,989**
December **5,930**
thousand cubic feet/day

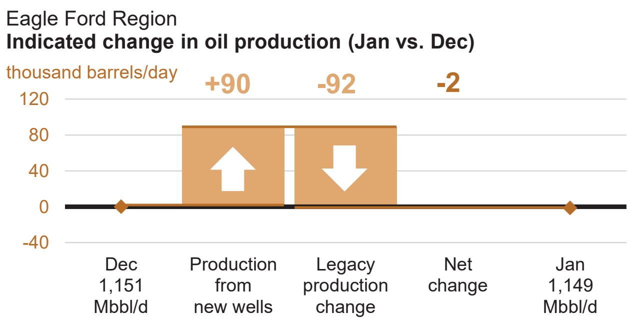
Gas +59 thousand cubic feet/day month over month

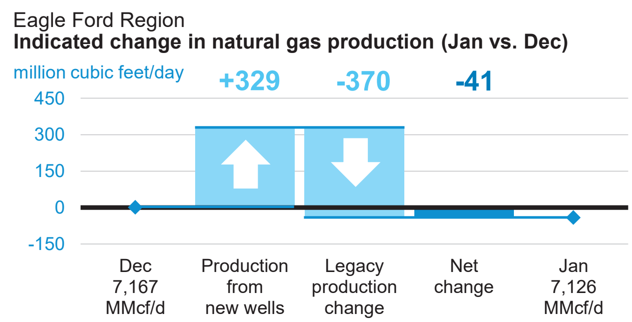


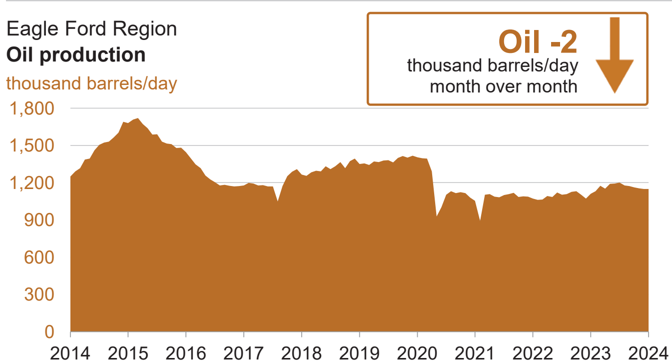


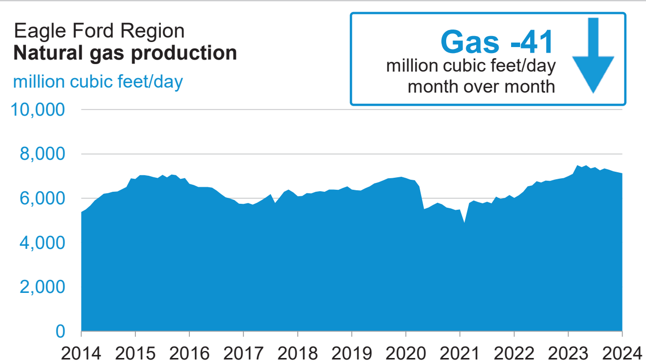












Haynesville Region

Drilling Productivity Report

December 2023

drilling data through November
projected production through January

Oil
0
barrels/day
month over month

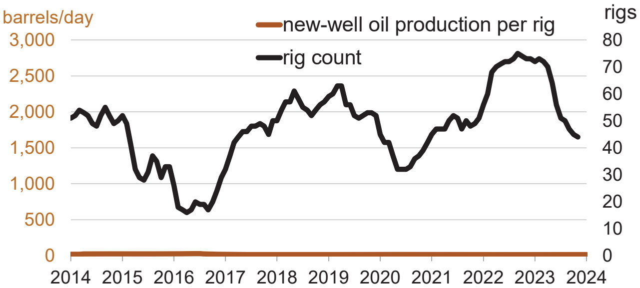
18 *January*
18 *December*
barrels/day

Monthly additions from one average rig

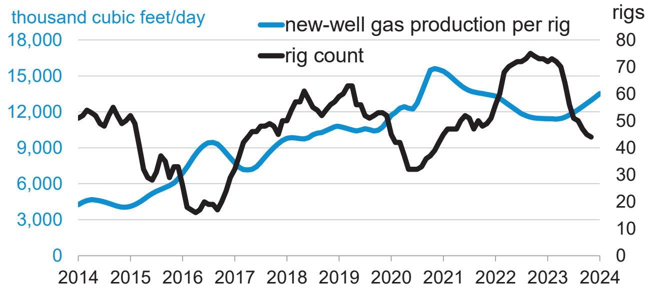
January **13,517**
December **13,239**
thousand cubic feet/day

Gas
+278
thousand cubic feet/day
month over month

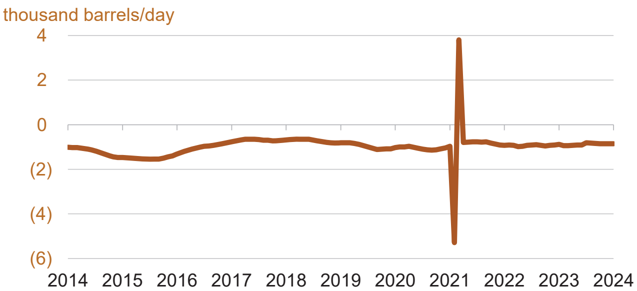
Haynesville Region
New-well oil production per rig



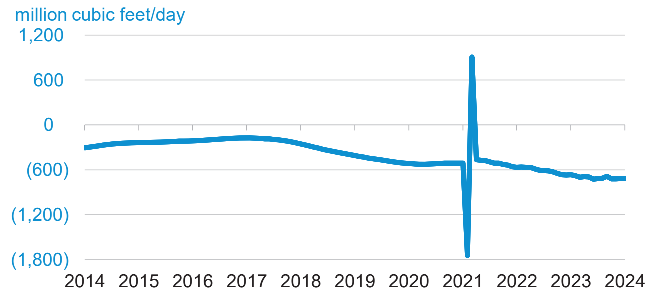
Haynesville Region
New-well gas production per rig



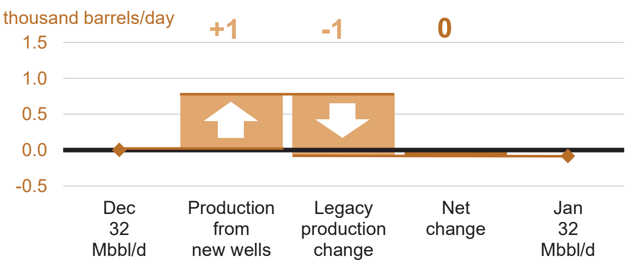
Haynesville Region
Legacy oil production change



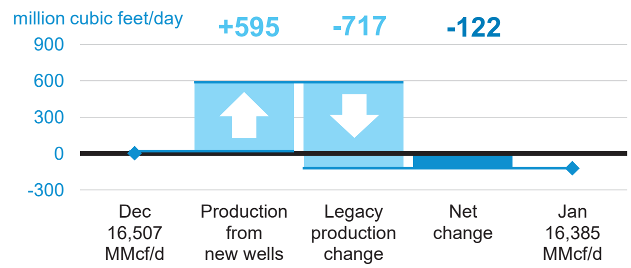
Haynesville Region
Legacy gas production change



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

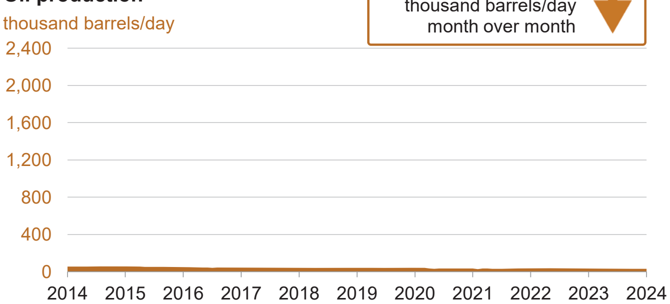


Haynesville Region
Indicated change in natural gas production (Jan vs. Dec)



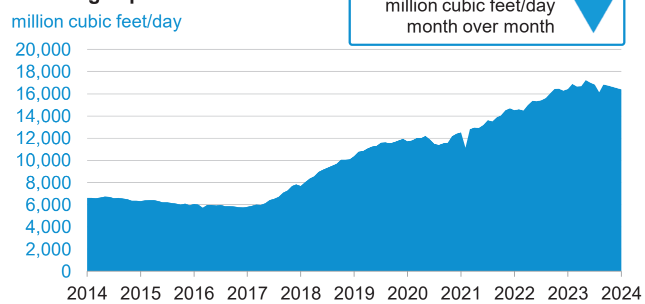
Haynesville Region
Oil production

Oil 0
thousand barrels/day
month over month



Haynesville Region
Natural gas production

Gas -122
million cubic feet/day
month over month



Niobrara Region

Drilling Productivity Report

December 2023

drilling data through November
projected production through January

Oil +15 barrels/day month over month

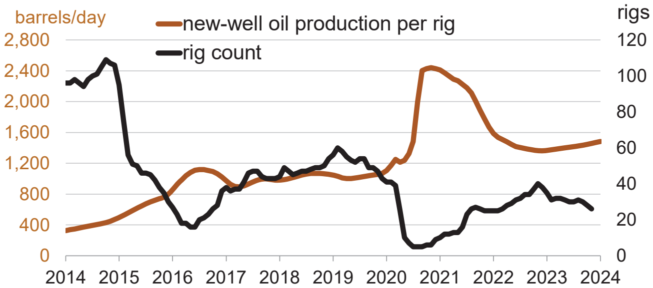
1,484 *January*
1,469 *December*
barrels/day

Monthly additions from one average rig

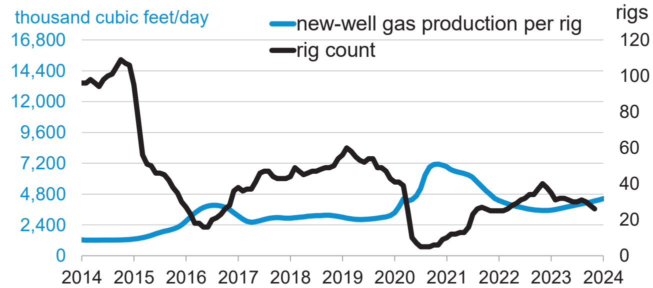
January **4,434**
December **4,347**
thousand cubic feet/day

Gas +87 thousand cubic feet/day month over month

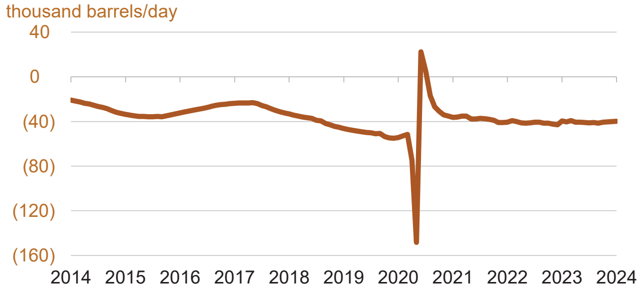
Niobrara Region
New-well oil production per rig **Rig count**



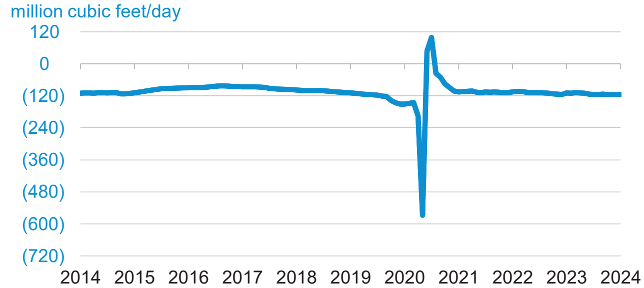
Niobrara Region
New-well gas production per rig **Rig count**



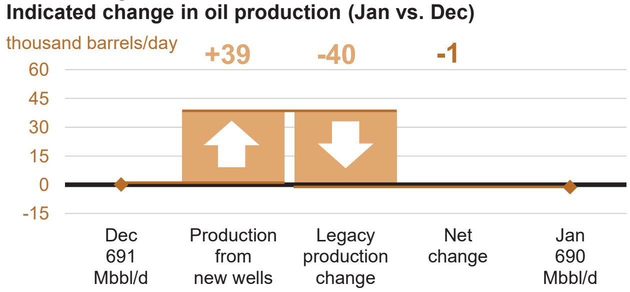
Niobrara Region
Legacy oil production change



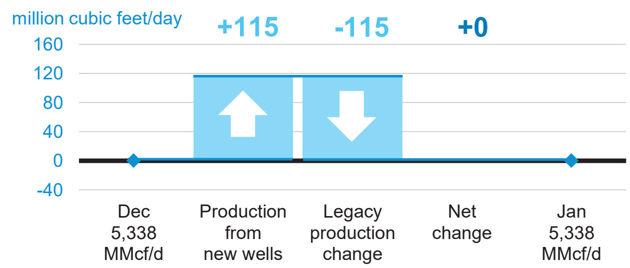
Niobrara Region
Legacy gas production change



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

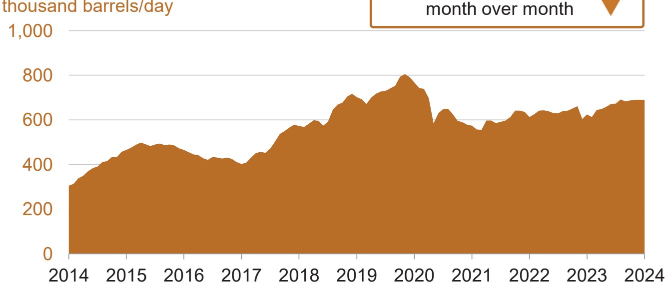


Niobrara Region
Indicated change in natural gas production (Jan vs. Dec)



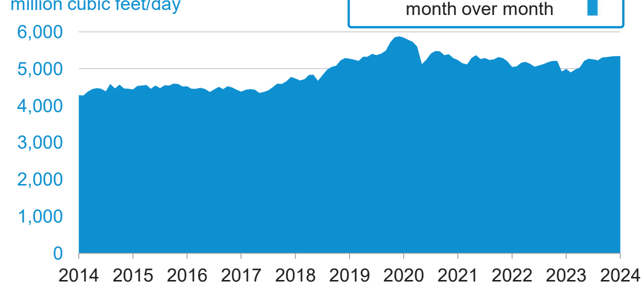
Niobrara Region
Oil production

Oil -1 thousand barrels/day month over month



Niobrara Region
Natural gas production

Gas +0 million cubic feet/day month over month



Permian Region

Drilling Productivity Report

December 2023

drilling data through November
projected production through January

Oil +13
barrels/day
month over month

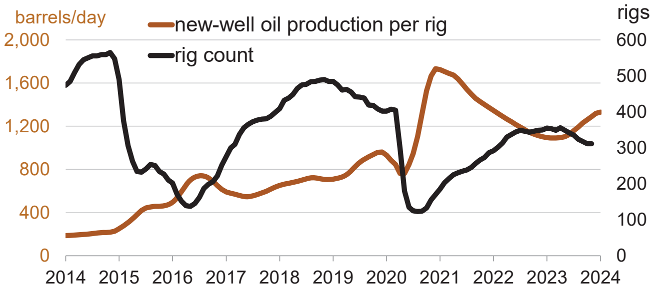
1,332 *January*
1,319 *December*
barrels/day

Monthly additions from one average rig

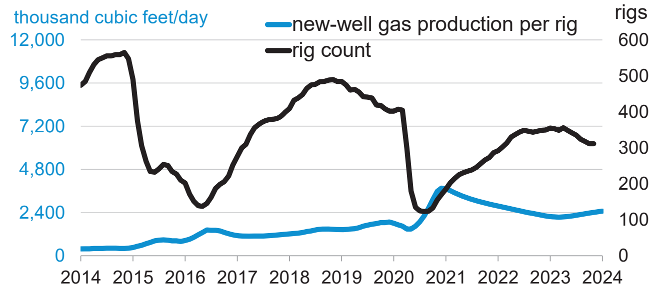
January **2,489**
December **2,450**
thousand cubic feet/day

Gas +39
thousand cubic feet/day
month over month

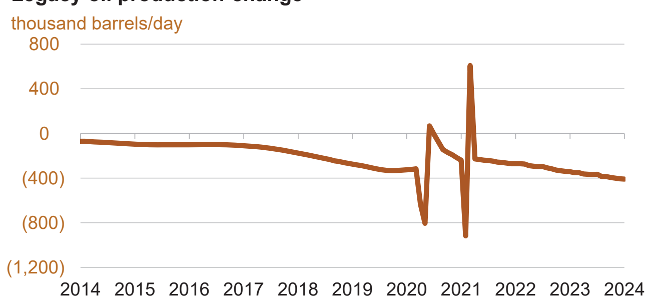
Permian Region
New-well oil production per rig — **Rig count**



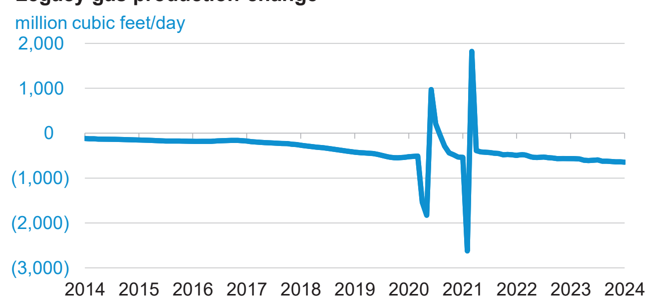
Permian Region
New-well gas production per rig — **Rig count**



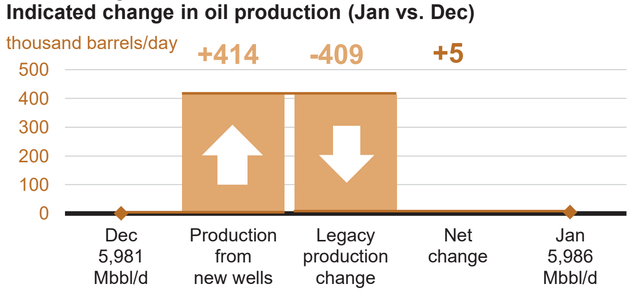
Permian Region
Legacy oil production change



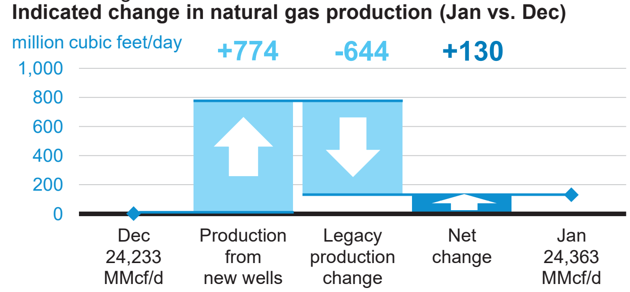
Permian Region
Legacy gas production change



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

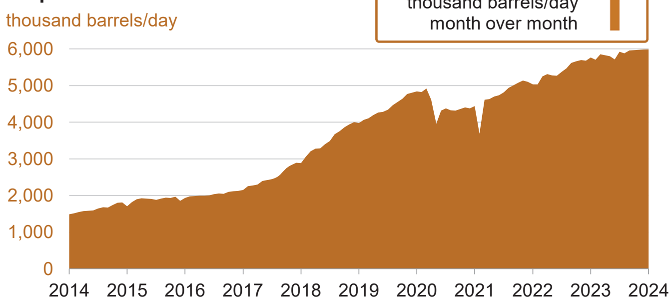


Permian Region
Indicated change in natural gas production (Jan vs. Dec)



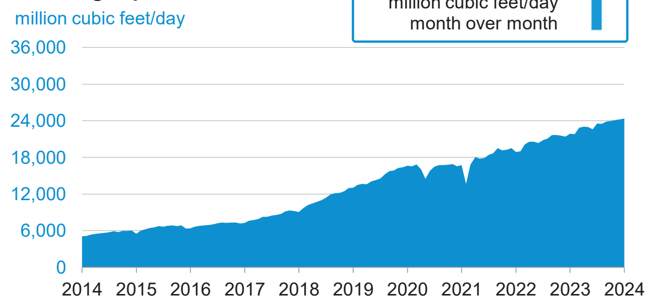
Permian Region
Oil production

Oil +5
thousand barrels/day
month over month



Permian Region
Natural gas production

Gas +130
million cubic feet/day
month over month



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

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

New-well oil/gas production per rig
Charts present historical estimated monthly additions from one average rig coupled with the number of total drilling rigs as reported by Baker Hughes.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

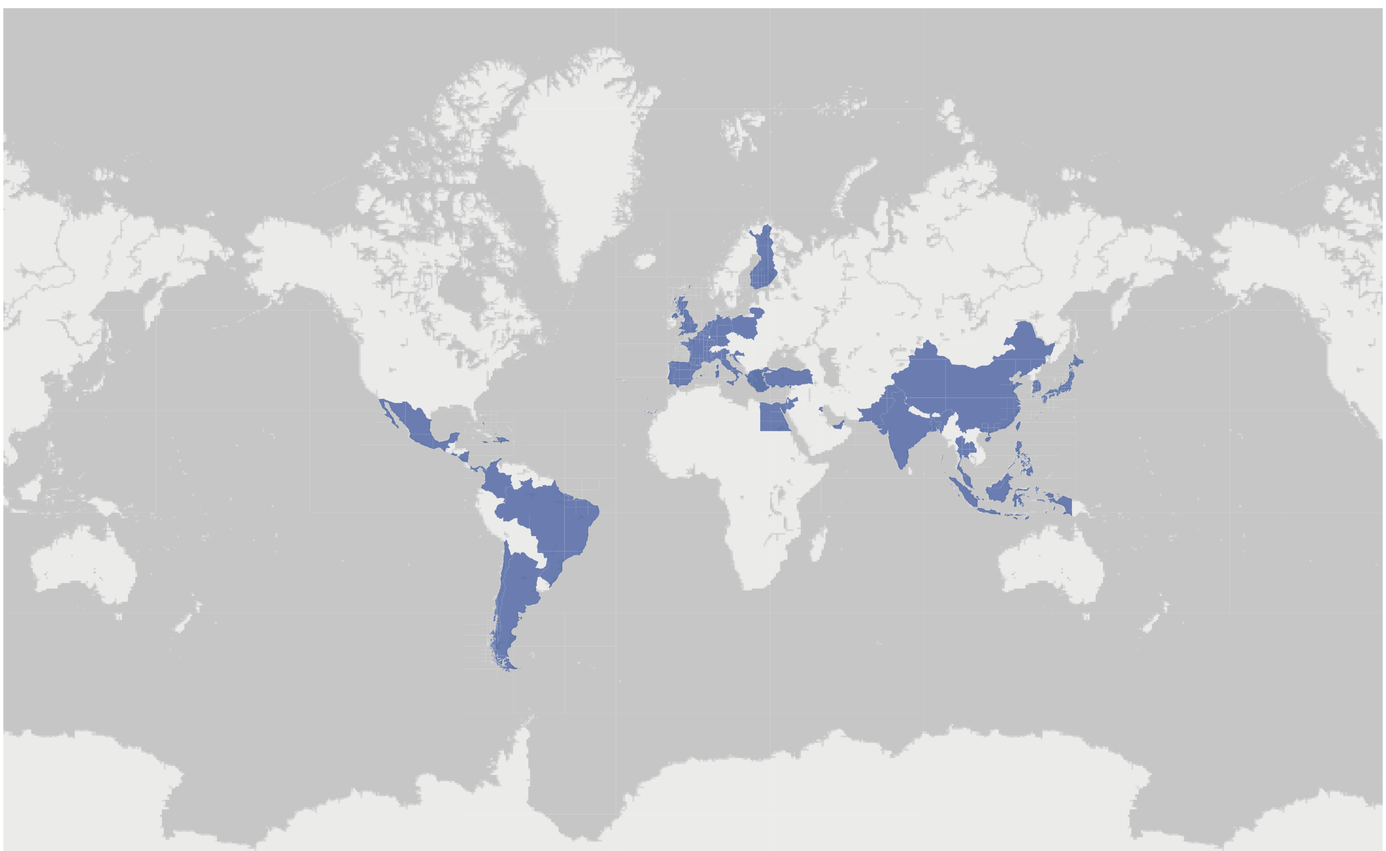
U.S. DEPARTMENT OF ENERGY | Fossil Energy and Carbon Management

OFFICE OF RESOURCE SUSTAINABILITY

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

U.S. Natural Gas Imports and Exports Monthly
October 2023

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



U.S. LNG Historical Countries of Destination

To be placed on the U.S. Natural Gas Imports & Exports Monthly email distribution list, please add your contact information here.
All other inquiries, please send an email to ngreports@hq.doe.gov.
For electronic version: https://www.energy.gov/fecm/listings/natural-gas-imports-exports-monthly-reports

Executive Summary

October 2023

Summary

In October 2023, the United States exported 651.3 Bcf and imported 247.7 Bcf of natural gas, which resulted in 403.6 Bcf of net exports.

U.S. LNG Exports

The United States exported 384.4 Bcf (59.0% of total U.S. natural gas exports) of natural gas in the form of liquefied natural gas (LNG) to 28 countries.

- Europe (259.7 Bcf, 67.6%), Asia (101.8 Bcf, 26.5%), Latin America/ Caribbean (22.9 Bcf, 6.0%)
- 10.9% increase from September 2023
- 24.1% increase from October 2022
- 88.2% of total LNG exports went to non-Free Trade Agreement countries (nFTA), while the remaining 11.8% went to Free Trade Agreement countries (FTA).

U.S. LNG exports to the top five countries of destination accounted for 54.7% of total U.S. LNG exports.

- France (53.6 Bcf, 13.9%), Spain (49.8 Bcf, 13.0%), Netherlands (49.7 Bcf, 12.9%), United Kingdom (28.8 Bcf, 7.5%), and South Korea (28.2 Bcf, 7.3%).

U.S. Imports and Exports by Pipeline and Truck with Mexico

The United States exported 200.0 Bcf of natural gas to Mexico and imported less than 0.1 Bcf of natural gas from Mexico, which resulted in 199.9 Bcf of net exports.

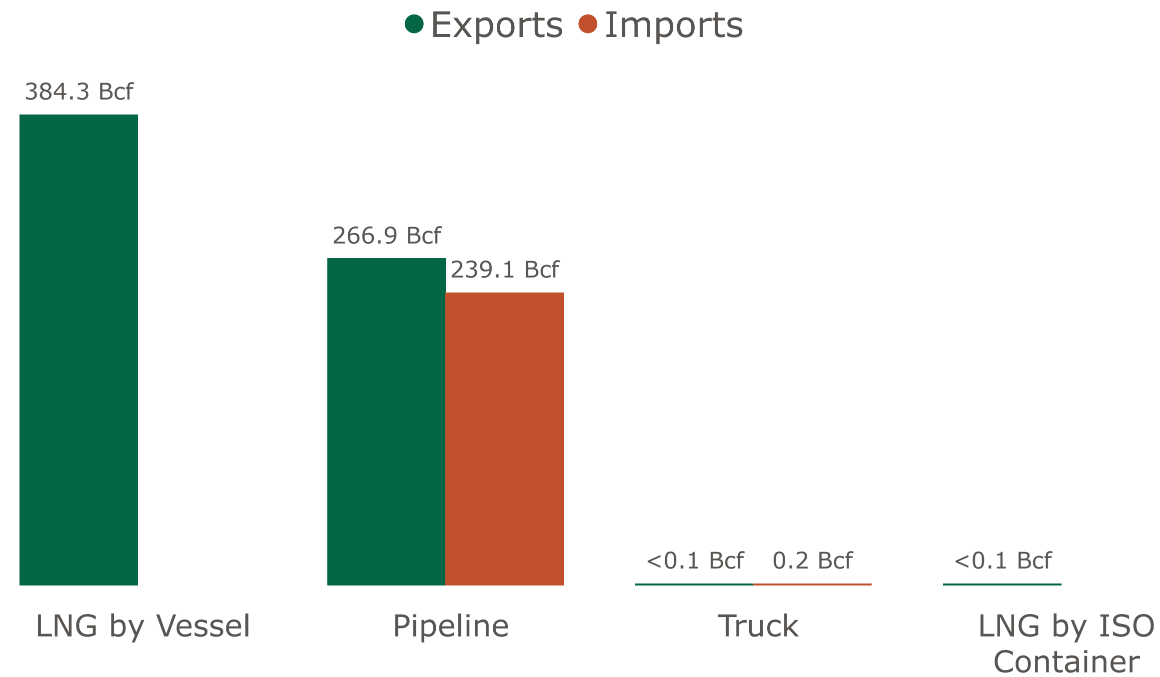
- 1.2% decrease from September 2023
- 16.3% increase from October 2022

U.S. Imports and Exports by Pipeline and Truck with Canada

The United States exported 66.9 Bcf of natural gas to Canada and imported 239.3 Bcf of natural gas from Canada, which resulted in 172.3 Bcf of net imports.

- 12.7% increase from September 2023
- 8.0% increase from October 2022

U.S. Natural Gas Imports & Exports by Mode of Transport (October 2023)



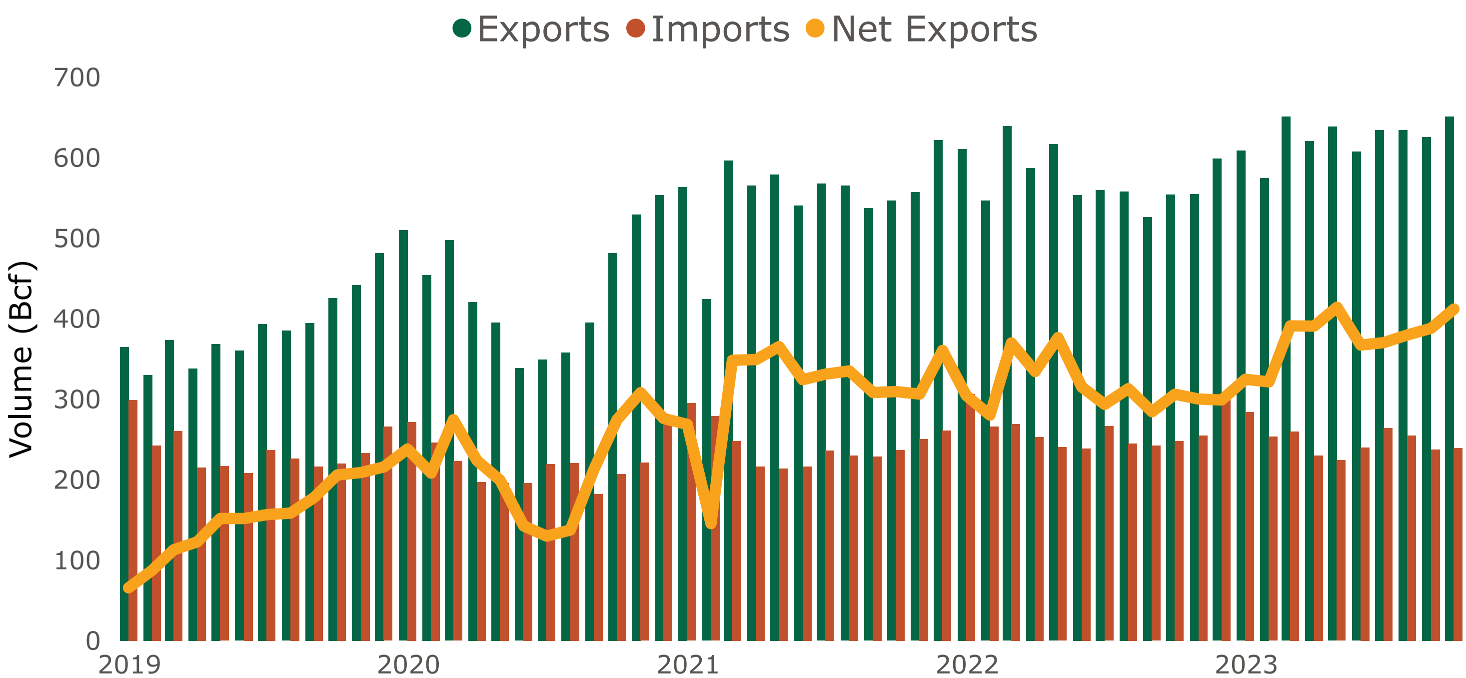
1a. Monthly Summary: U.S. Natural Gas Imports & Exports by Mode of Transport

Volume (Bcf)	Monthly			Percentage Change	
Mode of Transport	**Oct 2023**	**Sep 2023**	**Oct 2022**	**Oct 2023 vs. Sep 2023**	**Oct 2023 vs. Oct 2022**
Exports					
LNG by Vessel	384.3	346.5	309.4	11%	24%
Pipeline	266.9	279.0	244.5	-4%	9%
Truck	<0.1	<0.1	0.2	-47%	-86%
LNG by ISO Container	<0.1	<0.1	0.2	-30%	-73%
Total	**651.3**	**625.6**	**554.3**	**4%**	**17%**
Imports					
LNG by Vessel	0	0	0	–	–
Pipeline	239.1	237.5	247.9	<1%	-4%
Truck	0.2	0.2	0.2	23%	1%
LNG by ISO Container	0	0	0	–	–
Total	**239.3**	**237.7**	**248.2**	**<1%**	**-4%**
Net Exports	**412.0**	**388.0**	**306.2**	**6%**	**35%**

Notes

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

U.S. Natural Gas Imports & Exports



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

Volume (Bcf)	Year-to-Date (Jan-Oct)			Annual		
Mode of Transport	**YTD 2023**	**YTD 2022**	**% Change**	**2022**	**2021**	**% Change**
Exports						
LNG by Vessel	3,532.6	3,220.0	10%	3,861.9	3,558.3	9%
Pipeline	2,712.2	2,529.7	7%	3,040.8	3,103.3	-2%
Truck	0.6	1.3	-52%	1.6	1.6	3%
LNG by ISO Container	1.0	1.7	-43%	2.1	1.1	83%
Total	**6,246.4**	**5,752.8**	**9%**	**6,906.4**	**6,664.4**	**4%**
Imports						
LNG by Vessel	10.5	19.5	-46%	23.5	21.4	10%
Pipeline	2,474.5	2,553.9	-3%	3,104.0	2,890.5	7%
Truck	2.1	1.7	23%	2.1	0.5	296%
LNG by ISO Container	0	0	–	0	0	–
Total	**2,487.1**	**2,575.1**	**-3%**	**3,129.6**	**2,912.4**	**7%**
Net Exports	**3,759.3**	**3,177.7**	**18%**	**3,776.8**	**3,752.0**	**<1%**

Notes

- Does not include LNG Re-Exports or Puerto Rico LNG Imports or Exports. See Table 6 for LNG Re-Exports and Table 8 for Puerto Rico LNG Imports and Exports.
- Totals may not equal sum of components because of independent rounding.
- not applicable(-).

https://www.adnoc.ae/en/news-and-media/press-releases/2023/adnoc-signs-first-long-term-lng-heads-of-agreement-from-ruwais-low-carbon-lng-project

ADNOC Signs First Long-Term LNG Heads of Agreement from Ruwais Low-Carbon LNG Project

15-year LNG agreement with ENN Natural Gas for at least 1 mmtpa reinforces ADNOC's role as a reliable and responsible global energy provider

Deliveries are expected to start in 2028, upon commencement of commercial operations at the facility

Natural gas is a key transition fuel and the Ruwais project is set to be first in MENA to run on clean power, making it one of the lowest-carbon intensity LNG facilities in the world

Abu Dhabi, UAE – December 20, 2023: ADNOC announced today, the signing of a 15-year Heads of Agreement ("LNG agreement") with ENN LNG (Singapore) Pte. Ltd. ("ENN LNG"), a wholly-owned subsidiary of ENN Natural Gas Co. Ltd. ("ENN Natural Gas"), for the delivery of at least 1 million metric tons per annum (mmtpa) of liquefied natural gas (LNG).

The LNG will primarily be sourced from ADNOC's low-carbon Ruwais LNG project, currently under development in Al Ruwais Industrial City, Abu Dhabi. The deliveries are expected to start in 2028, upon commencement of the facility's commercial operations.

Rashid Khalfan Al Mazrouei, ADNOC Senior Vice President, Marketing, said: "This landmark LNG agreement from our ongoing Ruwais LNG project enhances ADNOC's position as a reliable and responsible global energy provider and creates new opportunities for value-creation across our gas value chain as natural gas demand continues to increase. We are making excellent progress in delivering this strategic project as we grow our portfolio of lower-carbon energy solutions to enable the energy transition and we will continue to support our customers and partners on this journey."

The Ruwais LNG project is set to be the first LNG export facility in the Middle East and North Africa (MENA) region to run on clean power, making it one of the lowest-carbon intensity LNG plants in the world, supporting ADNOC's accelerated Net Zero by 2045 ambition. When completed, the project, which consists of two 4.8 mmtpa LNG liquefaction trains with a total capacity of 9.6 mmtpa, will more than double ADNOC's LNG production capacity to help meet increased global demand for natural gas.

The LNG agreement is contingent upon a final investment decision (FID) on the project, including regulatory approvals, and the negotiation of a definitive Sale and Purchase Agreement between the two companies.

Asian LNG Buyers Abruptly Change and Lock in Long Term Supply – Validates Supply Gap, Provides Support For Brownfield LNG FIDs

Posted 11am on July 14, 2021

The last 7 days has shown there is a sea change as Asian LNG buyers have made an abrupt change in their LNG contracting and are moving to lock in long term LNG supply. This is the complete opposite of what they were doing pre-Covid when they were trying to renegotiate Qatar LNG long term deals lower and moving away from long term deals to spot/short term sales. Why? We think they did the same math we did in our April 28 blog "*Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?*" and saw a much bigger and sooner LNG supply gap driven by the delay of 5 bcf/d of Mozambique LNG that was built into most, if not all LNG supply forecasts. Asian LNG buyers are committing real dollars to long term LNG deals, which we believe is the best validation for the LNG supply gap. Another validation, Shell, Total and others are aggressively competing to invest long term capital to partner in Qatar Petroleum's massive 4.3 bcf/d LNG expansion despite plans to reduce fossil fuels production in the 2020s. And even more importantly to LNG suppliers, the return to long term LNG contracts provides the financing capacity to commit to brownfield LNG FIDs. The abrupt change by Asian LNG buyers to long term contracts is a game changer for LNG markets and sets the stage for brownfield LNG FIDs likely as soon as before year end 2021. It has to be brownfield LNG FIDs if the gap is coming bigger and sooner. And we return to our April 28 blog point, if brownfield LNG is needed, what about Shell looking at 1.8 bcf/d brownfield LNG Canada Phase 2? LNG Canada Phase 1 at 1.8 bcf/d capacity is already a material positive for Cdn natural gas producers. A FID on LNG Canada Phase 2 would be huge, meaning 3.6 bcf/d of Cdn natural gas will be tied to Asian LNG markets and not competing in the US against Henry Hub. And with a much shorter distance to Asian LNG markets. This is why we focus on global LNG markets for our views on the future value of Canadian natural gas.

<u>Sea change in Asian LNG buyers is also the best validation of the LNG supply gap and big to LNG supply FIDs.</u> Has the data changed or have the market participants changed in how they react to the data? We can't recall exactly who said that on CNBC on July 12, it's a question we always ask ourselves. In the LNG case, the data has changed with Mozambique LNG delays and that has directly resulted in market participants changing and entering into long term contracts. We can't stress enough how important it is to see Asian LNG buyers move to long term LNG deals. (i) Validates the sooner and bigger LNG supply gap. We believe LNG markets should look at the last two weeks of new long term deals for Asian LNG buyers as being the validation of the LNG supply gap that clearly emerged post Total declaring force majeure on its 1.7 bcf/d Mozambique LNG Phase 1 that was under construction and on track for first LNG delivery in 2024. Since then, markets have started to realize the Mozambique delays are much more than 1.7 bcf/d. They have seen major LNG suppliers change their outlook to a more bullish LNG outlook and, most importantly, are now seeing Asian LNG buyers changing from trying to renegotiate long term LNG deals lower to entering into long term LNG deals to have security of supply. Asian LNG buyers are cozying up to Qatar in a prelude to the next wave of Asian buyer long term deals. What better validation is there than companies/countries putting their money where their mouth is. (ii) Provides financial commitment to help push LNG suppliers to FID. We believe these Asian LNG buyers are doing much more than validating a LNG supply gap to markets. The big LNG suppliers can move to FID based on adding more LNG supply to their portfolio, but having more long term deals provides the financial anchor/visibility to long term capital commitment from the buyers. Long term contracts will only help LNG suppliers get to FID.

<u>It was always clear that the Mozambique LNG supply delay was 5.0 bcf/d, not just 1.7 bcf/d from Total Phase 1.</u> LNG markets didn't really react to Total's April 26 declaration of force majeure on its 1.7 bcf/d Mozambique LNG Phase 1. This was an under construction project that was on time to deliver first LNG in 2024. It was in all LNG supply forecasts. There was no timeline given but, on the Apr 29 Q1 call, Total said that it expected any restart decision would be least a year away. If so, we believe that puts any actual construction at least 18 months away. There will be work to do just to get back to where they were when they were forced to stop development work on Phase 1. Surprisingly, markets didn't look the broader implications, which is why we posted our 7-pg Apr 28 blog "*Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?*" [LINK] We highlighted that Mozambique LNG delays were actually 5 bcf/d, not 1.7 bcf/d. And this 5 bcf/d of Mozambique LNG supply was built into most, if not all, LNG supply forecasts. The delay in Total Phase 1 would lead to a commensurate delay in its Mozambique LNG Phase 2 of 1.3 bcf/d. Total Phase 2 was to add 1.3 bcf/d. There was no firm in service date, but it was expected to

follow closely behind Phase 1 to maintain services. That would have put it originally in the 2026/2027 period. But if Phase 1 is pushed back at least 2 years, so will the follow on Phase 2, so more likely, it will be at least 2028/2029. The assumption for most, if not all, LNG forecasts was that Phase 2 would follow Phase 1. Exxon Rozuma Phase 1 of 2.0 bcf/d continues to be pushed back in timeline especially following Total Phase 1. Exxon's Mozambique Rozuma Phase 1 LNG will add 2.0 bcf/d and, pre-Covid, was originally expected to be in service in 2025. The project was being delayed and Total's force majeure has added to the delays. Rozuma onshore LNG facilities are right by Total. On June 20, we tweeted [LINK] on the Reuters report "*Exclusive: Galp says it won't invest in Rovuma until Mozambique ensures security*" [LINK]. Galp is one of Exxon's partners in Rozuma. Reuters reported that Galp said they won't invest in Exxon's Rozuma LNG project until the government ensures security, that this may take a while, they won't be considering the project until after Total has reliably resumed work on its Phase 1, which likely puts any Rozuma decision until at least end of 2022 at the earliest. Galp has taken any Rozuma Phase 1 capex out of their new capex plans thru 2025 and will have to take out projects in their capex plan if Rozuma does come back to work. This puts Rozuma more likely 2028 at the earliest as opposed to before the original expectations of before 2025. Pre-pandemic, Exxon's March 6, 2019 Investor Day noted their operated Mozambique Rovuma LNG Phase 1 was to be 2 trains each with 1.0 bcf/d capacity for total initial capacity of 2.0 bf/d with FID expected in 2019 and first LNG deliveries sometime before 2025. LNG forecasts had been assuming Exxon Rozuma would be onstream around 2025. The 2019 FID expectation was later pushed to be expected just before the March 2020 investor day. But the pandemic hit, and on March 21, 2020, we tweeted [LINK] on the Reuters story "*Exclusive: Coronavirus, gas slump put brakes on Exxon's giant Mozambique LNG plan*" [LINK] that noted Exxon was expected to delay the Rovuma FID. There was no timeline, but now, any FID is not expected until late 2022 at the earliest, that would push first LNG likely to at least 2028. What this means is that the Mozambique LNG delays are not 1.7 bcf/d but 5.0 bcf/d of projects that were in all, if not most, LNG supply forecasts. There is much more in our 7-pg blog. But Mozambique is what is driving a much bigger and sooner LNG supply gap starting ~2025 and stronger outlook for LNG prices

<u>One of the reasons why it went under the radar is that major LNG suppliers played stupid on the Mozambique impact.</u> It makes it harder for markets to see a big deal when the major LNG suppliers weren't making a big deal of Mozambique or playing stupid in the case of Cheniere in their May 4 Q1 call. In our May 9, 2021 Energy Tidbits memo, we said we had to chuckle when we saw Cheniere's response in the Q&A to its Q1 call on May 4 that they only know what we know from reading the Total releases on Mozambique and its impact on LNG markets. It's why we tweeted [LINK] "*Hmm! $LNG says only know what we read on #LNG market impact from $TOT $XOM MZ LNG delays*. *Surely #TohokuElectric & other offtake buyers are reaching out to #Cheniere. MZ LNG delays is a game changer to LNG in 2020s, see SAF Group blog. Thx @olympe_mattei @TheTerminal #NatGas".* How could they not be talking to LNG buyers for Total and /or Exxon Mozambique LNG projects. In the Q1 Q&A, mgmt was asked about Mozambique and didn't know any more than what you or I have read. Surely, they were speaking to Asian LNG buyers who had planned to get LNG supply from Total Mozambique or Exxon Rozuma Mozambique or both. Mgmt is asked "*wanted to just kind of touch on the color use talking about for these supply curve. And are you able to kind of provide any thoughts on the Mozambique and a deferral with the project of that size on 13 and TPA being deferred by we see you have you noticed any impact to the market has is there any impact for stage 3 with that capacity? Thanks*." Mgmt replies "*No. Look, I only know about the Mozambique delay with what I read as well as what you read that from total and an Exxon. And it's a sad situation and I hope everybody is safe and healthy that were there to experience that unrest but no I don't think it's, again it's a different business paradigm than what we offer. So, we offer a full value product, the customer doesn't have to invest in equity, customer doesn't have to worry about the E&P side of the business because, we've been able to both the by at our peak almost 7 Dee's a day of US NAT gas from almost a 100 different producers on 26 different pipelines and deliver it to our to facilities. So we take care of a lot of what the customer needs".*

<u>There are other LNG supply delays/interruptions beyond Mozambique.</u> There have been a number of other smaller LNG delay or existing supply interruptions that add to Asian LNG buyers feeling less secure about the reliability of mid to long term LNG supply. Here are just a few examples. (i) Total Papua LNG 0.74 bcf/d. On June 8, we tweeted [LINK] *"Timing update Papua #LNG project. $OSH June 8 update "2022 FEED, 2023 FID targeting 2027 first gas". $TOT May 5 update didn't forecast 1st gas date. Papua is 2 trains w/ total capacity 0.74 bcf/d."* We followed the tweet saying [LINK] *"Bigger #LNG supply gap being created >2025. Papua #LNG originally expected FID in 2020 so 1st LNG is 2 years delayed.*

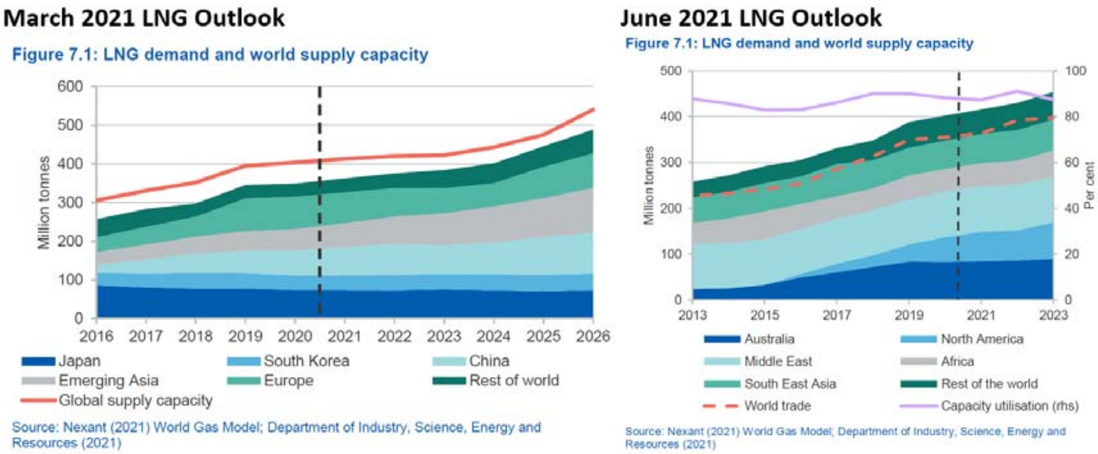
Common theme - new LNG supply is being delayed ie. [Total] Mozambique. Don't forget need capacity>demand due to normal maintenance, etc. Positive for LNG." (ii) Chevron's Gorgon. A big LNG story in H2/20 was the emergence of weld quality issues in the propane heat exchangers at Train 2, which required additional downtime for repair. Train 2 was shut on May 23 with an original restart of July 11, but the repairs to the weld quality issues meant it didn't restart until late Nov. The same issue was found in Train 1 but repairs were completed. However extended downtime for the trains led to lower LNG volumes. Gorgon produced ~2.3 bcf/d in 2019 but was down to 2.0 bcf/d in 2020. (iii) Equinor's Melkoeya 0.63 bcf/d shut down for 18 months due to a fire. A massive fire led to the Sept 28, 2020 shutdown of the 0.63 bcf/d Melkoeya LNG facility in Norway. On April 26, Equinor released "*Revised start-up date for Hammerfest LNG*" [LINK] with regard to the 0.63 bcf/d Melkoeya LNG facility. The original restart date was Oct 1, 2021 (ie. a 12 month shut down), but Equinor said "*Due to the comprehensive scope of work and Covid-19 restrictions, the revised estimated start-up date is set to 31 March 2022*". When we read the release, it seemed like Equinor was almost setting the stage for another potential delay in the restart date. Equinor had two qualifiers to this March 31, 2022 restart date. Equinor said "*there is still some uncertainty related to the scope of the work*" and "*Operational measures to handle the Covid-19 situation have affected the follow-up progress after the fire. The project for planning and carrying out repairs of the Hammerfest LNG plant must always comply with applicable guidelines for handling the infection situation in society. The project has already introduced several measures that allow us to have fewer workers on site at the same time than previously expected. There is still uncertainty related to how the Covid-19 development will impact the project progress."*

<u>Cheniere stopped the game playing the game on June 30</u>. Our July 4, 2021 Energy Tidbits memo noted that it looks like Cheniere has stopped playing stupid with respect to the strengthening LNG market in 2021. We can't believe they thought they were fooling anyone, especially their competitors. Bu that week, they came out talking about how commercial discussions have picked up in 2021 and it's boosted their hope for a Texas (Corpus Christi) LNG expansion. On Wednesday, Platts reported "*Pickup in commercial talks boosts Cheniere's hopes on mid-scale LNG project*" [LINK] Platts wrote "*Cheniere Energy expects to make a "substantial dent" by the end of 2022 in building sufficient buyer support for a proposed mid-scale expansion at the site of its Texas liquefaction facility, Chief Commercial Officer Anatol Feygin said June 30 in an interview." " As a result, he said, " The commercial engagement, I think it is very fair to say, has really picked up steam, and we are quite optimistic over the coming 12-18 months to make a substantial dent in that Stage 3 commercialization."* Platts also reported that Cheniere noted this has been a tightening market all year (ie would have been known by the May 4 Q1 call). Platts wrote "*We obviously find ourselves at the beginning of this year and throughout in a very tight market where prices today into Asia and into Europe are at levels that we frankly haven't seen in a decade-plus," Feygin said. "We've surpassed the economics that the industry saw post the Fukushima tragedy in March 2011, and that's happened in the shoulder period."* It's a public stance as to a more bullish LNG outlook

<u>But we still see major LNG suppliers like Australia hinting but not outright saying that LNG supply gap is coming sooner.</u> We have to believe Australia will be unveiling a sooner LNG supply gap in their September forecast. On June 28, we tweeted [LINK] on Australia's Resources and Energy Quarterly released on Monday [LINK] because there was a major change to their LNG outlook versus their March forecast. We tweeted "*#LNGSupplyGap. AU June fcast now sees #LNG mkt tighten post 2023 vs Mar fcast excess supply thru 2026. Why? $TOT Mozambique delays. See below SAF Apr 28 blog. Means brownfield LNG FID needed ie. like #LNGCanada Phase 2. #OOTT #NatGas".* Australia no longer sees supply exceeding demand thru 2026. In their March forecast, Australia said "*Nonetheless, given the large scale expansion of global LNG capacity in recent years, demand is expected to remain short of total supply throughout the projection period."* Note this is thru 2026 ie. a LNG supply surplus thru 2026. But on June 28, Australia changed that LNG outlook and now says the LNG market may tighten beyond 2023. Interestingly, the June forecast only goes to 2023 and not to 2026 as in March. Hmmm! On Monday, they said "*Given the large scale expansion of global LNG capacity in recent years, import demand is expected to remain short of export capacity throughout the outlook period. Beyond 2023, the global LNG market may tighten, due to the April 2021 decision to indefinitely suspend the Mozambique LNG project, in response to rising security issues. This project has an annual nameplate capacity of 13 million tonnes, and was previously expected to start exporting LNG in 2024*." 13 million tonnes is 1.7 bcf/d so they are only referring to Total Mozambique LNG Phase 1. So no surprise the change is Mozambique LNG driven but we have to believe the reason why they cut their forecast off this time at 2023 is that they are looking at trying to figure out what to forecast beyond 2023 in addition to Total Phase 1. And, importantly, we believe they will be changing their LNG forecast for more than Mozambique ie. India

demand that we highlight later in the blog. They didn't say anything else specific on Mozambique but, surely they have to also be delaying the follow on Total Phase 2 of 1.3 bcf/d and Exxon Rozuma Phase 1 of 2.0 bcf/d.

Australia's LNG Outlook: March 2021 vs June 2021 Forecasts

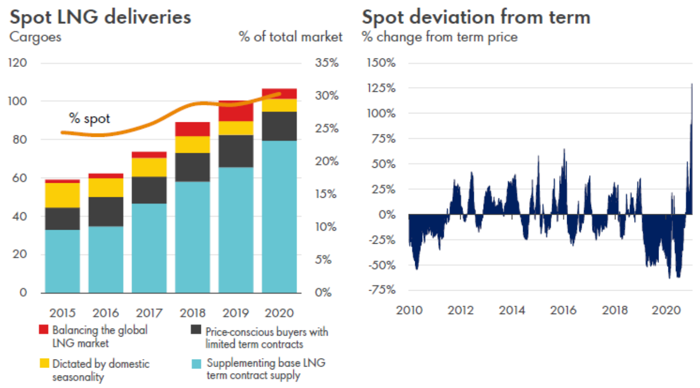


Source: Australia Resources and Energy Quarterly

<u>Clearly Asian LNG buyers did the math, saw the new LNG supply gap and were working the phones in March/April/May trying to lock up long term supply.</u> We wrote extensively on the Total Mozambique LNG situation before the April 26 force majeure as it was obvious that delays were coming to a project counted on for first LNG in 2024. Total had shut down Phase 1 development in December for 3 months due to the violence and security risks. It restarted development on Wed March 24, violence/attacks immediately resumed for 3 consecutive days, and then Total suspended development on Sat March 27. That's why no one should have been surprised by the April 26 force majeure. Asian LNG buyers were also seeing this and could easily do the same math we were doing and saw a bigger and sooner LNG supply gap. They were clearly working the phones with a new priority to lock up long term LNG supply. Major long term deals don't happen overnight, so it makes sense that we started to see these new Asian long term LNG deals start at the end of June.

<u>A big pivot from trying to renegotiate down long term LNG deals or being happy to let long term contracts expire and replace with spot/short term LNG deals</u>. This is a major pivot or abrupt turn on the Asian LNG buyers contracting strategy for the 2020s. There is the natural reduction of long term contracts as contracts reach their term. But with the weakness in LNG prices in 2019 and 2020, Asian LNG buyers weren't trying to extend long term contracts, rather, the push was to try to renegotiate down its long term LNG deals. The reason was clear, as spot prices for LNG were way less than long term contract prices. And this led to their LNG contracting strategy – move to increase the proportion of spot LNG deliveries out of total LNG deliveries. Shell's LNG Outlook 2021 was on Feb 25, 2021 and included the below graphs. The spot LNG price derivation from long term prices in 2019 and 2020 made sense for Asian LNG buyers to try to change their contract mix. Yesterday, Maeil Business News Korea reported on the new Qatar/Kogas long term LNG deal with its report "*Korea may face LNG supply cliff or pay hefty price after long-term supplies run out*" [LINK], which highlighted this very concept – Korea wasn't worried about trying to extend expiring long term LNG contracts. Maeil wrote "*Seoul in 2019 secured a long-term LNG supply contract with the U.S. for annual 15.8 million tons over a 15-year period. But even with the latest two LNG supply contracts, the Korean government needs extra 6 million tons or more of LNG supplies to keep up the current power pipeline. By 2024, Korea's long-term supply contracts for 9 million tons of LNG will expire - 4.92 million tons on contract with Qatar and 4.06 million tons from Oman, according to a government official who asked to be unnamed."*

Spot LNG deliveries and Spot deviation from term price



Source: Shell LNG Outlook 2021 on Feb 25, 2021

<u>Asian LNG buyers moving to long term LNG deals provide financing capacity for brownfield LNG FIDs</u>. We believe this abrupt change and return to long term LNG deals is even more important to LNG suppliers who want to FID new projects. The big LNG players like Shell can FID new LNG supply without new long term contracts as they can build into their supply options to fill their portfolio of LNG contracts. But that doesn't mean the big players don't want long term LNG supply deals, as having long term LNG contracts provide better financing capacity for any LNG supplier. It takes big capex for LNG supply and long term deals make the financing easier.

<u>Four Asian buyer long term LNG deals in the last week.</u> It was pretty hard to miss a busy week for reports of new Asian LNG buyer long term LNG deals. There were two deals from Qatar Petroleum, one from Petronas and one from BP. The timing fits, it's about 3 months after Total Mozambique LNG problems became crystal clear. And as noted later, there are indicators that more Asian buyer LNG deals are coming.

> <u>Petronas/CNOOC is 10 yr supply deal for 0.3 bcf/d.</u> On July 7, we tweeted [LINK] on the confirmation of a big positive to Cdn natural gas with the Petronas announcement [LINK] of a new 10 year LNG supply deal for 0.3 bcf/d with China's CNOOC. The deal also has special significance to Canada. (i) Petronas said "*This long-term supply agreement also includes supply from LNG Canada when the facility commences its operations by middle of the decade*". This is a reminder of the big positive to Cdn natural gas in the next 3 to 4 years – the start up of LNG Canada Phase 1 is ~1.8 bcf/d capacity. This is natural gas that will no longer be moving south to the US or east to eastern Canada, instead it will be going to Asia. This will provide a benefit for all Western Canada natural gas. (ii) First ever AECO linked LNG deal. It's a pretty significant event for a long term Asia LNG deal to now have an AECO link. Petronas wrote "*The deal is for 2.2 million tonnes per annum (MTPA) for a 10-year period, indexed to a combination of the Brent and Alberta Energy Company (AECO) indices. The term deal between PETRONAS and CNOOC is valued at approximately USD 7 billion over ten years.*" 2.2 MTPA is 0.3 bcf/d. (iii) Reminds of LNG Canada's competitive advantage for low greenhouse gas emissions. Petronas said "*Once ready for operations, the LNG Canada project paves the way for PETRONAS to supply low greenhouse gas (GHG) emission LNG to the key demand markets in Asia.*"
>
> <u>Qatar Petroleum/CPC (Taiwan) is 15 yr supply deal for 0.16 bcf/d.</u> Pre Covid, Qatar was getting pressured to renegotiate lower its long term LNG contract prices. Now, it's signing a 15 year deal. On July 9, they entered in a new small long term LNG sales deal [LINK], a 15-yr LNG Sale and Purchase Agreement with CPC Corporation in Taiwan to supply it ~0.60 bcf/d of LNG. LNG deliveries are set to begin in January 2022. H.E. Minister for Energy Affairs & CEO of Qatar Petroleum Al-Kaabi said *"We are pleased to enter into this long term LNG SPA, which is another milestone in our relationship with CPC, which dates back to almost three decades. We look forward to commencing deliveries under this SPA and to continuing our supplies as a trusted and reliable global LNG provider."* The pricing was reported to be vs a basket of crudes.

BP/Guangzhou Gas, a 12-yr supply deal for 0.13 bcf/d. On July 9, there was a small long term LNG supply deal with BP and Guangzhou Gas (China). Argus reported [LINK] BP had signed a 12 year LNG supply deal with Guangzhou Gas (GG), a Chinese city's gas distributor, which starts in 2022. The contract prices are to be linked to an index of international crude prices. Although GG typically gets its LNG from the spot market, it used a tender in late April for ~0.13 bcf/d starting in 2022. BP's announcement looks to be for most of the tender, so it's a small deal. But it fit into the trend this week of seeing long term LNG supply deals to Asia. This was intended to secure deliveries to the firm's Xiaohudao import terminal which will become operational in August 2022.

Qatar/Korea Gas is a 20-yr deal to supply 0.25 bcf/d. On Monday, Reuters reported [LINK] "*South Korea's energy ministry said on Monday it had signed a 20-year liquefied natural gas (LNG) supply agreement with Qatar for the next 20 years starting in 2025. South Korea's state-run Korea Gas Corp (036460.KS) will buy 2 million tonnes of LNG annually from Qatar Petroleum".* There was no disclosure of pricing.

More Asian buyer long term LNG deals (ie. India) will be coming. There are going to be more Asian buyer long term LNG deals coming soon. Our July 11, 2021 Energy Tidbits highlighted how India's new petroleum minister Hardeep Singh Puri (appointed July 8) hit the ground running with what looks to be a priority to set the stage for more India long term LNG deals with Qatar. On July 10, we retweeted [LINK] "*New India Petroleum Minister hits ground running. What else w/ Qatar but #LNG. Must be #Puri setting stage for long term LNG supply deal(s). Fits sea change of buyers seeing #LNGSupplyGap (see SAF Apr 28 blog http://safgroup.ca) & wanting to tie up LNG supply. #OOTT".* It's hard to see any other conclusion after seeing what we call a sea change in LNG buyer mentality with a number of long term LNG deals this week. Puri tweeted [LINK] "*Discussed ways of further strengthening mutual cooperation between our two countries in the hydrocarbon sector during a warm courtesy call with Qatar's Minister of State for Energy Affairs who is also the President & CEO of @qatarpetroleum HE Saad Sherida Al-Kaabi".* As noted above, we believe there is a sea change in LNG markets that was driven by the delay in 5 bcf/d of LNG supply from Mozambique (Total Phase 1 & Phase 2, and Exxon Rozuma Phase 1) that was counted on all LNG supply projections for the 2020s. Puri's tweet seems to be him setting the stage for India long term LNG supply deals with Qatar.

Supermajors are aggressively competing to commit 30+ year capital to Qatar's LNG expansion despite stated goal to reduce fossil fuels production. It's not just Asian LNG buyers who are now once again committing long term capital to securing LNG supply, it's also supermajors all bidding to be able to commit big capex to part of Qatar Petroleum's 4.3 bcf/d LNG expansion. Qatar Petroleum received a lot of headlines following the their June 23 announcement on its LNG expansion [LINK] on how they received bids for double the equity being offered. And there were multiple reports that these are on much tougher terms for Qatar's partners. Qatar Petroleum CEO Saad Sherida Al-Kaabi specifically noted that, among the bidders, were Shell, Total and Exxon. Shell and Total have two of the most ambitious plans to reduce fossil fuels production in the 2020's, yet are competing to allocate long term capital to increase fossil fuels production. And Shell and Total are also two of the global LNG supply leaders. It has to be because they are seeing a bigger and sooner LNG supply gap.

Remember Qatar's has a massive expansion but India alone needs 3x the Qatar expansion LNG capacity. In addition to the competition to be Qatar Petroleum's partners, we remind that, while this is a massive 4.3 bcf/d LNG expansion, India alone sees its LNG import growing by ~13 bcf/d to 2030. The Qatar announcement reminded they see a LNG supply gap and continued high LNG prices. We had a 3 part tweet. (i) First, we highlighted [LINK] "*1/3. #LNGSupplyGap coming. big support for @qatarpetroleum expansion to add 4.3 bcf/d LNG. but also say "there is a lack of investments that could cause a significant shortage in gas between 2025-2030" #NatGas #LNG".* This is after QPC accounts for their big LNG expansion. The QPC release said "*However, His Excellency Al-Kaabi voiced concern that during the global discussion on energy transition, there is a lack of investment in oil and gas projects, which could drive energy prices higher by stating that "while gas and LNG are important for the energy transition, there is a lack of investments that could cause a significant shortage in gas between 2025-2030, which in turn could cause a spike in the gas market."* (ii) Second, this is a big 4.3 bcf/d expansion, but India alone has 3x the increase in LNG import demand. We tweeted [LINK] "*2/3. Adding 4.3 bcf/d is big, but dwarfed by items like India. #Petronet gave 1st specific forecast for what it means if #NatGas is to be 15%*

of energy mix by 2030 - India will need to increase #LNG imports by ~13 bcf/d. See SAF Group June 20 Energy Tidbits memo." (iii) Third, Qatar's supply gap warning is driven by the lack of investments in LNG supply. We agree, but note that the lack of investment is in great part due to the delays in both projects under construction and in FIDs that were supposed to be done in 2019. We tweeted [LINK] "3*/3. #LNGSupplyGap is delay driven. $TOT Mozambique Phase 1 delay has chain effect, backs up 5 bcf/d. See SAF Group Apr 28 blog Multiple Brownfield LNG FIDs Now Needed To Fill New #LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2? #NatGas*."

Seems like many missed India's first specific LNG forecast to 2030. Our June 20, 2021 Energy Tidbits memo highlighted the first India forecast that we have seen to estimate the required growth in natural gas consumption and LNG imports if India is to meet its target for natural gas to be 15% of its energy mix by 2030. India will need to increase LNG imports by ~13 bcf/d or 3 times the size of the Qatar LNG expansion. Our June 6, 2021 Energy Tidbits noted the June 4 tweet from India's Energy Minister Dharmendra Pradhan [LINK] reinforcing the 15% goal "*We are rapidly deploying natural gas in our energy mix with the aim to increase the share of natural gas from the current 6% to 15% by 2030."* But last week, Petronet CEO AK Singh gave a specific forecast. Reuters report "*LNG's share of Indian gas demand to rise to 70% by 2030: Petronet CEO"* [LINK] included Petronet's forecast if India is to hit its target for natural gas to be 15% of energy mix by 2030. Singh forecasts India's natural gas consumption would increase from current 5.5 bcf/d to 22.6 bcf/d in 2030. And LNG shares would increase from 50% to 70% of natural gas consumption ie. an increase in LNG imports of ~13 bcf/d from just under 3 bcf/d to 15.8 bcf/d in 2030. Singh did not specifically note his assumption for India's natural gas production, but we can back into the assumption that India natural gas production grows from just under 3 bcf/d to 6.8 bcf/d. It was good to finally see India come out with a specific forecast for 2030 natural gas consumption and LNG imports if India is to get natural gas to 15% of its energy mix in 2030. Petronet's Singh forecasts India natural gas consumption to increase from 5.5 bcf/d to 22.6 bcf/d in 2030. This forecast is pretty close to our forecast in our Oct 23, 2019 blog "*Finally, Some Visibility That India Is Moving Towards Its Target For Natural Gas To Be 15% Of Its Energy Mix By 2030*". Here part of what we wrote in Oct 2019. "*It's taken a year longer than we expected, but we are finally getting visibility that India is taking significant steps towards India's goal to have natural gas be 15% of its energy mix by 2030. On Wednesday, we posted a SAF blog* [LINK] *"Finally, Some Visibility That India Is Moving Towards Its Target For Natural Gas To Be 15% Of Its Energy Mix By 2030".* Our 2019 blog estimate was for India natural gas demand to be 24.0 bcf/d in 2030 (vs Singh's 22.6 bcf/d) and for LNG import growth of +18.4 bcf/d to 2030 (vs Singh's +13 bcf/d). The difference in LNG would be due to our Oct 2019 forecast higher natural gas consumption by 1.4 bcf/d plus Singh forecasting India natural gas production +4 bcf/d to 2030. Note India production peaked at 4.6 bcf/d in 2010.

Bigger, nearer LNG supply gap + Asian buyers moving to long term LNG deals = LNG players forced to at least look at what brownfield LNG projects they could advance and move to FID. All we have seen since our April 28 blog is more validation of the bigger, nearer LNG supply gap. And now market participants (Asian LNG buyers) are reacting to the new data by locking up long term supply. Cheniere noted how the pickup in commercial engagement means they "*are quite optimistic over the coming 12-18 months to make a substantial dent in that Stage 3 commercialization."* Cheniere can't be the only LNG supplier having new commercial discussions. It's why we believe the Mozambique delays + Asian LNG buyers moving to long term deals will effectively force major LNG players to look to see if there are brownfield LNG projects they should look to advance. Prior to March/April, no one would think Shell or other major LNG players would be considering any new LNG FIDs in 2021. Covid forced all the big companies into capital reduction mode and debt reduction mode. But Brent oil is now solidly over $70, and LNG prices are over $13 this summer and the world's economic and oil and gas demand outlook are increasing with vaccinations. And we are starting to see companies move to increasing capex with the higher cash flows. The theme in Q3 reporting is going to be record or near record oil and gas cash flows, reduced debt levels and increasing returns to shareholders. And unless new mutations prevent vaccinations from returning the world to normal, we suspect that major LNG players, like other oil and gas companies, will be looking to increase capex as they approve 2022 budgets. The outlook for the future has changed dramatically in the last 8 months. The question facing major LNG players like Shell is should they look to FID new LNG brownfield projects in the face of an increasing LNG supply gap that is going to hit faster and harder and Asian LNG buyers prepared to do long term deals. We expect these decisions to be looked at before the end of 2021 for 2022 capex budget/releases. One wildcard that could force these decisions sooner is the already stressed out global supply chain. We have to believe that discussion there will be pressure for more Asian LNG buyer long term deals sooner than later.

For Canada, does the increasing LNG supply gap provide the opportunity to at least consider a LNG Canada Phase 2 FID over the next 6 months? Our view on Shell and other LNG players is unchanged since our April 28 blog. Shell is no different than any other major LNG supplier in always knowing the market and that the oil and gas outlook is much stronger than 9 months ago. Even 3 months post our April 28 blog, we haven't heard any significant talks on how major LNG players will be looking at FID for new brownfield LNG projects. We don't have any inside contacts at Shell or LNG Canada, but that is no different than when we looked at the LNG markets in September 2017 and saw the potential for Shell to FID LNG Canada in 2018. We posted a September 20, 2017 blog *"China's Plan To Increase Natural Gas To 10% Of Its Energy Mix Is A Global Game Changer Including For BC LNG"* [LINK]. Last time, it was a demand driven supply gap, this time, it's a supply driven supply gap. We have to believe any major LNG player, including Shell, will be at least looking at their brownfield LNG project list and seeing if they should look to advance FID later in 2021. Shell has LNG Canada Phase 2, which would add 2 additional trains or approx. 1.8 bcf/d. And an advantage to an FID would be that Shell would be able to commit to its existing contractors and fabricators for a continuous construction cycle following on LNG Canada Phase 1 ie. to help keep a lid on capital costs. We believe maintaining a continuous construction cycle is even more important given the stressed global supply chain. No one is talking about the need for these new brownfield LNG projects, but, unless some major change in views happen, we believe its inevitable that these brownfield LNG FID internal discussions will be happening in H2/21. Especially since the oil and gas price outlook is much stronger than it was in the fall and companies will be looking to increase capex in 2022 budgets.

A LNG Canada Phase 2 would be a big plus to Cdn natural gas. LNG Canada Phase 1 is a material natural gas development as its 1.8 bcf/d capacity represents approx. 20 to 25% of Cdn gas export volumes to the US. The EIA data shows US pipeline imports of Cdn natural gas as 6.83 bcf/d in 2020, 7.36 bcf/d in 2019, 7.70 bcf/d in 2018, 8.89 bcf/d in 2017, 7.97 bcf/d in 2016, 7.19 bcf/d in 2015 and 7.22 bcf/d in 2014. A LNG Canada Phase 2 FID would be a huge plus for Cdn natural gas. It would allow another ~1.8 bcf/d of Cdn natural gas to be priced against pricing points other than Henry Hub. And it would provide demand offset versus Trudeau if he moves to make electricity "emissions free" and not his prior "net zero emissions". Mozambique has been a game changer to LNG outlook creating a bigger and sooner LNG supply gap. And with a stronger tone to oil and natural gas prices in 2021, the LNG supply gap will at least provide the opportunity for Shell to consider FID for its brownfield LNG Canada Phase 2 and provide big support to Cdn natural gas for the back half of the 2020s. And perhaps if LNG Canada is exporting 3.6 bcf/d from two phases, it could help flip Cdn natural gas to a premium vs US natural gas especially if Biden is successful in reducing US domestic natural gas consumption for electricity. The next six months will be very interesting to watch for LNG markets and Cdn natural gas valuations. Imagine the future value of Cdn natural gas is there was visibility for 3.6 bcf/d of Western Canada natural gas to be exported to Asia.

For Immediate Release
December 21, 2023
Lynn Helms, Ph.D., Director ND Department of Mineral Resources

NORTH Dakota | Mineral Resources
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North Dakota Department of Mineral Resources December Director's Cut and October 2023 Production Numbers

Oil Production Numbers

September	38,401,553 barrels	= 1,280,052 barrels/day (final) **RF +16%**
New Mexico	**53,819,895 barrels**	= **1,793,997** **+1.5%**
October	38,590,557 barrels	= 1,244,857 barrels/day **-3.7%** **RF +13%**
	1,519,037	all-time high Nov 2019
	1,213,491 barrels/day	= 97% from Bakken and Three Forks
	31,366 barrels/day	= 3% from Legacy Pools

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

Crude Price ($barrel)	ND Light Sweet	WTI	ND Market	
September	83.07	89.43	84.36	**RF +21%**
October	79.91	85.64	80.17	**RF +15%**
Today	62.75	74.22	68.49 est	**RF -2%**
All-time high (6/2008)	125.62	134.02	126.75	
Revenue Forecast			**70.00**	

Gas Production and Capture

September	103,273,326 MCF	=	3,442,444 MCF/Day	
95% Capture	97,759,182 MCF	=	3,258,639 MCF/Day	
October	105,478,494 MCF	=	3,402,532 MCF/Day	**-1%**
94% Capture	99,606,611 MCF	=	3,213,116 MCF/Day	

3,442,4444 MCF/day **NEW** all-time high production September 2023
3,258,639 MCF/day all-time high capture Sep 2023

Wells Permitted

September	59	
October	77	
November	51	All-time high 370 in 10/2012

Rig Count

September	33	
October	36	
November	36	
Today	37	All-time high 218 on 5/29/2012
Federal Surface	1	
New Mexico	105	

Waiting on Completions

September	367
October	353

Inactive

September	1,547
October	1,917

Completed

September	129
October	96 (Preliminary)
November	111 (Preliminary)

Producing

September	18,568	
October	18,619 (Preliminary)	**NEW** All-time high 18,619 October/2023
	16,411 wells	88% are now unconventional Bakken/Three Forks Wells
	2,208 wells	12% produced from legacy conventional pools

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

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

Fort Berthold Reservation Activity

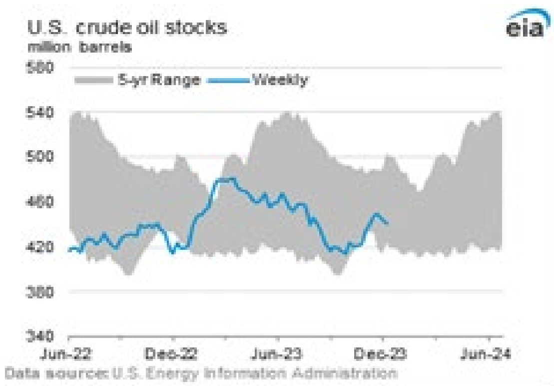
	Total	Fee Land	Trust Land
Oil Production (barrels/day)	136,864	55,573	81,291
Drilling Rigs	1	1	0
Active Wells	2,659	650	2,009
Waiting on Completion	21		
Approved Drilling Permits	170	42	128
Potential Future Wells	3,893	1,114	2,779

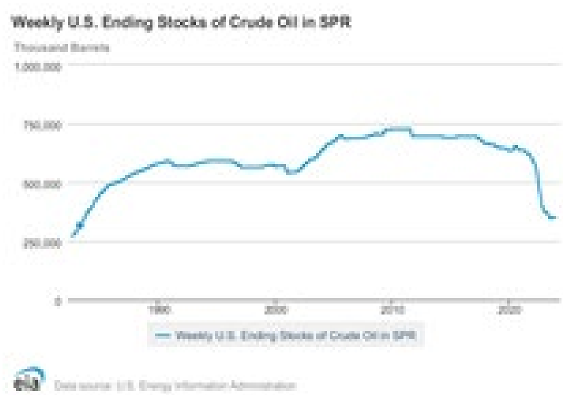
Comments:

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

There are 16 frac crews currently active.

Saudi Arabia and Russia announced continued oil production cuts amounting to 4.7 million bpd until the end of the year. Middle East conflict, Russia sanctions, China economic activity, potential recessions, and shifting crude oil supply chains continue to create significant price volatility.





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

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

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

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

Seismic - 1 active, 1 recording, 0 NDIC reclamation projects, 0 remediating, 2 permitted, and 4 suspended surveys, 0 pending.

US natural gas storage is 8% above the five-year average. Both US and world crude oil inventories are below average and the US strategic petroleum reserve remains at the lowest level since 1983.

The price of natural gas delivered to Northern Border at Watford City has decreased to $1.99/MCF today. There is continued oversupply in the Midwest US. Current oil to gas price ratio is 34:1. The state-wide gas flared volume from September to October increased 5.6 MMCFD to 189 MMCF per day, the statewide gas capture decreased slightly to 94% while Bakken gas capture was unchanged 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	95%
FBIR Bakken	96%
Trust FBIR Bakken	96%
Fee FBIR	94%
Bicentennial	51%
Assiniboine	49%
Baskin	47%
Dimond	47%
Bar Butte	44%
Buford	42%
Forthun	24%
Black Slough	18%
Lone Butte	16%
Covered Bridge	0%

The Commission established the following gas capture goals:

74%	October 1, 2014 - December 31, 2014
77%	January 1, 2015 - March 31, 2016
80%	April 1, 2016 - October 31, 2016
85%	November 1, 2016 - October 31, 2018
88%	November 1, 2018 - October 31, 2020
91%	Beginning November 1, 2020

BLM On 1/27/21 President Biden issued an executive order that mandates a "pause" on new oil and gas leasing on federal lands, onshore and offshore, "to the extent consistent with applicable law," while a comprehensive review of oil and gas permitting and leasing is conducted by the Interior Department. There is no time limit on the review, which means the president's moratorium on new leasing is indefinite. The order does not restrict energy activities on lands the government holds in trust for Native American tribes.

On 7/7/21 North Dakota sued the Department of Interior (DOI), Secretary of Interior Debra Haaland, Bureau of Land Management (BLM), Director of the BLM Nada Culver, and Director of the Montana-Dakotas BLM John Mehlhoff in US District Court for the District of North Dakota. The lawsuit requested the court:

Compel the Federal Defendants to hold quarterly lease sales. Oral arguments were presented 1/12/22 in Bismarck.

SAF Group created transcript of comments by North Dakota Director of Mineral Resources, Lynn Helms, and Director North Dakota Pipeline Authority, Justin J. Kringstad, on The Directors Cut to discuss the December 2023 Directors Cut https://www.dmr.nd.gov/dmr/oilgas/directorscut on December 19, 2023

Items in "italics" are SAF Group created transcript.

At 1:00 min mark, on looking forward to Nov and Dec oil production, Helms *"… we should see better numbers in November and, with the weather we've been having in December, we should see great numbers*".

At 2:50 min mark, Helms "*The really big thing is the number of wells completed. We have well over a thousand wells completed this year and you can see the most recent three months – 129, 96, 111. That's DUC wells. The DUC well inventory should be almost entirely depleted at this point. We met with the operator that had the vast majority of the DUCs, I think they had half of all of our DUC wells. And they're down to less than two dozen wells left in their DUC inventory. Those will all be completed over the winter and be on production by mid-year next year. So when you look on wells waiting on completion, we're down to 350 and that's just pretty much a standard inventory of well drilled using a multi-well batch process and waiting completion crews. Sixteen completion crews working so really steady work there*.

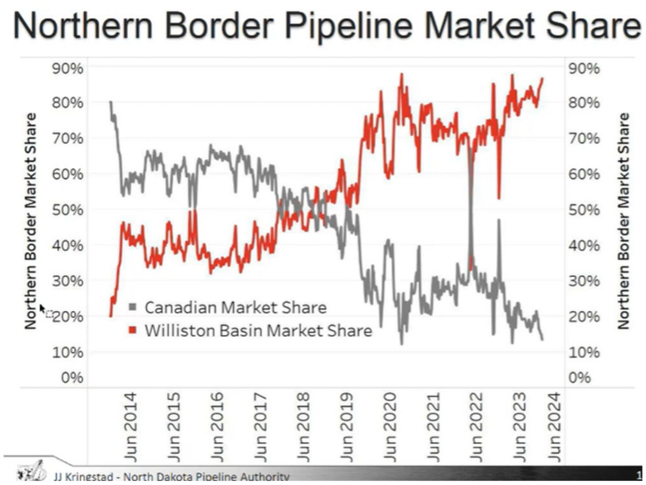
At 3:50 min mark, Helms, "*We saw a record number of wells actively producing, new record 18,619 wells and 88% of those are Bakken and Three Forks wells. You can really see the impact of the October weather in the inactive well count. It went from 1,547 in September to 1,917 in October. That was just the wells going offline due to that storm and the delay in getting them back on*."

At 9:04 min mark, Helms "*EPA released its final rule on standards of performance for new, reconstructed and modified source emissions, called the methane rule. The methane rule could have some pretty drastic impacts for the state of North Dakota. A little bit under 1,400 of our wells in those ten most wanted fields don't have gas sales. Two years from now, they would be subject to shut-in because they would not be able to continue with routine flaring. And about the same amount of wells, a few less, are our marginal wells and they would be subject to all the LDAR requirements of a brand new facility and so economically, that' going to reduce the numbers of wells that could be economically produced. So all in all, 2,800 jobs at risk. 57,000 bpd at risk. We're contemplating what the state of North Dakota should do in response to that.*"

At 12:00 min mark, Helms answers a question if the increase in production is primarily driven by DUC wells. Helms "*I don't know if I would say primarily but I would say close to 50% because the current rig count is only able to support probably in the neighborhood of 700 completions, well completions a year. And we have seen well over 1,000 already this year. We'll be at a solid 1,100, 1,200 so pretty close to 50% of the production increase is driven by completion of DUC wells. The rest is driven by drilling new wells and completing those. "*

At 12:50 min mark, Helms answer question on what they consider a normal number of DUC wells. Helms "*We think it right around that 350 number that drilling rigs are able to outpace frack crews. Frack crews typically can only work during the nicer months so we're going to see a big slowdown from 16 frack crews probably to under 10 as we go thru the winter months. But we've had very mild weather so they've continued. They batch drill these wells in batches of five and six. And so they're always ahead of the frack crews. We think around 350 is the normal number."*

At 23:40 min mark, Kringstad "*slide 19, now well over 80% market share on Northern Border for those volumes coming out of North Dakota and just over the lower teens for those Canadian market share. Again, we're watching this, very likely over the next six months or so but at least by next summer, going to be a very interesting situation with that gas on gas competition to remain viable, continue to move that gas onto the Northern Border system. Canadian producers maintain about 10% of the market share on that system, the remainder is held by marketing firms as wells as Bakken producers. So as you near or try to exceed that 90%, that's when I expect the competition between Bakken production and Canadian production to really intensify. And it appears we're trending that direction relatively quickly*".



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

MONTHLY UPDATE

DECEMBER 2023 PRODUCTION & TRANSPORTATION

Published: December 21, 2023
Justin J. Kringstad, Director
North Dakota Pipeline Authority
Office: 701.220.6227
www.northdakotapipelines.com

MONTHLY UPDATE

DECEMBER 2023 PRODUCTION & TRANSPORTATION

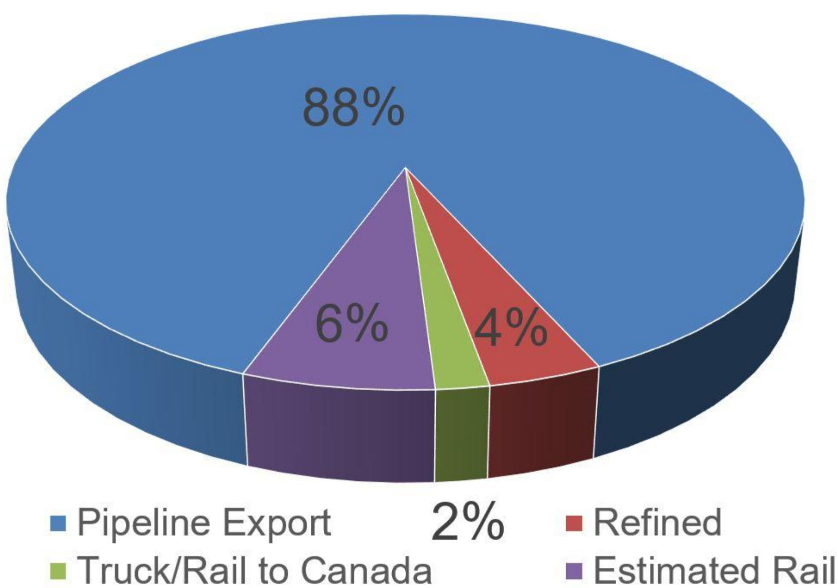
North Dakota Oil Production

Month	Monthly Total, BBL	Average, BOPD
Sep. 2023 - Final	38,401,553	1,280,052
Oct. 2023 - Prelim.	38,590,557	1,244,857

North Dakota Natural Gas Production

Month	Monthly Total, MCF	Average, MCFD
Sep. 2023 - Final	103,273,326	3,442,444
Oct. 2023 - Prelim.	105,478,494	3,402,532

Estimated Williston Basin Oil Transportation, Oct. 2023



CURRENT DRILLING ACTIVITY:

NORTH DAKOTA[1]

37 Rigs

EASTERN MONTANA[2]

1 Rigs

SOUTH DAKOTA[2]

0 Rigs

SOURCE (DEC 21, 2023):

1. ND Oil & Gas Division
2. Baker Hughes

PRICES:

Crude (WTI): $73.60

Crude (Brent): $79.04

NYMEX Gas: $2.58

SOURCE: BLOOMBERG (DEC 21, 2023 1:15PM EST)

GAS STATS*

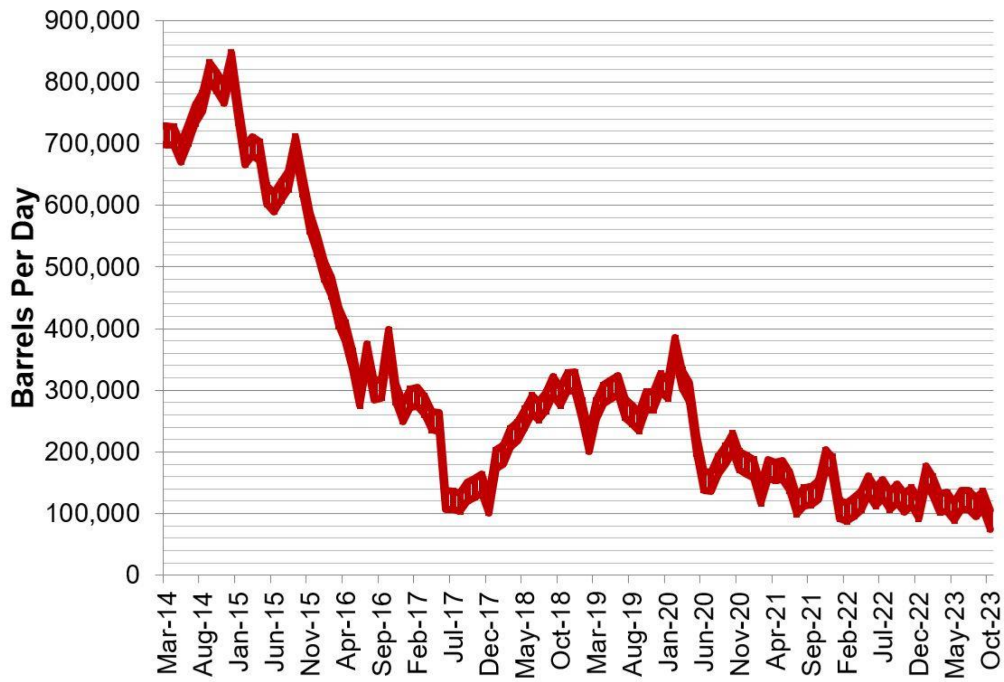
95% CAPTURED & SOLD

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

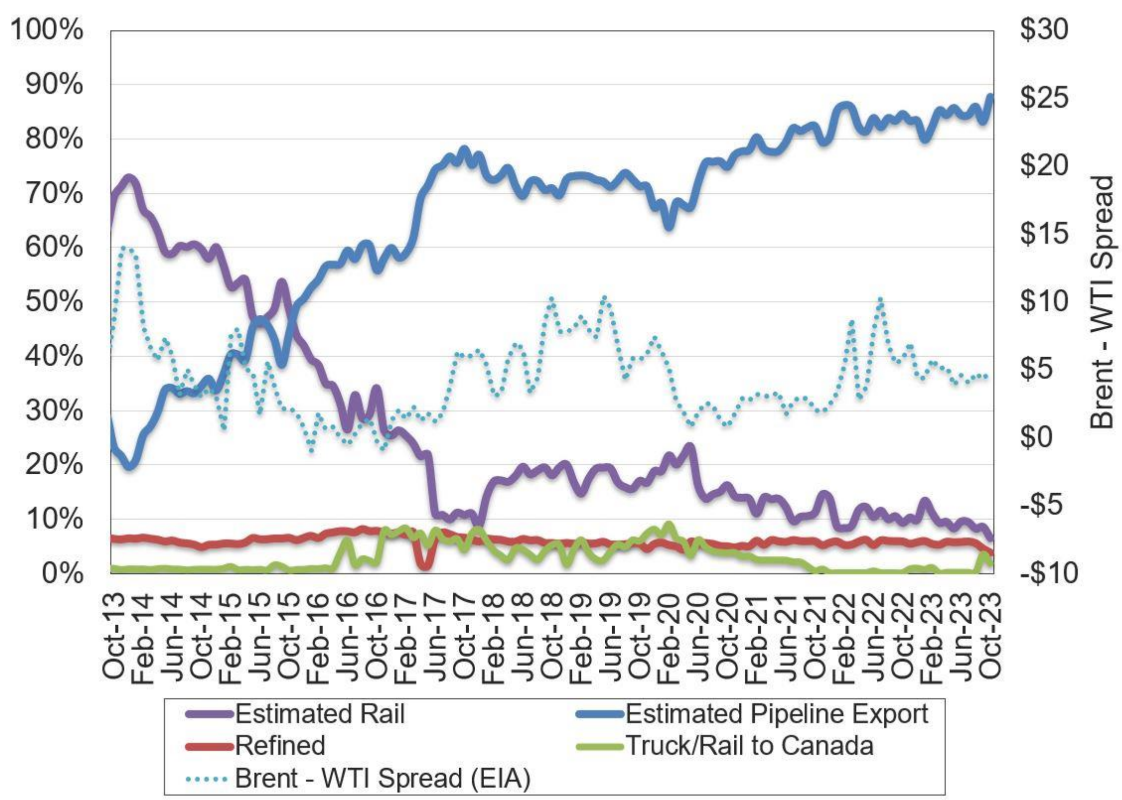
1% FLARED FROM WELL WITH ZERO SALES

OCT 2023 NON-CONF DATA

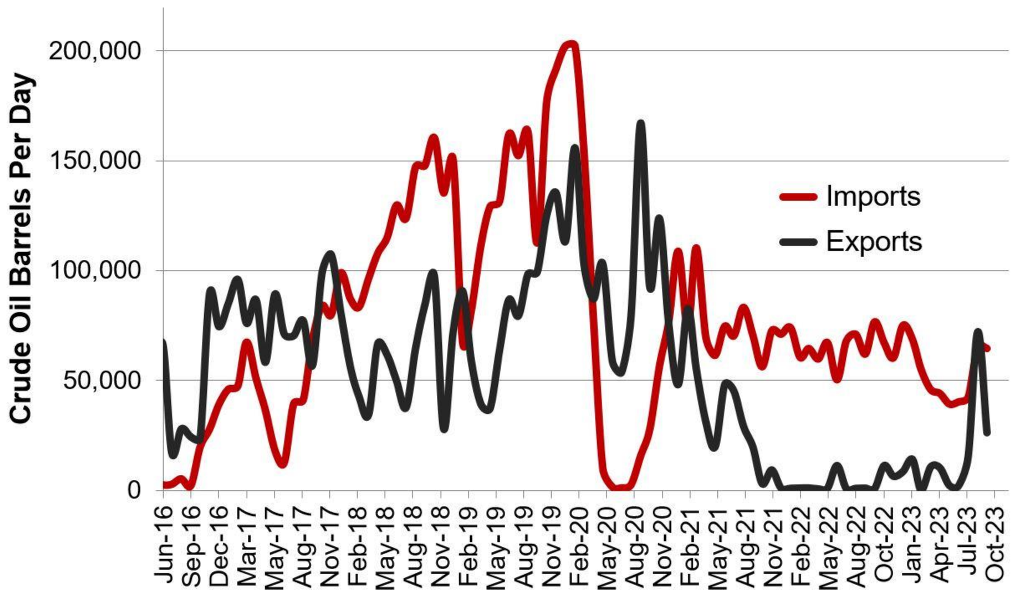
Estimated North Dakota Rail Export Volumes



Estimated Williston Basin Oil Transportation

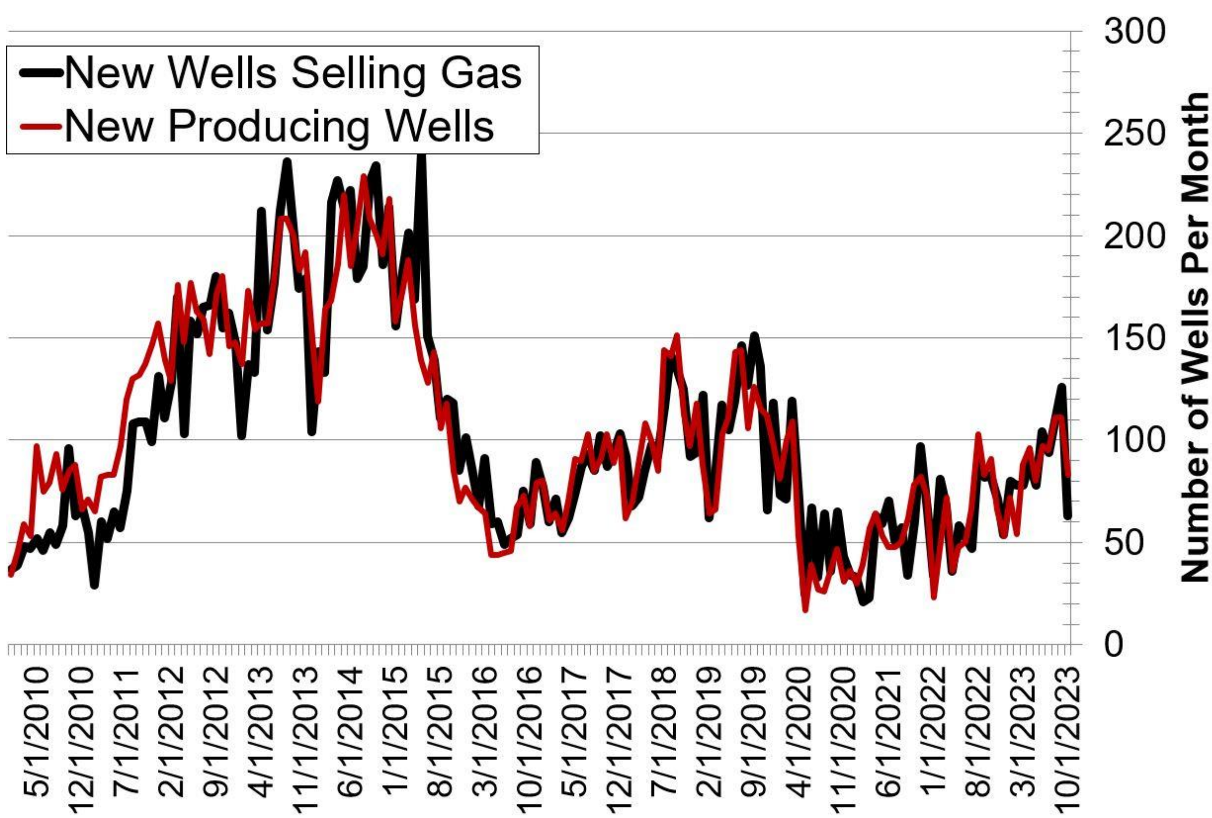


Williston Basin Truck/Rail Imports and Exports with Canada



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

New Gas Sales Wells per Month



US Williston Basin Oil Production, BOPD

2022

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

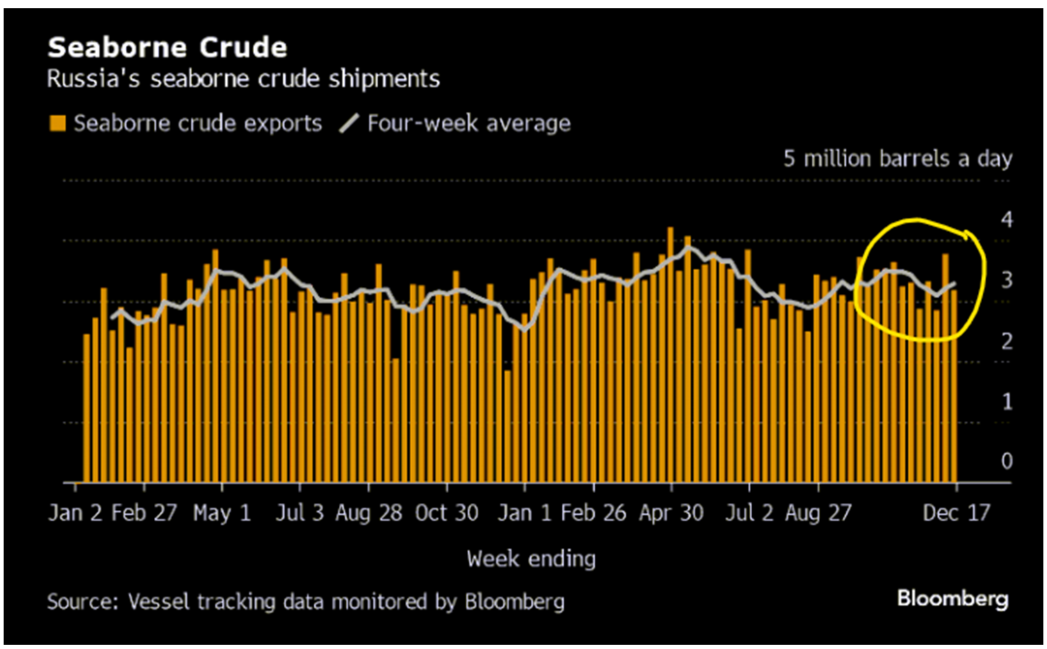
2023

MONTH	ND	EASTERN MT*	SD	TOTAL
January	1,062,880	62,110	2,610	1,127,600
February	1,159,036	63,553	2,475	1,225,064
March	1,124,897	64,593	2,652	1,192,142
April	1,135,840	61,926	2,557	1,200,323
May	1,135,761	61,258	2,560	1,199,579
June	1,168,269	59,612	2,274	1,230,155
July	1,181,513	56,845	2,310	1,240,668
August	1,223,617	61,999		
September	1,280,052	61,779		
October	1,244,857			
November				
December				

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

Russia’s Crude Flows Stay Strong Despite Baltic Port Stoppage
2023-12-19 12:28:35.997 GMT

By Julian Lee
(Bloomberg) -- Russia’s seaborne crude exports climbed again on a four-week average basis, despite a dip in weekly flows driven by a brief pause in shipments from the Baltic port of Primorsk.
About 3.28 million barrels a day of crude were shipped from Russian ports in the four weeks to Dec. 17, tanker-tracking data monitored by Bloomberg show. That was up by 80,000 barrels a day from the revised figure for the period to Dec. 10. The more volatile weekly average gave up about two-thirds of the previous week’s increase, with a four-day gap in loading schedules at Primorsk suggesting planned work affecting the port.
About 1.7 million barrels a day of Russia’s crude exports pass through the Red Sea, where merchant vessels are increasingly coming under attack from Houthi rebels in Yemen. Tankers carrying Moscow’s oil are unlikely to be targeted, but that doesn’t rule out the risk of a ship carrying Russian supplies being hit by mistake.



The figure for weekly flows fell sharply, driven in part by the work at Primorsk. Using this measure, shipments fell to 3.18 million barrels a day, down by about 600,000 barrels a day from the revised figure for the period to Dec. 10.
Four-week average crude shipments were about 300,000 barrels a day below their May-June level — the baseline used by Moscow for the reduction in combined crude and product exports it has pledged to its partners in the OPEC+ group.
Russia will deepenits oil export cuts to 500,000 barrels a day below the May-June average during the first quarter of next year, after Saudi Arabia said it would prolong its unilateral

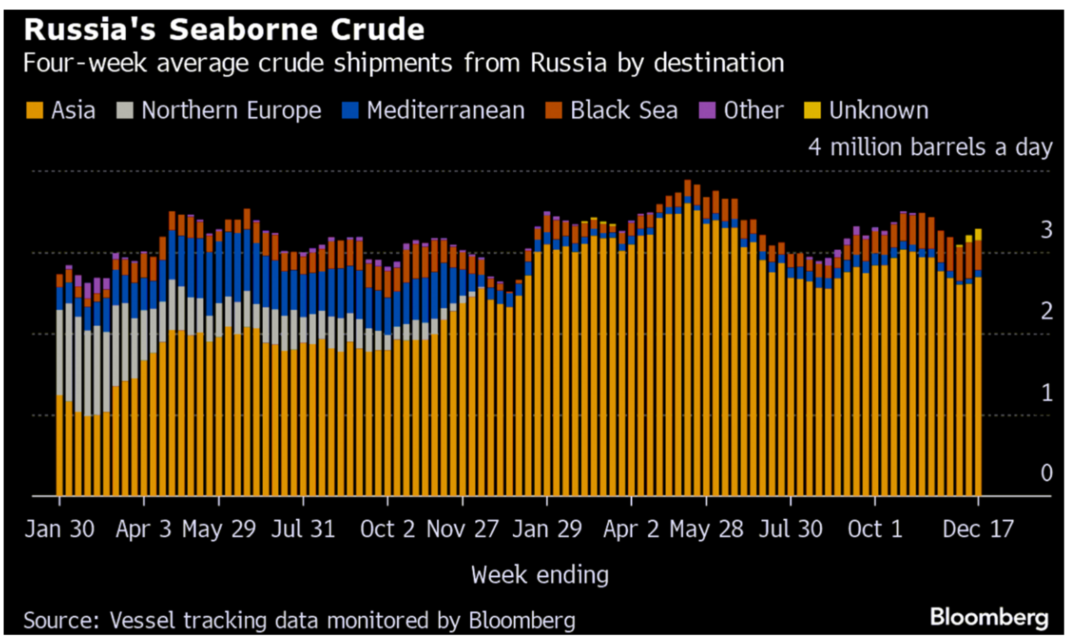
one-million-barrel-a-day supply reduction and several other members of the OPEC+ group agreed to make further output curbs. The Russian cut will be shared between crude shipments, which will be reduced by 300,000 barrels a day, and refined products, according to Deputy Prime Minister Alexander Novak.

For the rest of 2023, the reduction is set at 300,000 barrels a day, spread across both crude and refined products in undefined proportions. That complicates assessments of whether Russia is meeting its commitment to its OPEC+ partners.

Russia's oil processing climbed to the highest since early April, making up for a recent decline caused by logistical constraints resulting from storms in the Black Sea. The Kremlin's weekly revenues from oil export duties slipped after the previous week's jump to the highest level for the year. From January, Russia's oil producers are set to pay a higher output tax to fund increased downstream subsidies, which were reinstated in October after being halved the previous month.

Flows by Destination

Russia's seaborne crude flows in the four weeks to Dec. 17 rose to 3.28 million barrels a day. That was up from a revised 3.2 million barrels a day in the period to Dec. 10. Shipments were about 300,000 barrels a day below the average seen in volumes in May and June.



All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through Novorossiysk and the Baltic port of Ust-Luga and are not subject to European Union sanctions or a price cap.

The Kazakh barrels are blended with crude of Russian origin to create a uniform export grade. Since Russia's invasion of

Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

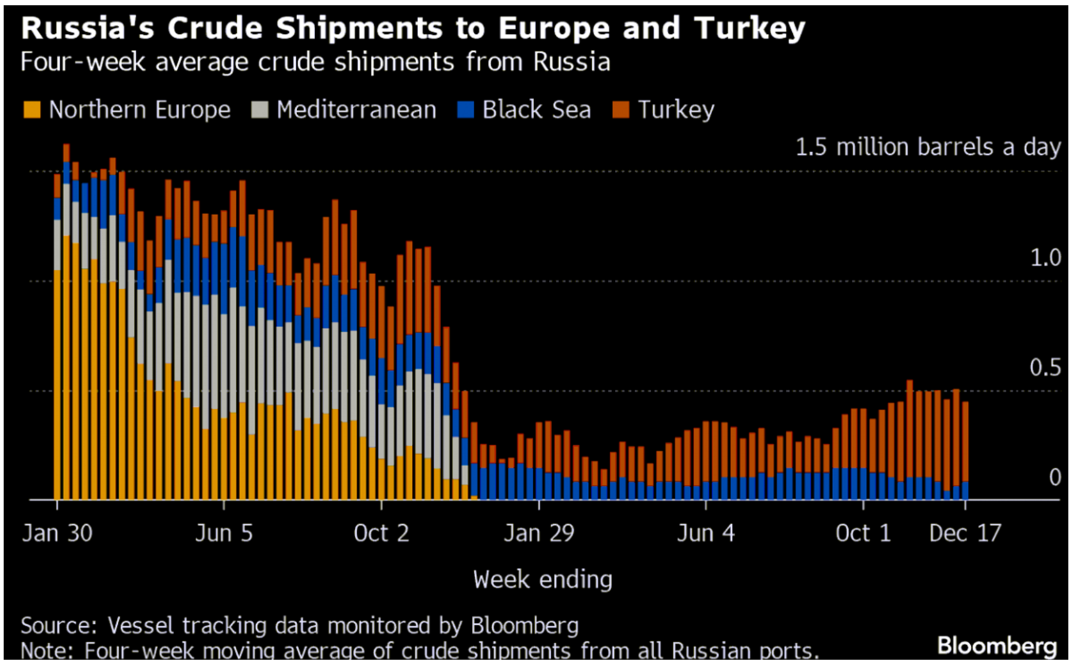
*** Asia**

Observed shipments to Russia's Asian customers, including those showing no final destination, rose to 2.83 million barrels a day in the four weeks to Dec. 17, up from a revised 2.7 million barrels a day in the period to Dec. 10.
About 1.17 million barrels a day of crude was loaded onto tankers heading to China in the four weeks to Dec. 17. China's seaborne imports are supplemented by about 800,000 barrels a day of crude delivered directly from Russia by pipeline, either directly, or via Kazakhstan.
Flows on ships signaling destinations in India averaged about 750,000 barrels a day in the four weeks to Dec. 17.
Both the Chinese and Indian figures will rise as the discharge ports become clear for vessels that are not currently showing final destinations.
The equivalent of about 740,000 barrels a day was on vessels signaling Port Said or Suez in Egypt, or are expected to be transferred from one ship to another off the South Korean port of Yeosu. Those voyages typically end at ports in India or China and show up in the chart below as "Unknown Asia" until a final destination becomes apparent.
The "Other Unknown" volumes, running at about 140,000 barrels a day in the four weeks to Dec. 10, are those on tankers showing no clear destination. Most of those cargoes originate from Russia's western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others could be moved from one vessel to another, with most such transfers now taking place in the Mediterranean, off the coast of Greece.

*** Europe and Turkey**

Russia's seaborne crude exports to European countries have collapsed since Moscow's troops invaded Ukraine in February 2022. A market that consumed about 1.5 million barrels a day of short-haul seaborne crude, coming from export terminals in the Baltic, Black Sea and Arctic has been lost almost completely, to be replaced by long-haul destinations in Asia that are much more costly and time-consuming to serve.

Combined flows to Turkey and Bulgaria, Russia's only two remaining buyers close to its western ports, have stabilized between about 450,000 and 500,000 barrels a day, tanker-tracking data show.



Exports to Turkey slipped to a seven-week low of about 365,000 barrels a day in the four weeks to Dec. 17. They are still close to three times as high as the lows they hit in July and August.

Flows to Bulgaria, now Russia's only European market for crude, edged up to about 83,000 barrels a day in the most recent four-week period. Flows are recovering from earlier disruption at Novorossiysk, though the halt to shipments from the Black Sea port will continue to affect the average until year-end.

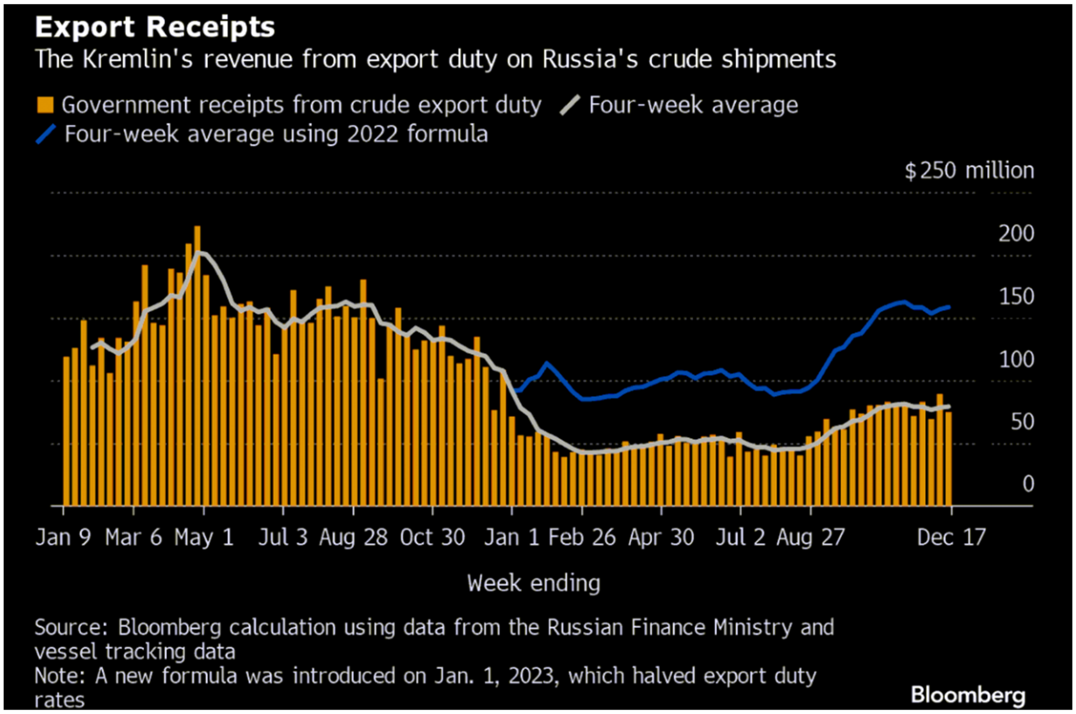
Bulgaria's parliament on Monday approved a measure that will end imports of Russian oil from March, nine months earlier than permitted under an exemption to EU sanctions on purchases of Moscow's oil.

No Russian crude was shipped to northern European countries, or those in the Mediterranean in the four weeks to Dec. 17.

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

Export Revenue

Inflows to the Kremlin's war chest from its crude-export duty fell back to $75 million in the seven days to Dec. 17. Meanwhile four-week average income rose, increasing by $1 million to a five-week high of $79 million.



The rate for December is $3.37 a barrel, based on an average Urals price of $79.23 during the calculation period between Oct. 15 and Nov. 14. That was about $9.39 a barrel below Brent over the same period.

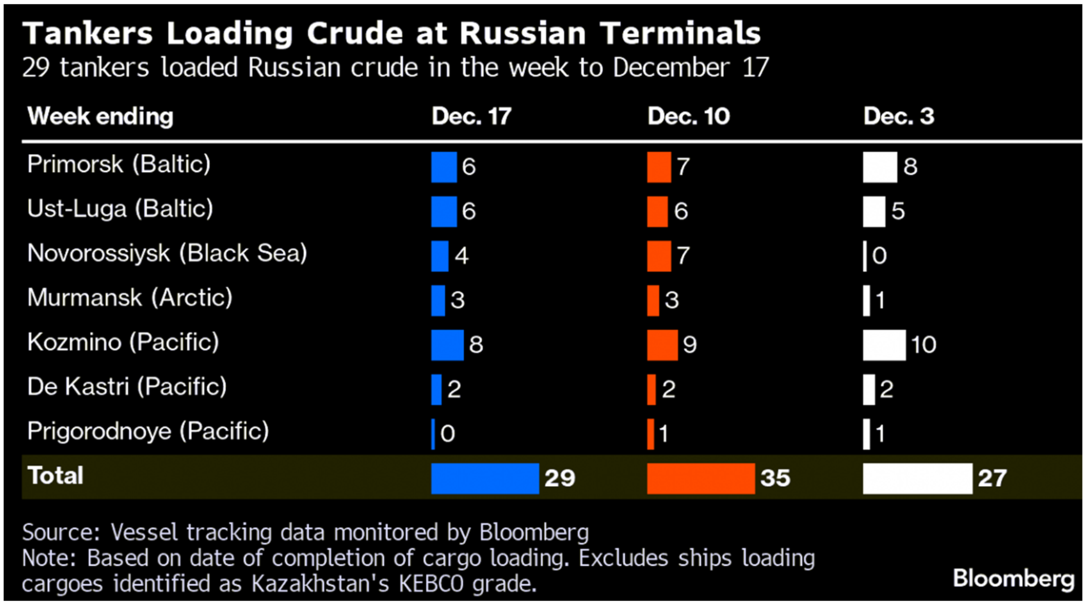
Export duty is set to be abolished at the end of this year as part of Russia’s long-running tax reform plans.

Origin-to-Location Flows

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

A total of 29 tankers loaded 22.2 million barrels of Russian crude in the week to Dec. 17, vessel-tracking data and port agent reports show. That’s down by about 4.2 million barrels from the revised figure for the previous week.

A four-day gap in the loading program for Primorsk suggests that planned work at the port, or the pipeline serving it, may have impacted flows last week.



Tankers Loading Crude at Russian Terminals

29 tankers loaded Russian crude in the week to December 17

Week ending	Dec. 17	Dec. 10	Dec. 3
Primorsk (Baltic)	6	7	8
Ust-Luga (Baltic)	6	6	5
Novorossiysk (Black Sea)	4	7	0
Murmansk (Arctic)	3	3	1
Kozmino (Pacific)	8	9	10
De Kastri (Pacific)	2	2	2
Prigorodnoye (Pacific)	0	1	1
Total	**29**	**35**	**27**

Source: Vessel tracking data monitored by Bloomberg
Note: Based on date of completion of cargo loading. Excludes ships loading cargoes identified as Kazakhstan's KEBCO grade.

Bloomberg

All figures exclude cargoes identified as Kazakhstan's KEBCO grade. One cargo of KEBCO were loaded at Novorossiysk and one at Ust-Luga during the week.NOTES
Note: This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the export duty revenues earned from them by the Russian government. Weeks run from Monday to Sunday. The next update will be on Tuesday, Jan. 2.
Note: All figures exclude cargoes owned by Kazakhstan's KazTransOil JSC, which transit Russia and are shipped from Novorossiysk and Ust-Luga as KEBCO grade crude.
If you are reading this story on the Bloomberg terminal, click here for a link to a PDF file of four-week average flows from Russia to key destinations.

--With assistance from Sherry Su.

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https://www.wsj.com/world/middle-east/u-s-says-iran-drone-struck-an-oil-tanker-near-india-db4a1233?mod=hp_lead_pos4

U.S. Says Iran Drone Struck an Oil Tanker Near India

Attack in the Indian Ocean signals an expanding risk to shipping after Yemeni rebels' attacks in the Red Sea

By Benoit Faucon Follow and Gordon Lubold Follow

Updated Dec. 23, 2023 5:33 pm ET

A chemical tanker in the Indian Ocean was struck by a drone launched directly from Iran early Saturday, the Pentagon said, signaling a widening risk to shipping after Yemeni rebels started attacking vessels in the Red Sea.

"The motor vessel Chem Pluto, a Liberia-flagged, Japanese-owned, and Netherlands-operated chemical tanker was struck at approximately 10 a.m. local time today in the Indian Ocean, 200 nautical miles from the coast of India, by a one-way attack drone fired from Iran," a Pentagon spokesperson said in a statement.

While Iran has struck tankers in the past, it is the first time the U.S. alleged Tehran had directly targeted ships since regional tensions flared up again after the Oct. 7 Hamas attacks on Israeli citizens.

The vessel is owned by Japan's Rio Brillante and managed by the Netherlands' Ace-Quantum Chemical Tankers, which is connected to Israeli shipping tycoon Idan Ofer. Rio, Ace-Quantum and a spokesman for Ofer didn't respond to requests for comment.

There were no casualties and a fire onboard the tanker was extinguished, the Pentagon said, adding that no U.S. Navy vessels were in the vicinity and that the U.S. is in communication with the vessel as it continues toward a destination in India.

Asked about suspicions Iran was involved in the attack, a spokesman for the Iranian delegation at the United Nations declined to comment immediately.

The Houthis, an Iranian ally in Yemen, started attacking commercial vessels passing through the Bab el-Mandeb strait, which connects the Red Sea to the Gulf of Aden and by extension the Indian Ocean, in response to an Israeli ground offensive in Gaza.

The Chem Pluto, which was loaded with refined products, was sailing from Jubail in Saudi Arabia to Mangalore in India when it was struck 200 nautical miles southwest of Veraval, India, U.K.-based maritime artificial-intelligence company Windward said.

The attack also prompted an Indian Navy ship to head toward the vessel to provide assistance, said Christopher Long, intelligence director at Neptune P2P. The Indian Navy didn't respond to a request for comment.

Long said the attack took place 1,530 miles from Yemen, within reach of the Shahed 136, an Iranian attack drone used by the Houthis that can fly up to 1,600 miles. Whoever was behind it, "this incident is a game changer due to how far from land that it happened," said Long, a former British Navy officer in the Persian Gulf.

A Houthi spokesman neither denied nor confirmed involvement. "We take pride in what we do and officially declare it," he said, adding that the Houthis are keen on causing any possible harm to Israel until it allows more food and medicine into Gaza and ceases aggression.


A satellite picture of the Galaxy Leader—seized earlier this year by Yemen's Houthis—anchored off Yemen. PHOTO: /AGENCE FRANCE-PRESSE/GETTY IMAGES

Iran's paramilitary forces are providing real-time intelligence and weaponry, including drones and missiles, to Yemen's Houthis that the rebels are using to target ships passing through the Red Sea, Western and regional security officials have previously said.

Iran has previously said it wasn't involved, but its security officials have been making threats to attack shipping routes

On Saturday, an Iranian Revolutionary Guard Corps commander said the Mediterranean Sea could shut for trade if the Israeli offensive in Gaza didn't stop. "They shall soon await the closure of the Mediterranean Sea, Gibraltar and other waterways," the conservative Tasnim news agency quoted Brigadier Gen. Mohammad Reza Naqdi as saying.

The attacks have increased shipping costs and forced companies such as BP and Equinor to divert their voyages away from the Red Sea, one of the world's busiest shipping lanes, handling roughly 12% of global seaborne trade annually. At least 33 container vessels were diverted away from the Red Sea in the past week and now have to travel through Southern Africa, delaying deliveries by 60 days from Asia to Western Europe, said Windward Chief Executive Ami Daniel. Meanwhile, freight prices from China to the Mediterranean are now up 61%, he said.

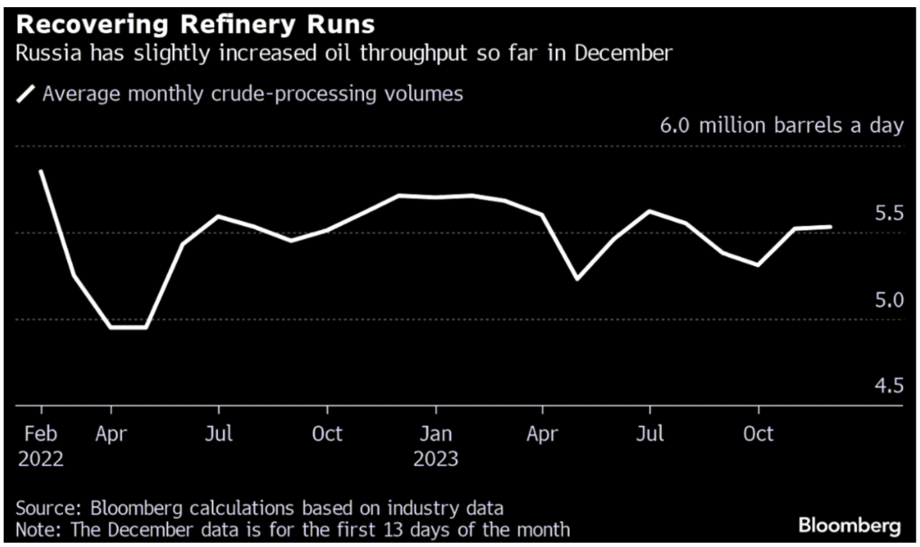
In response to the mounting risk, the Pentagon last week unveiled plans for a multinational naval force to protect merchant vessels in the Red Sea. Meanwhile, many of the world's biggest shipping lines, oil producers and other cargo owners have started diverting vessels from the region, prompting a rise in oil prices and insurance rates.

Daniel said the attack in the Indian Ocean raised the question of whether the "coalition [can] really defend an area seven times bigger than Europe."

Saleh al-Batati contributed to this article.

Russia’s Crude Processing Jumps to Highest Since Early April
2023-12-18 14:10:51.218 GMT

By Bloomberg News
(Bloomberg) -- Russia’s oil processing climbed to the highest since early April, making up for a recent decline caused by logistical constraints.
Refineries processed around 5.7 million barrels of crude a day from Dec. 7 to Dec. 13, up about 368,000 barrels a day from the first six days of the month, according to a person with knowledge of the matter.
The weekly spike was mainly driven by higher runs at Rosneft PJSC’s Tuapse refinery in southern Russia’s Krasnodar region, the person said. The facility, which sends the bulk of its products abroad, previously curtailed operations as Black Sea storms aggravated logistical problems.
Higher processing rates at the Afipsky and Ilsky plants, also in the Krasnodar region, as well as at Lukoil PJSC’s Volgograd facility, contributed to the weekly growth in runs, the person said.



The companies didn’t immediately respond to requests for comment.
Russian crude processing in the first 13 days of December averaged 5.53 million barrels a day, up some 16,000 barrels compared with data from most of November, according to Bloomberg calculations.
The nation’s refinery runs remain — along with seaborne crude exports — one of the key indicators to assess Russia’s oil production after the government classified official output data amid Western sanctions.
Russia’s daily seaborne crude exports in the week to Dec. 10 rose by about 910,000 barrels from the revised figure for the prior period, averaging 3.76 million barrels. That’s the highest since early July, tanker-tracking data show. The less volatile four-week average increased by 114,000 barrels a day.
Moscow, in coordination with its OPEC+ allies, has pledged

to deepen cuts in crude and oil-product exports to 500,000 barrels a day in the first quarter of next year from current curbs of 300,000 barrels a day. It will start tightening those restrictions as early as December and reach the pledged level in January, Tass reported earlier this month, citing Deputy Prime Minister Alexander Novak.

Russia already announced voluntary output cuts of 500,000 barrels a day earlier this year in response to Western sanctions, in particular the Group of Seven's price cap on Russian crude and products.

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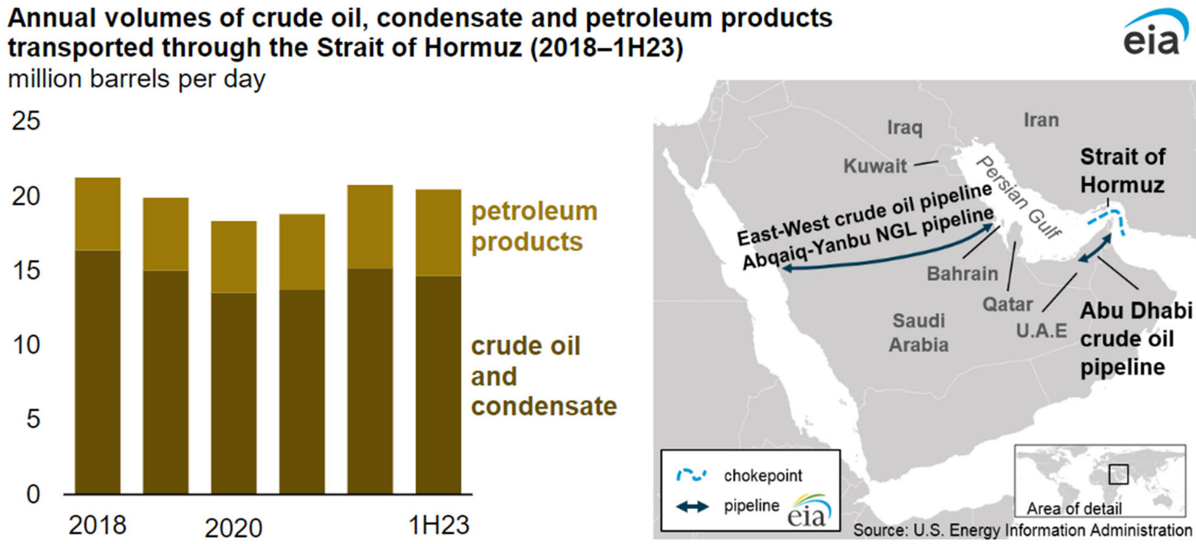
NOVEMBER 21, 2023

The Strait of Hormuz is the world's most important oil transit chokepoint



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

The Strait of Hormuz, located between Oman and Iran, connects the Persian Gulf with the Gulf of Oman and the Arabian Sea. The Strait of Hormuz is the world's most important oil chokepoint because large volumes of oil flow through the strait. In 2022, its oil flow averaged 21 million barrels per day (b/d), or the equivalent of about 21% of global petroleum liquids consumption. In the first half of 2023, total oil flows through the Strait of Hormuz remained relatively flat compared with 2022 because increased flows of oil products partially offset declines in crude oil and condensate.

Chokepoints are narrow channels along widely used global sea routes that are critical to global energy security. The inability of oil to transit a major chokepoint, even temporarily, can create substantial supply delays and raise shipping costs, increasing world energy prices. Although most chokepoints can be circumvented by using other routes, which often add significantly to transit time, some chokepoints have no practical alternatives.

Between 2020 and 2022, volumes of crude oil, condensate, and petroleum products transiting the Strait of Hormuz rose by 2.4 million b/d as oil demand recovered after the economic downturn from the COVID-19 pandemic. In the first half of 2023, shipments of crude oil and condensates dropped because OPEC+ members implemented crude oil production cuts starting in November 2022. Flows through the Strait of Hormuz in 2022 and the first half of 2023 made up more than one-quarter of total global seaborne traded oil. In addition, around one-fifth of global liquefied natural gas trade also transited the Strait of Hormuz in 2022.

Volume of crude oil, condensate, and petroleum products transported through the Strait of Hormuz (2018–1H23)
million barrels per day

	2018	2019	2020	2021	2022	1H23
Total oil flows through Strait of Hormuz	**21.3**	**19.9**	**18.3**	**18.8**	**20.8**	**20.5**
Crude oil and condensate	16.4	15.0	13.5	13.7	15.2	14.7
Petroleum products	4.9	4.9	4.8	5.1	5.6	5.8
World maritime oil trade	**77.4**	**77.1**	**71.9**	**73.2**	**75.2**	**76.3**
World total petroleum and other liquids consumption	**100.1**	**100.9**	**91.6**	**97.1**	**99.6**	**100.3**
LNG flows through Strait of Hormuz (billion cubic feet per day)	**10.3**	**10.6**	**10.4**	**10.6**	**10.9**	**10.8**

Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, and U.S. Energy Information Administration analysis based on Vortexa tanker tracking and FACTS Global Energy
Note: World maritime oil trade excludes intra-country volumes except those volumes that transit the Strait of Hormuz. LNG=liquefied natural gas. 1H23=first half of 2023.

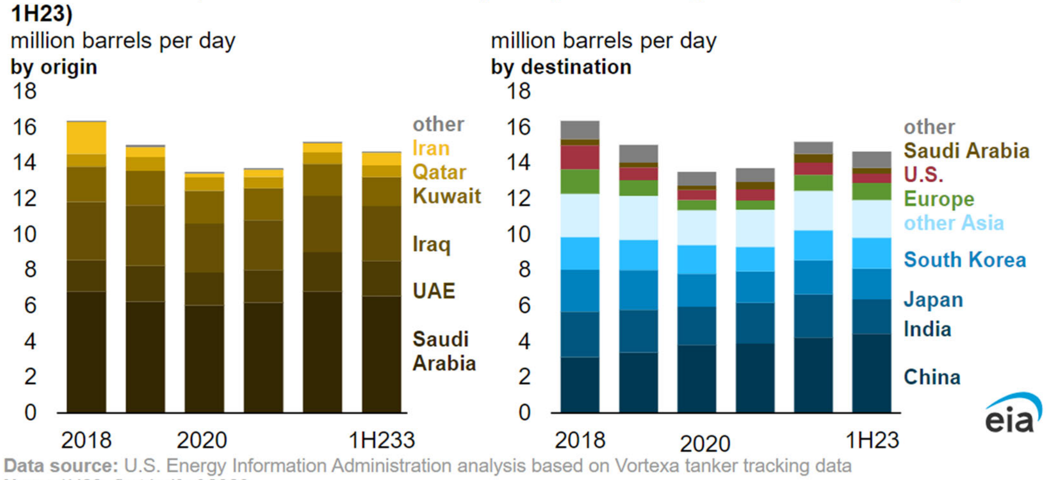
Only Saudi Arabia and the United Arab Emirates (UAE) have operating pipelines that can circumvent the Strait of Hormuz. Saudi Aramco operates the 5-million-b/d East-West crude oil pipeline and temporarily expanded the pipeline's capacity to 7 million b/d in 2019 when it converted some natural gas liquids pipelines to accept crude oil. The UAE links its onshore oil fields to the Fujairah export terminal on the Gulf of Oman with a 1.5 million b/d pipeline.

Iran inaugurated the Goreh-Jask pipeline and the Jask export terminal on the Gulf of Oman with a single export cargo in July 2021. The pipeline's capacity was 0.3 million b/d at that time, although Iran has not used the pipeline since then. We estimate that around 3.5 million b/d of effective unused capacity from these pipelines could be available to bypass the strait in the event of a supply disruption.

Based on tanker tracking data published by Vortexa, Saudi Arabia moves more crude oil and condensate through the Strait of Hormuz than any other country, most of which is exported to other countries. Around 0.5 million b/d transited the strait in 2022 from Saudi ports in the Persian Gulf to Saudi ports in the Red Sea.

We estimate that 82% of the crude oil and condensate that moved through the Strait of Hormuz went to Asian markets in 2022. China, India, Japan, and South Korea were the top destinations for crude oil moving through the Strait of Hormuz to Asia, accounting for 67% of all Hormuz crude oil and condensate flows in 2022 and the first half of 2023.

Annual volumes (crude oil and condensate) transported through the Strait of Hormuz (2018–1H23)



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

In 2022, the United States imported about 0.7 million b/d of crude oil and condensate from Persian Gulf countries through the Strait of Hormuz, accounting for about 11% of U.S. crude oil and condensate imports and 3% of U.S. petroleum liquids consumption. U.S. crude oil imports from countries in the Persian Gulf have fallen by half since 2018 as domestic production has increased.

Principal contributors: Candace Dunn, Justine Barden https://www.presstv.ir/Detail/2023/12/19/716630/Yemen-Red-Sea-will-turn-into-graveyard-US-led-coalition

Yemen says will turn Red Sea into ‘graveyard’ after US announces maritime coalition

Tuesday, 19 December 2023 7:12 AM **[Last Update: Tuesday, 19 December 2023 8:13 AM]**

Yemeni Defense Minister Major General Mohammad al-Atifi speaks at a ceremony in Sana’a, Yemen. (File photo by Yemen Press Agency)

Yemen’s defense minister has denounced the formation of a US-led maritime task force in the Red Sea to protect the passage of merchant vessels bound for the Israeli-occupied territories, cautioning the Western alliance that any assault on Yemeni soil will have dire consequences.

“We are in possession of munitions and military gear that can sink your warships, submarines and aircraft carriers,” Major General Mohammad al-Atifi said on Monday.

“The Yemeni Armed Forces will turn the Red Sea into a graveyard of the US-led coalition if the alliance decides to take any action against Yemen,” he said.

Earlier on Monday, Pentagon chief Lloyd Austin announced the formation of the coalition – including Bahrain, Canada, France, Italy, the Netherlands, Norway, Seychelles, Spain and the UK – to patrol the Red Sea in response to Yemeni strikes on ships bound for the Israeli-occupied territories, which came in retaliation for the Tel Aviv regime’s war on the Gaza Strip.

Ansarullah vows to confront US-led coalition

Meanwhile, Yemen’s Ansarullah resistance movement has pledged to confront the US-led coalition, stressing that Washington will experience both military and prestige defeats if it attacks Yemen.

“The Yemeni Armed Forces have painful options, which they will employ in response to any act of aggression against their homeland. We only target ships that are either Israeli-owned or heading towards Israeli ports,” said Mohammed al-Bukhaiti, a member of Ansarullah’s political bureau.

Bukhaiti stressed that Yemen stands fairly committed to safe navigation at sea, adding, “We are only acting against the interests of the Zionist regime. We will confront any coalition that Washington establishes in the Red Sea.”

The senior Yemeni official noted that negotiations are underway through intermediaries with a number of countries, including the United States, to persuade Yemeni forces to stop their retaliatory operations.

BP halts oil, gas shipments through Red Sea

Furthermore, the British oil and gas giant has halted all shipments of energy through the Red Sea after an increase in attacks on Israel-bound ships by the Yemeni Armed Forces in Yemen, including two further strikes on Monday.

BP said it had paused shipping in the region indefinitely, citing a “deteriorating security situation” amid tensions in the aftermath of the ongoing Israeli war on Gaza.

The Yemenis have declared their open support for Palestine’s struggle against the Israeli occupation since the regime launched a devastating war on Gaza on October 7.

The relentless Israeli strikes against Gaza have killed at least 19,453 people, most of them women and children, in Gaza. Another 52,286 individuals have been wounded as well.

Reports revealed that Israeli shipping companies have already decided to reroute their vessels in fear of attacks by Yemeni forces.

The Yemeni forces have also launched missile and drone attacks on targets in the Israeli-occupied territories of Palestine after the occupying regime’s aggression on Gaza.

https://www.saba.ye/en/news3289812.htm

Revolution Leader

Revolution leader warns of America’s efforts to militarize Red Sea & confirms that Yemen will respond to any targeting of it

Revolution leader warns of America’s efforts to militarize Red Sea & confirms that Yemen will respond to any targeting of it

[20/December/2023]

SANA'A December 20. 2023 (Saba) - The Leader of the Revolution, Mr. Abdul Malik Badr al-Din al-Houthi, warned of America’s efforts to militarize the Red Sea and threaten international navigation, stressing the responsibility of all countries located on the shores of the Red Sea to move against the aggressive and intrusive American position because of its harm to international navigation.

In his speech on Wednesday regarding the latest developments in Palestine, the Leader of the Revolution called on the countries bordering the Red Sea to take a clear stance against the American position that violates the rights of these countries and threatens their security and stability.

He advised all countries that the American seeks to implicate them not to implicate themselves, and not to sacrifice their interests and lose the security of their navigation in the service of the Zionists. Pointing out that whoever moves with the American and implicates himself in protecting Israeli ships is providing an exclusive service to Israel and harming international navigation.

He said, "The recent American move will not completely deter us from our firm, principled, and moral position that we declared from the beginning alongside the Palestinian people." Pointing out that the American move is not new, as it has moved battleships, aircraft carriers, and all its capabilities from the beginning, but it is now seeking to implicate others.

The Leader of the Revolution stressed that the Yemeni people will not stand idly by if the Americans have a tendency to escalate further and commit foolishness by targeting the country or launching a war against it, and that any “American targeting of Yemen will be met with targeting of American battleships, interests, and navigation with missiles, drones, and military operations.”

He said: "We are not among those who stand idly by while the enemy targets them. We are a people who reject injustice, rely on God, and do not fear direct American threats and aggression."

The leader of the revolution asked the Arab countries to “leave Yemen in direct war with the Israeli and American enemies. If they want to dance, let them dance, but not participate militarily or financially with them.” He said: “If the Arabs want to be an audience that applauds the Americans, let them applaud, and if they want to dance to let them dance with the remains of the victims, but do not join the Americans in their war against us.”

He added, "As long as the American wants to enter into a direct war with us, he should know that we are not among those who fear him, and that he is facing an entire people and not a specific group. If he wants to prevent the Yemeni position towards Palestine, then he is in trouble with all the Yemeni people."

He continued: "If the American sends his soldiers to Yemen, he should know that he will face something harsher than what he faced and suffered in Afghanistan and Vietnam. He should also not imagine that he can strike here or there and then send mediations to calm the situation."

Mr. Abdulmalik Badr al-Din al-Houthi stressed that the Americans must know that the Zionists of America are seeking to involve it in what is not in its interest but rather in the service of Israel. He pointed out that what the American is doing at sea is a loss for him, as he launches a missile worth two million dollars to confront a drone worth no more than two thousand dollars.

He stated that the Yemeni people have the strength to confront and confront the enemy and remain steadfast in the face of attacks, as the Yemenis have steadfasted for nine years in the face of aggression.

Yemen's position is correct and principled
The leader of the revolution explained that the Yemeni people took action and took the correct position at all levels and announced the provision of all possible forms of support to the Palestinian people. He said, “Our dear people moved out of faith, moral and religious responsibility to declare war on the Zionist enemy, and move their missile force and drones to target the enemy, and they also moved

at the level of the Red Sea, the Gulf of Aden, and the Arabian Sea to prevent the movement of Israeli ships and ships linked to Israel that are trying to deliver supplies to the Israelis."

He added, "We have submitted a request to the countries that geographically separate us from occupied Palestine to open land crossings through which hundreds of thousands of our people can move to Palestine. Our people also continue to provide financial donations to the Palestinian people despite the very difficult living conditions because we are essentially a besieged people and are still in a state of war."

He continued, "At the level of the political position, our position was supportive, and our media front moved mainly to support the Palestinian people and their mujahideen. As for the level of marches, our people come out every Friday in millions filling the squares, and the masses roar with their voices and their declared and clear positions, chanting the chant of innocence and the cry in the face of the arrogant people with this bold and clear slogan, this is a position that rises to the level of responsibility."

He pointed out that the popular movement in Yemen may be unparalleled at the level of the Arab and Islamic world and even the rest of the world, as it is a position that enjoys great consensus among the people, even more than national issues, as the Yemeni people's consensus regarding the aggression against it was not the same as it is regarding the Palestinian issue and supporting the Palestinian people and the mujahideen in Gaza.

The leader of the revolution stated that the issue is not a movement related to a specific group of the Yemeni people, but rather an official and popular movement that expresses the will of the people even in the occupied governorates controlled by the aggression coalition, and this expresses the position, conscience and values of the Yemeni people that are consistent with their principles, affiliation, freedom and faith identity. If some positions of some mercenaries are deviant, they do not reflect the people and their will.

He stated that the Yemeni people clearly expressed in Al-Sabeen Square, through the two million public attendance, expressing this position and the high ceiling for this position. He said: "What the Yemeni people hope and demand is greater than what we are currently doing, but we are doing what we can and seeking to do what is greater and more severe against the Zionist enemy."

Efforts to develop Yemen's military capabilities
The Leader of the Revolution revealed the current efforts and endeavors to develop Yemen's military capabilities in light of what some forces in the region are doing to confront the strikes directed at the Israeli enemy.

He said: "Sometimes four countries, including Arab countries and military forces, in addition to the enemy entity, try to prevent our drones and missiles from reaching their targets.

He expressed his regret over some Arab countries enlisting with the Zionist enemy and using their military capabilities to protect it from Yemeni missiles instead of moving to protect the Palestinian people. He added, "We seek to develop our capabilities to overcome any obstacles and achieve their goals so that this rises to the level of responsibility and meets the desire and will of the Yemeni people and their clear position against the Zionist enemy in its criminal aggression against the Palestinian people in Gaza. We did not target any other country, and we have been patient with the objection operations carried out by some Arab countries and did not target them."

He continued, "Our goal and our approach is to support the Palestinian people, the residents of Gaza, and its mujahideen, and this is a right and legitimate position," indicating that "the Americans, the British, and those with them come to our region and our seas and support the Zionist enemy in its crimes, and then they denounce the actions of others in the humanitarian position."

The leader of the revolution stressed that the unjust and criminal position is the American-British position, as the situation reached the point that some American officials submitted their resignation after feeling ashamed of what America is doing... indicating that the demonstrations took place in America, France and Britain to denounce the official approach there, as this approach is what contradicts People's interests and values.

He pointed out that the position of the Yemeni people is the honorable position and the correct position that is consistent with the faith and humanitarian responsibility of our people. He said, "Shame on America, Britain, France, Italy and all countries for standing with the Zionist enemy in its killing of children and women and its very heinous crimes."

He added, "We are not ashamed of our position, but rather we seek to reach it to the maximum extent possible without embarrassment or hesitation, and we see it as a position worthy of sacrifices, whatever they may be." He stressed that the position of the Yemeni people in the Arabian Sea, the Gulf of Aden, and the Red Sea is to prevent the movement of Israeli ships or those associated with it, it is an effective and influential position.

He mentioned that some ignorant and vile people were mocking the position of the Yemeni people at sea, until the Zionist enemy became angry about it and shouted about its impact on their economy. The Americans and the arms of the Zionist lobby were shouting about the position of the Yemeni people in preventing Israeli ships from crossing the Red and Arabian seas... stressing that the field It is open to the movement of commercial ships in the Red and Arab seas, the Gulf of Aden and Bab al-Mandab, and the movement of ships has continued in the hundreds.

The leader of the revolution pointed out that Yemen’s move does not target international ships and does not harm international navigation. The target is exclusively Israeli ships or those linked to Israel. He said, “We target ships that are either owned by the Israelis, or they own part of them, or go to the ports of occupied Palestine, bringing supplies to the Zionist enemy.”

He added, "Our effective and influential position was prompted by the Israeli enemy and asked its partners in the crimes of genocide to move in the Red Sea to prevent this move... Pointing out that the American was moving from the beginning in the sea and sought to protect the passing Israeli ships and his battleships were moving to protect them, but what he was seeking was Now he implicates others with him in this matter, indicating that the American move is not a move to protect international navigation in Bab al-Mandab. The greatest danger is the American move that seeks to militarize the Red Sea.

The Zionist enemy continues to commit the most heinous crimes

The Leader of the Revolution indicated that, for 75 days, the Zionist-Jewish-Israeli enemy continues its brutal, criminal, barbaric aggression against the Palestinian people in the Gaza Strip, committing the most heinous and shameful crimes, which are the crimes of genocide and the mass killing of children, women, adults and children, as thousands of the Palestinian people were killed.

He pointed out that the Zionist enemy targets the Palestinian people with all means of extermination, killing by all brutal means, starvation, siege, and denying them food and medicine, to the point that it made hospitals declared main targets for its ground and field operations as if they were military bases, in an unprecedented behavior.

He stated that countries that are at war usually declare strategic and military bases as their targets, while the Israeli enemy brazenly declares hospitals as the target of its military operation and kills and destroys. When it reaches the hospital, it targets the wounded, the sick, medical personnel, and nurses, and targets civilians with all criminality and brutality, then presents this as a military achievement and brags about it.

Mr. Abdul-Malik Badr al-Din al-Houthi stated that the Zionist enemy is targeting, with bombs, missiles, artillery, and tanks, homes, markets, and displaced persons’ gatherings, until the outcome of its brutal crimes every 24 hours has become hundreds of martyrs, most of whom are children and women... indicating that the Israeli enemy continues in its brutality, and when it fails in a field battle, it resorts to for indiscriminate bombing of civilians in Gaza.

He pointed out that the state of starvation in Gaza had reached the level of recording deaths from hunger, and the complete prevention of access to medicines. The Zionist targeting included even infants and premature infants in hospital care departments, with a criminal tendency that expresses the reality of the Jewish Zionists, what they are like in their beliefs and behavior, and the hatred and extreme hostility they carry and are devoid of all human feeling.

Unlimited American support for the Zionist enemy

The Leader of the Revolution confirmed that the Americans are partners in this aggression that began 74 days ago against Gaza, as the Americans participated directly from the first moment and sent their military experts and advisors to directly manage the military operations and be the ones who plan and supervise the implementation and the ones who follow up on the implementation of these crimes and attacks.

He stated that the American provided the Zionist enemy with thousands of destructive bombs that target civilians and residential neighborhoods, as well as internationally prohibited weapons, including white phosphorus bombs, and provided it with material support in the amount of billions of dollars to finance these military operations and sent drones and reconnaissance aircraft to contribute at the level of direct information and provided all forms of support and cooperation.

He stated that, in addition to all forms of military and financial support, the Americans provided political support to the enemy entity and protection in the regional environment of Palestine, and they threatened all countries in the region against any cooperation with the Palestinian people in order to create sufficient conditions for the Zionist enemy to commit whatever crimes it wanted without objection or obstruction from anyone.

He said, "Even at the level of humanitarian support and the introduction of food and medicine to the Palestinian people in the Gaza Strip, nothing is allowed to enter except after American and Israeli approval, and it must be in a very limited manner that does not satisfy the livelihood of the people of Gaza. The Americans also threatened the countries of the region not to intervene to stop the Israeli aggression on Gaza."

He continued: "When we see the tragic scenes of thousands of children and women killed by American bombs and the state of extreme hunger, we must remember the American contribution to all of this, and that America is another arm of global Jewish Zionism, to which the American president boasted of his affiliation and that he is moving according to that premise."

The leader of the revolution pointed out that those who move in America to support Israel in what it is doing to the Palestinian people are the American Zionists. The Zionist-Jewish lobby moves America even in ways that go beyond its interests, harms it in the world, and presents it in a hideous, criminal form, while it supports injustice and tyranny that is added to its criminal and terrible record.

He pointed out that the American has transformed its bases in the region to be a support for the Zionist enemy, all of its weapons stores, and every resolution under the title of a ceasefire in the United Nations that the American objects to and insists on the continuation of killing and crimes in Gaza... indicating that the American who presented himself under the title of being a sponsor of peace In the Middle East, he objects to any ceasefire decision in Gaza and insists on killing civilians in Palestine.

He stated that the American prevents any movement to protect civilians in Palestine, and obstructs any efforts to provide the Palestinian people with the food and medicine they need.

He stated that the British movement, which had the lead in establishing the Zionist entity from the beginning, is constantly moving today in support of the Zionist enemy. He said, "We also see in supporting the Zionists the movement of some European countries, including France, Italy, and Germany, each of which has a dark history and a hideous criminal record."

He stated that the regimes and governments that support the enemy entity have a black criminal record, and are known for their moral and ethical bankruptcy, and they are the ones that have expunged morals and values from their political dictionary... indicating that when the Zionist lobby moves Western regimes, they make them deny even liberal values, it moves as if its crazy, without any human values and as a product of jungle policies.

The leader of the revolution pointed out that the responsibility is great on the Islamic world, especially in the Arab region, which is the heart of the Islamic world, and the responsibility is on all Muslims, even those in Western countries, considering Palestine a part of them at the level of geography and people, to take serious action to support the Palestinian people and prevent this injustice as a religious, moral and humanitarian responsibility based on their affiliation to Islam and its principles, values and morals.

He explained that some Arab countries severed their relations with countries from the West because they said a word in describing their behavior or insulted a king or prince... indicating that countries that act harshly against any Arab or Muslim country, we see in a state of complete apathy towards the nation’s major issues, such as the oppression of the Palestinian people. .

He said, "These countries have reached the point where they are preoccupied with dancing, singing, dog competitions, and very trivial things, ignoring the major massacres in Palestine." He stressed that it is a great responsibility for all Muslims to have a voice and take serious positions in the same way that they support any cause they interact and are passionate about seriously, and to provide financial support and even military support.

He said, "Sometimes ugly voices appear in Arab countries to blame the Palestinian people and their mujahideen and insult any position that supports them. The Arab countries were not satisfied with shirking responsibility in supporting the Palestinian people, but rather began to gloat over them and their mujahideen, insult them, and distort any support for them."

He added, "We do not expect any positive role from America and European countries for the benefit of the Palestinian people, as they are always in a position of injustice, tyranny, arrogance, and plundering peoples."

The leader of the revolution pointed out that the position at the general level, including the Riyadh summit, was a weak position, just statements containing a demand and everything ends after the statement... indicating that the axis of resistance stands at the level of military, media and popular support and going out in marches, while in some Arab countries it was even prohibited demonstrations.

He stressed that the axis of resistance stands at the level of military, media and popular support and going out in marches, while in some Arab countries even demonstrations were banned.

He asked, "Is there a scholarly movement by those who were issuing fatwas on the necessity of jihad if the issue was strife in Syria or targeting the Yemeni or Iraqi people and others? Where is the scholarly voice that issued fatwas that jihad was necessary in support of the Palestinian people? What justifies their silence, ignoring, and even blaming the Palestinian people and their mujahideen?"

The leader of the revolution stressed that the more the Yemeni people were at war, the stronger they became, and the more the enemies attacked them, the more they developed their military capabilities to confront them. He said, “The enemy does not hope that it is possible for our people to submit. Our position is firm, but we advise others to beware of getting involved with the American and to leave him to get himself involved.”

He addressed the European countries by saying, "There is no danger to your ships that do not go to the enemy entity, but when you get involved with the Americans, you are risking your interests in every sense of the word."

He expressed the hope that the Islamic world, in light of the continued American and Israeli tyranny over Gaza, would review their calculations and adopt stronger positions than they are...praising the Malaysian position that banned one of the Zionist companies from its ports and prevented it from practicing any activity in its ports.

Gaza's steadfastness expresses a will of faith The leader of the revolution pointed out that the steadfastness of the brothers in Gaza is a great steadfastness that expresses a will of faith and of mujahideen who depend on God, trust in Him, believe in their cause, and possess morals that qualify them for steadfastness and dedication. He said, “The mujahideen in Gaza are abusing the Zionist enemy and killing its soldiers, perhaps this issue does not receive the media coverage it deserves, but it is an honorable matter that represents hope for victory.”

He added, "We say to the Palestinian people and to the proud Mujahideen brothers in Gaza. You are not alone. God is with you and He is the best of helpers. Our Yemeni people are with you in everything they can."

He addressed the people and the Palestinian resistance: “The American position, nor the threat from the American or anyone else will deter us from our stand beside you. All the free people of our nation are at your side. The axis of resistance is present in important and active roles. Hezbollah is on a raging front in northern Palestine at your side.”

He stated that all the peoples of the world who have some human conscience left cheer for the Palestinian people and their oppression... and he said, “Have faith in the victory of God Almighty, and no matter how far the enemy persists in its crimes, your steadfastness and jihad are a reason for divine victory, along with your oppression and suffering, which are in the eyes of God.”

Mr. Commander confirmed that the American seeks to protect the Israeli ships because he wants crimes to continue in Gaza. Otherwise, the correct solution is to stop the aggression and the siege on Gaza. Whatever the American position in supporting the Zionist enemy, he will lose if the Israeli loses. Therefore, no matter the extent of the suffering, the oppressed will gain victory.

He reiterated that the position of the Yemeni people continues, and it is the correct position that all countries of the world must adopt, which is to demand an end to the aggression against Gaza. He explained that the American move in the Red Sea is an illegal move, but rather aggression, crime, bullying, and brutal behavior that seeks to serve the Israelis.

He urged the Yemeni people to continue all activities and be prepared for all eventualities. He said, "Our dear people adopted their position diligently and honestly, not a tactical position. The enemy must know what we mean by a position of faith and positions based on faith, and our people will not hesitate or back down from their position as a result of threats, intimidation, and pressure."

The leader of the revolution concluded his speech by emphasizing that, "No matter what the Americans do against our people, we rely on God and confront the Americans. We prefer a direct war with the Americans and the Zionist enemy."

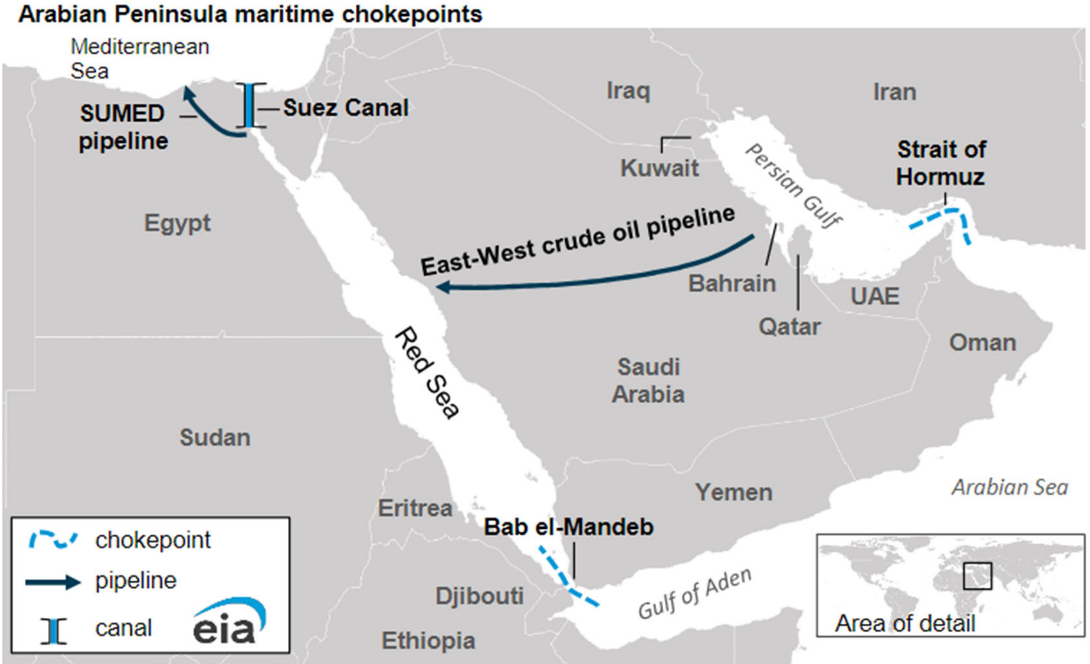
E.M

https://www.eia.gov/todayinenergy/detail.php?id=61025

DECEMBER 4, 2023

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

Arabian Peninsula maritime chokepoints



Data source: U.S. Energy Information Administration

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

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

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

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

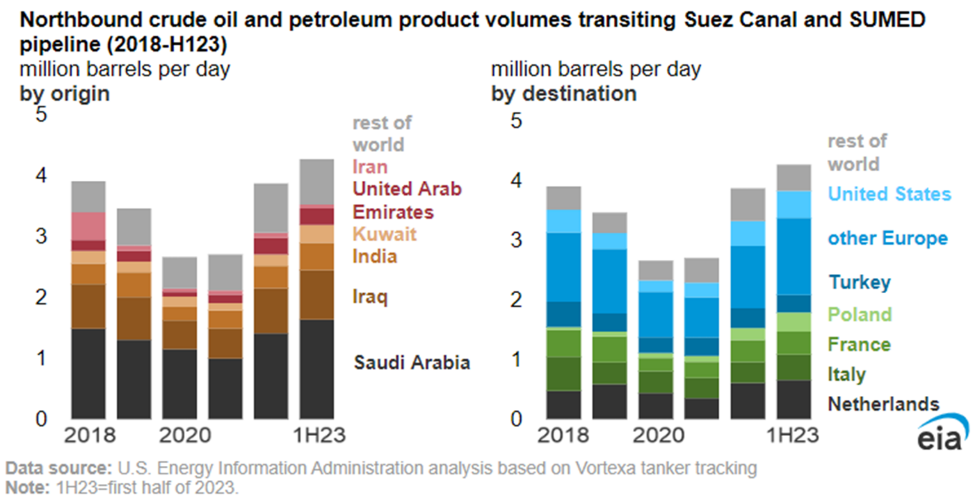
Data source: U.S. Energy Information Administration analysis based on Vortexa tanker tracking
Note: LNG=liquefied natural gas. 1H23=first half of 2023

Oil shipments

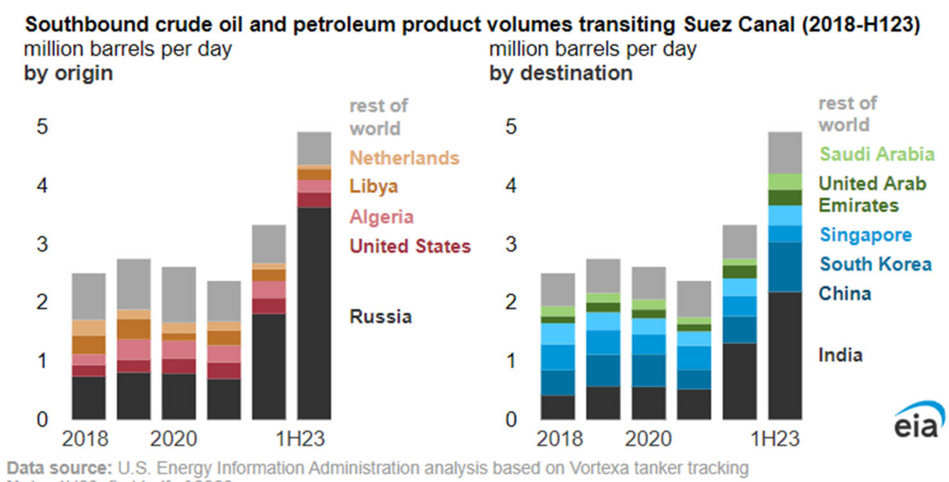
Northbound oil flows toward Europe via the Suez Canal and SUMED pipeline fell between 2018 and 2020. Renewed U.S. sanctions on

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

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

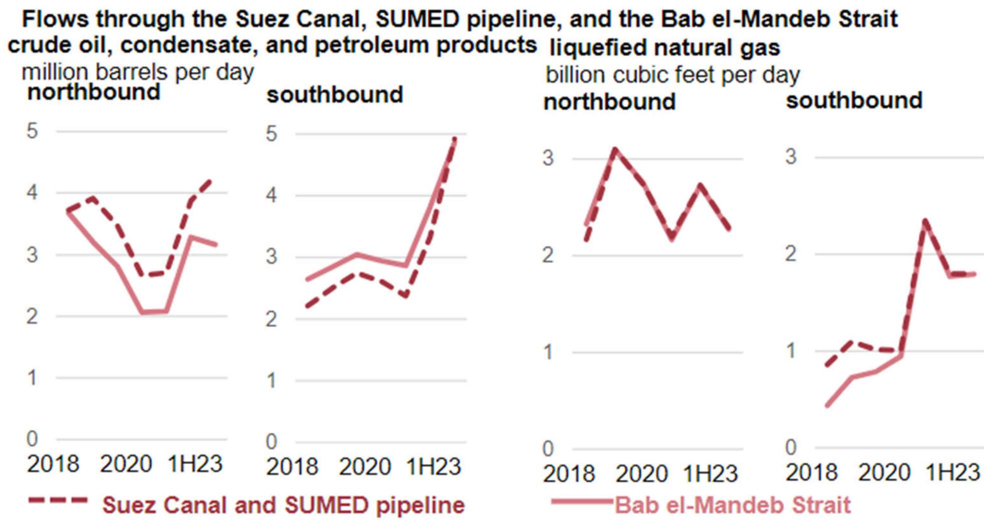


Southbound shipments through the Suez Canal rose significantly between 2021 and 2023, largely because of Western sanctions on Russia's oil exports. Oil exports from Russia accounted for 74% of Suez southbound oil traffic in the first half of 2023, up from 30% in 2021. Most of those export volumes were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



LNG shipments

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



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

Data source: U.S. Energy Information

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

Principal contributors: Candace Dunn, Justine Barden

Dec 18, 2023 06:39:39

OIL DEMAND MONITOR: China Flashes Warning Signs; Supply in Focus

Chinese demand growth to slow sharply next year, survey finds
Market frets that swelling supplies will outpace demand gains

By John Deane

(Bloomberg) -- Oil consumption looks set to hit a fresh all-time high in 2023 and possibly next year too, but that hasn't stopped futures prices plunging to the lowest in more than five months as the market frets over the prospect for supply growth to outpace gains in demand.

Traders have focused in recent weeks on surging production from nations outside the OPEC+ alliance. That's in addition to long-standing worries about significant pockets of weakness in some major industrialized nations and continuing concerns about high interest rates and the lackluster economic performance of several key consuming nations.

There are plenty of warning signs about the trajectory for demand.

Global demand growth is slowing sharply as key economies weaken, the International Energy Agency said last week as it slashed estimates for this quarter. The Paris-based adviser sliced almost 400,000 barrels a day from assessments of consumption growth for the final three months of 2023, and continued to expect that growth rates will decelerate dramatically next year. Soaring production from the US, Brazil and Guyana is offsetting production cuts by Saudi Arabia and its OPEC+ allies.

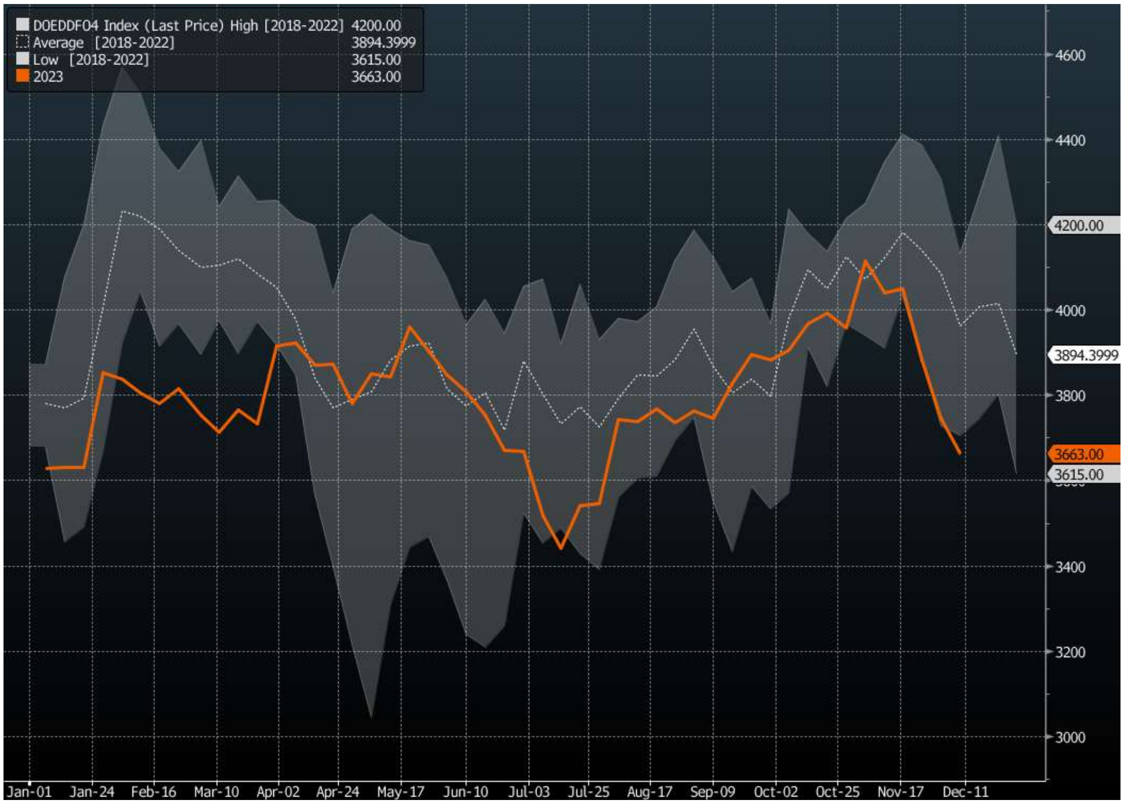
"Evidence of a slowdown in oil demand is mounting," the IEA said in its monthly report on Thursday. "The increasingly apparent loss of oil demand growth momentum reflects the deterioration in the macroeconomic climate."

China, the biggest crude importer, saw total inbound shipments drop to a seven-month low in November as refiners grappled with limits on fuel exports and poor margins. The Asian powerhouse will see oil demand growth slowing next year, as the impact of pent-up appetite for travel and consumption following a three-year pandemic begins to fade away. The country will consume an additional 500,000 barrels a day in 2024, according to the median of estimates from 12 industry consultants and analysts surveyed by Bloomberg – less than a third of the increase in 2023.

Read More: China's Oil Demand Growth to Cool in 2024 as Recovery Fades

India saw a 2% year-on-year drop in oil products consumption in November, when demand also dipped on a month-on-month basis. Demand growth in the country is set to slow next year as the spurt in consumption that followed the pandemic fades, echoing China's slowdown. Consumption will expand 150,000 barrels a day in 2024, down from about 290,000 barrels a day from 2021 to 2023, according to Rystad Energy.

In the US, the biggest oil user, four-week average implied distillates demand fell again in the latest weekly data, bringing total declines close to 400,000 barrels a day in three weeks. Consumption has now fallen to its lowest seasonal level since 2009, thanks to another warm winter and weak trucking freight demand.



US distillates see seasonal weakness

On the supply side, US crude production is running at record levels near 13 million barrels a day. Last week, the US Energy Information Administration raised its 2023 oil production forecast, saying that output is expected to reach an average 12.93 million barrels a day.

The prospect of swelling supplies from outside OPEC+ doubtless fed into the alliance's Nov. 30 decision to deepen production curbs, with members of the group agreeing to make 1 million barrels a day of additional oil-supply cuts alongside the extension into next year of Saudi Arabia's voluntary output reduction of the same size.

The OPEC+ production curbs can "absolutely" continue past the first quarter if needed, Saudi Energy Minister Prince Abdulaziz bin Salman said later. State-owned Saudi Aramco subsequently slashed its official crude oil selling prices to Asia by the most since February, in another apparent acknowledgment of market weakness.

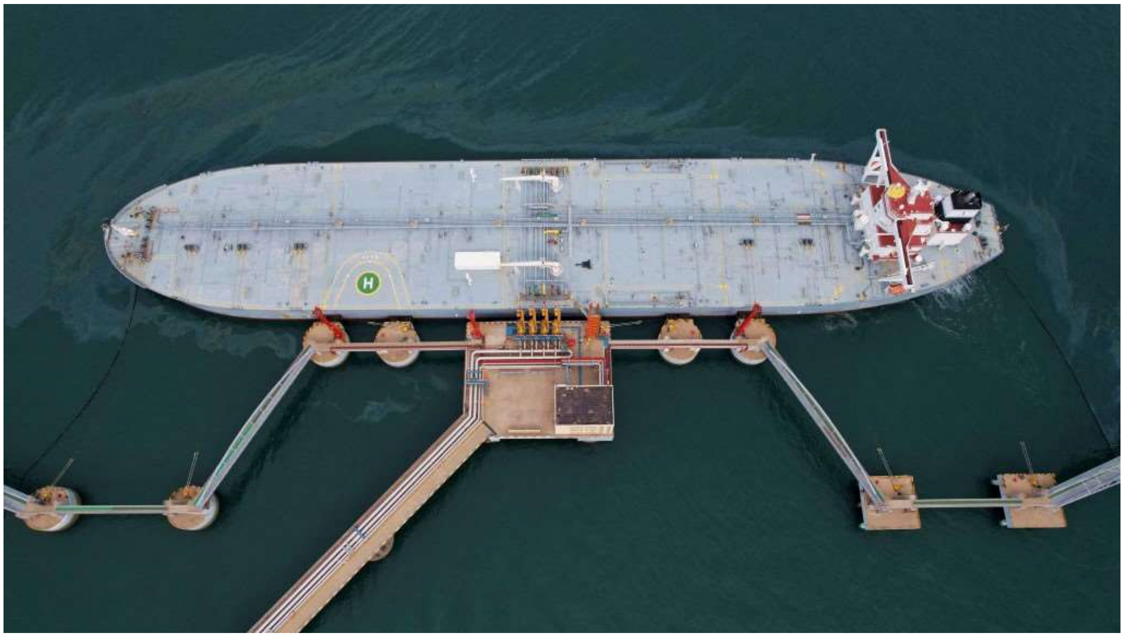
Read More: US Shale's Surprise Oil-Production Surge Poses Threat to OPEC

Still, the outlook for demand remains complex. Data from FlightRadar24 have shown month-on-month dips in the number of flights globally, though the figures remain well ahead of year-ago and pre-pandemic levels. In the US, a record 7.5 million people are expected to fly from Dec. 23 to Jan. 1, marking the busiest year-end travel season since the American Automobile Association began tracking the data in 2000. More air travel may not translate into a similar surge in the country's jet fuel consumption thanks to larger, more efficient airplanes.

On the highways, drivers clocked up more kilometers year-on-year in November in four out of six European and South American countries where toll roads operator Mundys has networks. In the UK, sales of gasoline and diesel grew by more than 7% month-on-month in the latest government figures for early December, a trend backed up by separate data on vehicle usage.

In its latest monthly oil market report, OPEC maintained an upbeat view on demand, projecting that global consumption will climb by about 2.2 million barrels a day next year, a roughly 2% growth, to average just over 104 million barrels a day.

In its equivalent report, the IEA attributed about 80% of oil demand growth this year to China. The Asian nation's apparent oil demand rose 3.6% year-on-year to 14.32 million barrels a day in November, according to data compiled by Bloomberg.



China's oil demand is the "biggest unknown" for 2024, according to Louise Dickson, an analyst at Rystad Energy. Source: Bloomberg

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

Demand Measure	Location	%vs 2022	% vs 2021	% vs 2020	% vs 2019	% m/m	Freq	Latest Date	Latest Value	Source
Gasoline product supplied	US	+7.3	-6.5	+11	-0.3	-1	w	Dec. 8	8.86m b/d	EIA
Distillates product supplied	US	+0.1	-23	-5.8	+1	-8.3	w	Dec. 8	3.77m b/d	EIA
Jet fuel product supplied	US	+6.1	+17	+63	+18	+4.4	w	Dec. 8	1.87m b/d	EIA
Total oil products supplied	US	+5.6	-9.1	+9	+15	+5	w	Dec. 8	21.08m b/d	EIA
Car use	UK	+13	+6.6	+17	-3	+5.4	m	Dec. 11	97	DfT
Heavy goods vehicle use	UK	+1	-6.3	-5.4	+5	+1	m	Dec. 11	105	DfT
All motor vehicle use index	UK	+11	+5.2	+13	+1	+4.1	m	Dec. 11	101	DfT
Gasoline (petrol) avg sales per filling station	UK	+7.6	+7.3	+34	+1.9	+7.1	m	Week to Dec. 3	7,322 liters/d	BEIS
Diesel avg sales per station	UK	+0.7	-6.1	+3.8	-11	+7.1	m	Week to Dec. 3	9,251 liters/d	BEIS
Total road fuels sales per station	UK	+3.6	-0.6	+15	-5.8	+7.1	m	Week to Dec. 3	16,574 liters/d	BEIS
Diesel sales	India	-3				-1.4	m	November	7.53m tons	PPAC
Gasoline sales	India	+9.4				-0.4	m	November	3.13m tons	PPAC
Jet fuel sales	India	+12				-0.1	m	November	690k tons	PPAC
LPG sales	India	+1				-0.4	m	November	2.49m tons	PPAC
Total oil products	India	-2				-2.8	m	November	18.7m tons	PPAC

Naphtha	Germany	-9.9			+4	-0.1 m	September	733k tons	BAFA
Gasoline	Germany	+18			-0.7	+4.1 m	September	1.51m tons	BAFA
Diesel	Germany	-0.3			-13	-1.4 m	September	2.75m tons	BAFA
Heating oil	Germany	-41			-43	-3.7 m	September	720k tons	BAFA
LPG	Germany	-11			-26	-15 m	September	230k tons	BAFA
Jet fuel	Germany	+6.9			-2.7	-0.3 m	September	874k tons	BAFA
Total oil product sales	Germany	-6.4			-16	-0.1 m	September	7.07m tons	BAFA
Gasoline deliveries	Spain	+7.5				-7.9 m	November	514k m3	Exolum
Diesel (and heating oil) deliveries	Spain	-1.4				+1.6 m	November	2,253k m3	Exolum
Jet fuel deliveries	Spain	+17				-22 m	November	507k m3	Exolum
Total oil products deliveries	Spain	+2.4				-4.5 m	November	3,274k m3	Exolum
Road fuel sales	France	-0.6				+4.1 m	October	4.151m m3	UFIP
Gasoline sales	France	+13				m	October	n/a	UFIP
Road diesel sales	France	-5.1				m	October	n/a	UFIP
Jet fuel sales	France	+11			-7.5	+0.9 m	October	702k m3	UFIP
All petroleum products sales	France	+1.7				+5.7 m	October	4.835m tons	UFIP
All vehicles traffic	Italy	+1				-5 m	November	n/a	Anas
Heavy vehicle traffic	Italy	unch.				-2 m	November	n/a	Anas
Gasoline sales	Italy	+3.8			+8.8	+0.4 m	October	706k tons	Energy Ministry
Transport diesel sales	Italy	+0.9			-5.6	+0.5 m	October	2.01m tons	Energy Ministry
Diesel/gasoil sales	Italy	+2.6			-7.6	+2.7 m	October	2.31m tons	Energy Ministry
LPG sales	Italy	-3.3			-14	+0.9 m	October	235k tons	Energy Ministry
Jet fuel sales	Italy	+26			-1.8	-5.9 m	October	432k tons	Energy Ministry
Total oil product sales	Italy	+4.5			-8.7	+1.3 m	October	4.51m tons	Energy Ministry
Gasoline consumption	Portugal	+8.1	+7.2	+23	+15	+3.3 m	October	99,522 tons	ENSE
Diesel consumption	Portugal	+3.9	+1.1	+5	-2.7	+8.5 m	October	425,287 tons	ENSE
Jet fuel consumption	Portugal	+11	+55	+192	+11	-7.2 m	October	159,665 tons	ENSE
% change in toll roads kms traveled	France	-1.8			-0.1	m	November	n/a	Mundys
% change in toll roads kms traveled	Italy	+1.8			+3.2	m	November	n/a	Mundys
% change in toll roads kms traveled	Spain	+3.2			-4.2	m	November	n/a	Mundys
% change in toll roads kms traveled	Brazil	+8.6			+7	m	November	n/a	Mundys
% change in toll roads kms traveled	Chile	-0.8			+16	m	November	n/a	Mundys
% change in toll roads kms traveled	Mexico	+2.6			+13	m	November	n/a	Mundys

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

City congestion:

Measure	Location	Dec. 4	Nov. 27	Nov. 20	Nov. 13	Nov. 6	Oct. 30	Oct. 23	Oct. 16	Oct. 9	Oct. 2
Congestion	Tokyo	130	131	136	129	122	124	123	123	117	124
Congestion	Taichung	133	130	129	127	120	119	122	120	129	132
Congestion	Jakarta	110	107	104	101	99	95	90	78	93	82
Congestion	Mumbai	74	69	47	78	85	67	81	78	81	76
Congestion	Philadelphia	106	95	111	96	103	103	109	117	108	112
Congestion	Seattle	101	70	105	103	99	100	96	103	100	106
Congestion	London	131	129	123	124	120	96	114	116	117	120
Congestion	Rome	118	116	112	122	91	119	119	120	123	119
Congestion	Madrid	125	122	119	92	89	116	130	83	120	94
Congestion	Paris	124	126	128	122	95	120	123	104	118	117
Congestion	Berlin	118	110	114	103	97	97	109	107	87	99
Congestion	Mexico City	#N/A	#N/A	97	94	63	73	76	80	79	79
Congestion	Rio de Janeiro	94	98	83	102	77	83	90	71	90	85

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

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

The congestion levels relative to 2019 averages have changed throughout the table from previous versions of this story. BNEF has revised the way it calculates annual average congestion for 2019 from the TomTom data to bring pre-pandemic traffic in early 2020 closer to the 2019 levels. For a more detailed explanation of the methodology change, please contact Wayne Tan at BNEF.

Due to data sourcing issues, some cities are not always available. Where this occurs we have used a nearby alternative in the same country. All historical data are for the named city. In today’s story, Taipei has been replaced with Taichung; New York has been replaced with Philadelphia; Los Angeles has been replaced with Seattle; Sao Paulo has been replaced with Rio de Janeiro

Also see this story for notes on recent data feed issues.

Air Travel:

Measure	Location	vs 2022	vs 2021	vs 2020	vs 2019	m/m	w/w	Freq.	Latest Date	Latest Value	Source
		changes shown as %									
All flights	Worldwide	+11	+15	+30	+6.9	-7.6	+0.7	d	Dec. 11	194,905	Flightradar24
Commercial flights	Worldwide	+18	+29	+72	+5.8	-0.6	+0.8	d	Dec. 11	119,032	Flightradar24
Seat capacity per week	Worldwide	+11	+23	+75	-5		+1.3	w	Dec. 11 week	104.7m seats	OAG
Air traffic (flights)	Europe				-8.5	+0.2	+3.9	d	Dec. 11	25,763	Eurocontrol
Airline passenger throughput (7-day avg)	US	+6	+21	+222	+3	-8	-1	w	Dec. 10	2.18m	TSA
Air passenger traffic per month	China	+253	+44	+12	-1.6	+4.9		m	October	56.1m	CAAC
Heathrow airport passengers	UK	+10	+100	+720	-1.7	-12		m	November	6.13m	Heathrow
Rome % change in passengers carried	Italy	+31			-0.9			m	November	n/a	Mundys

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

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

Refineries:

Measure	Location	vs 2022	vs 2021	vs 2019	m/m chg	Latest as of Date	Latest Value	Source
			Changes are in ppt unless noted					
Crude intake	US	-0.2%	+2.7%	-3%	+4.5%	Dec. 8	16.1m b/d	EIA
Utilization	US	-2	+0.4	-0.4	+4.1	Dec. 8	90.2%	EIA
Utilization	US Gulf	-3.9	+0.4	-2.9	+3.2	Dec. 8	90.4%	EIA
Utilization	US East	+0.1	+1.7	+24	+16	Dec. 8	91.5%	EIA
Utilization	US Midwest	+2.1	-0.6	-0.2	+6.7	Dec. 8	93.6%	EIA
Utilization (indep. refs)	Shandong, China	-6.4	-5.2	-10.1	+3.8	Dec. 15	59.78%	Oilchem

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

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--With assistance from Prejula Prem, Bill Lehane, Grant Smith and Julian Lee.

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https://www.trucking.org/news-insights/ata-truck-tonnage-index-decreased-1-november-0

ATA Truck Tonnage Index Decreased 1% in November

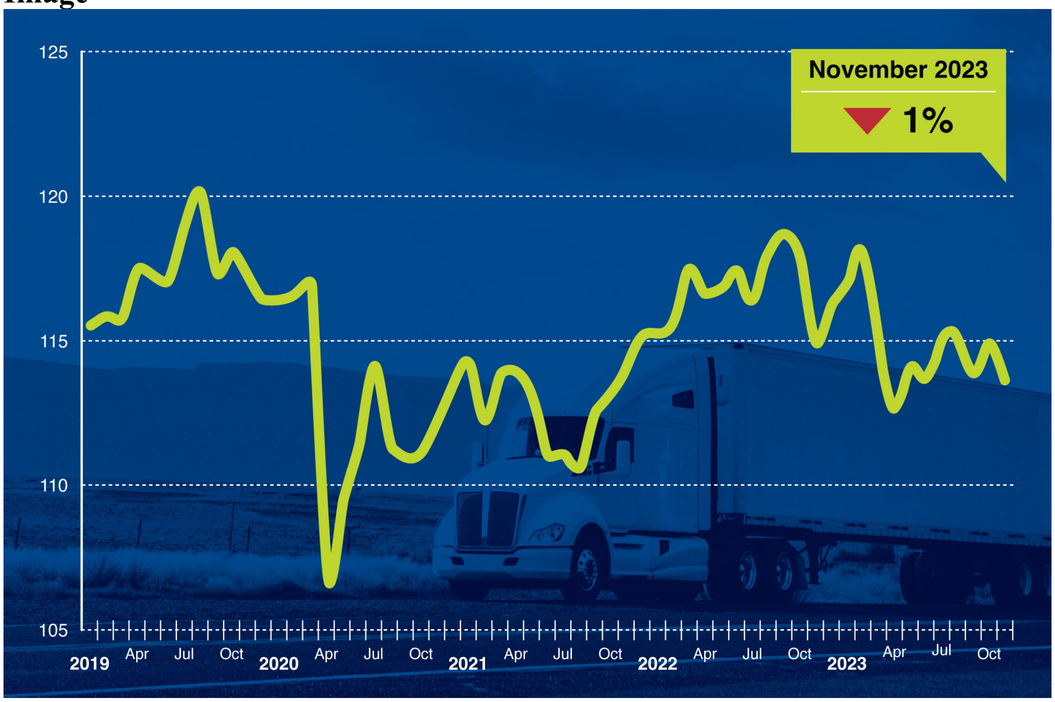
Media Contact:
Sean McNally

Dec 19, 2023

Index 1.2% Below November 2022

American Trucking Associations' advanced seasonally adjusted (SA) For-Hire Truck Tonnage Index decreased 1% in November after increasing 0.8% in October. In November, the index equaled 113.7 (2015=100) compared with 114.9 in October.

Image



"We continued to see a choppy 2023 for truck tonnage into November," said **ATA Chief Economist Bob Costello.** "It seems like every time freight improves, it takes a step back the following month. While year-over-year comparisons are improving, unfortunately, the freight market remains in a recession. Looking ahead, with retail inventories falling, we should see less of a headwind for retail freight, but I'm also not expecting a surge in freight levels in the coming months."

October's gain was revised down slightly from our November 21 press release.

Compared with November 2022, the SA index fell 1.2%, which was the ninth straight year-over-year decrease. In October, the index was down 2.4% from a year earlier.

The not seasonally adjusted index, which represents the change in tonnage actually hauled by the fleets before any seasonal adjustment, equaled 113.2 in November, 5.1% below the October level (119.3). In calculating the index, 100 represents 2015. ATA's For-Hire Truck Tonnage Index is dominated by contract freight as opposed to spot market freight.

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

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

https://www.latimes.com/environment/story/2023-12-14/california-energy-officials-vote-to-extend-diablo-canyon-operations

California energy officials vote to extend Diablo Canyon nuclear plant operations

Pacific Gas & Electric's Diablo Canyon Power Plant is the only operating nuclear plant in California. Gov. Gavin Newsom supports keeping the plant along the coast near San Luis Obispo operating past its planned shutdown date of 2025.

(Brian van der Brug / Los Angeles Times)

BY TONY BRISCOESTAFF WRITER

DEC. 14, 2023 **UPDATED** 6:07 PM PT

California energy officials have voted to extend the operation of the Diablo Canyon Power Plant through 2030, extending the life span of the state's last nuclear plant an additional five years.

The California Public Utilities Commission approved a proposal to keep Diablo Canyon's twin reactors online, overturning an earlier agreement to close the plant in 2025.

Three commissioners — Alice Busching Reynolds, John Reynolds and Karen Douglas — voted in favor. Commissioner Darcie Houck abstained and Commissioner Genevieve Shiroma was absent.

Thursday's decision is expected to preserve a large bloc of the state's zero-emission power supply. But it also raises concerns over the high cost and potential safety issues associated with operating an aging nuclear power plant.

The state utilities commission acknowledged that the costs associated with the plan were still unknown but were expected to exceed $6 billion. A federal safety review will also be conducted.

State energy commissioners emphasized that the extension should serve as a bridge to renewable energy and that the plant was not expected to operate beyond 2030. The decision, they said, was intended to bolster the reliability of California's grid, which has narrowly avoided rolling blackouts during heat waves in recent years.

"The short-term extension of the power plant as proposed is a transitional strategy to help California weather the challenges of the energy transition, including the weather and climate extremes that we have experienced ... and the cost challenges that we face in scaling up the clean energy transition so quickly," Douglas said ahead of the vote. "So this is an opportunity for us to help bridge some years."

Co., the plant's operator, lauded the commission's decision, saying it will help provide the state with a dependable, emission-free source of energy.

"We're grateful for the opportunity to answer the state's call to ensure electrical reliability for Californians," said Suzanne Hosn, a spokesperson for PG&E.

At a state meeting filled with heated discourse, supporters argued that California needed the power supply from Diablo Canyon to avert outages and meet the state's climate goals. The plant supplies about 9% of the state's electricity and 17% of the state's zero-emission power.

"It was methodically determined that Diablo Canyon is in fact integral to the California electricity reliability," said Brendan Pittman, a Berkeley resident, who supported the proposal. "It contributes substantially to California's zero-emission targets and the costs for continued operation are not, quote, too high to justify."

But a chorus of critics warned that the extension could bring rate hikes from PG&E.

Opponents also argued that the plant's proximity to several fault lines makes it susceptible to earthquakes, and a significant risk.

The plant, which sits along the Pacific Ocean about 10 miles outside of San Luis Obispo, opened in 1985. A 46-page report by Digby Macdonald, a professor at UC Berkeley's Department of Nuclear Engineering, suggested one of the plant's nuclear reactors "poses an unreasonable risk to public health and safety due to serious indications of an unacceptable degree of embrittlement," or deterioration due to prolonged exposure to radiation.

"Inside the aging Diablo Canyon reactors resides an astronomical quantity of radioactivity," said Daniel Hirsch, a retired director of the Program on Environmental and Nuclear Policy at UC Santa Cruz. "It only stays inside if it's constantly cooled. Any disruption in that, an earthquake or accident, can cause a meltdown releasing enough radioactivity to contaminate a substantial portion of California for generations."

"If you approve overturning the Diablo shutdown agreement, you risk culpability for a nuclear catastrophe," he continued.

Gov. Gavin Newsom has argued the state still needs the nuclear plant to help keep the lights on as global warming drives higher demand for air conditioning, and as California increasingly relies on solar farms that stop generating electricity after sundown.

Nuclear power plants do not produce planet-warming CO2 emissions. However, they do produce radioactive waste from spent nuclear fuel. Exposure to this waste can damage DNA and increase cancer risk.

The federal government has long delayed its plans to establish a national repository for nuclear waste, forcing nuclear plants, including Diablo Canyon, to keep their waste on site in large steel-and-cement casks.

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Tony Briscoe is an environmental reporter with the Los Angeles Times. His coverage focuses on the intersection of air quality and environmental health. Prior to joining The Times, Briscoe was an investigative reporter for ProPublica in Chicago and an environmental beat reporter at the Chicago Tribune.

https://enphase.com/blog/employees/dec-2023-message-from-our-ceo

December 18, 2023

Message from our CEO to Enphase employees

To all employees:

I am writing to share details about difficult changes that we are making in our company to address the challenging macroeconomic environment while continuing to invest in our strategic priorities. Over the last few months, we have made significant efforts to reduce our operating costs, but we have more work to do to right-size our operations and become leaner and more efficient.

We have decided to reduce our global workforce by approximately 10%, impacting approximately 350 contractors and employees, streamlining our operations by ceasing contract manufacturing operations in two locations—Timisoara, Romania and Wisconsin, United States—and resizing other contract manufacturing sites. In addition, we will continue our hiring and travel freeze through 2024 and cut discretionary spending on several other fronts.

I take full accountability for these decisions and how we got here. I understand this is difficult for all of us, especially when it impacts our valued colleagues and friends who are departing. We will treat our departing colleagues with the utmost respect and empathy, provide them with severance packages, engage in consultation where required, and support them with their transitions. I want to express my personal appreciation for the meaningful contributions they have made, and I wish them all the best in their future endeavors.

The history

When I joined the company in April and became CEO in September 2017, we faced significant challenges to the company's existence. With the strong and disciplined management team we put together, we created a financial operating model of 35-15-20 (GM-OpEx-OpInc as a percentage of revenue on a non-GAAP basis) and worked meticulously to implement actions to develop a historic turnaround for the company.

Over the last 12 months, the solar market has seen a lot of turbulence worldwide. In the United States, high interest rates have caused a significant drop in consumer demand, while California's NEM 3.0 transition continues to create further uncertainty. We saw tremendous growth in Europe until the middle of 2023, when demand slowed, and interest rates led to high inventory levels.

These challenges have caused our topline revenue to decrease. In response, we must right-size the company and get our non-GAAP operating expenses to be within a range of $75 million to $80 million per quarter in 2024. We expect these changes to allow us to get our non-GAAP operating expenses closer to our financial operating model.

During this challenging phase, we must return to our basics, and become leaner and more efficient. Our overall strategy is still the same—to make best-in-class home energy systems, continue to innovate on new technology, and deliver high quality products and a superior customer experience.

The changes

We looked at several other areas to cut our spending and increase our efficiency before making the tough decision to reduce headcount. Keeping our singular focus on delivering high-quality home energy systems, we decided to consolidate our product and engineering operations across business units for efficiency and strategic alignment.

Our worldwide microinverter contract manufacturing operations currently have a combined capacity of approximately 10 million units per quarter. We are planning to reduce that capacity to approximately 7.25 million units per quarter to be closer aligned to the expected demand. To that end, we are ceasing operations at our contract manufacturing locations in Timisoara, Romania and Wisconsin, United States, and resizing our other contract manufacturing sites. We will focus on manufacturing microinverters in the United States with our two existing contract manufacturing partners in South Carolina and Texas, and the manufacturing equipment currently located in Timisoara and Wisconsin will be redeployed to these two facilities. Once these two facilities have fully ramped production, approximately 5 million of the 7.25 million units of capacity will be in the United States.

We are looking to cut expenses further by consolidating facilities across our worldwide sites to reduce our real-estate footprint, minimizing capital purchases, and, with limited exceptions, extending the hiring and travel freeze through 2024. We are also incorporating tighter profitability criteria in our employee cash bonus program. While we do not expect to give salary increases in 2024 (with limited exceptions), we will maintain the promotion process, and we expect to award annual stock grants to employees earlier in the year than in prior years.

All of these actions together will result in a one-time restructuring and asset impairment charges of approximately $16 million to $18 million for the company.

Implementation

We have notified all affected employees with the exception of some unique cases, are working to provide relevant information to them as quickly as possible, and will do what we can to support them through this transition.

In the United States,

- We will pay employees until the last working day, generally January 5, 2024, with exceptions to support business or individual needs (the “notification period”). Employees may receive pay in lieu if their last working day is prior to the expiration of the notification period;
- We will offer severance packages to our employees that will include cash and vesting of certain restricted stock units (RSU);
- We will continue to provide health-care benefits for participating employees until the end of the month of the last working day, and employees may elect to continue coverage (at their own expense) under COBRA thereafter; and
- We will allow employees to use company time to seek their next opportunity during the notification period.

In countries outside the United States, we will support employees and follow separate processes in line with local practices and employment laws.

We are reducing spending in every department by reducing headcount, non-people related expenditures, or both. The layoff is not a reflection of employee performance but is a necessary, undesirable action.

Our way forward

It is a tough moment for all of us. Some of our talented colleagues and friends are leaving us. They have helped us build one of the most innovative solar companies in the world. Together, we have made huge advancements towards advancing a sustainable future for all. I thank those of you who are departing for your service to Enphase and wish you well in continuing to do great work at other places.

For those staying, I understand there is worry and uncertainty about the future. What does 2024 have in store for us? Our focus in the first half of 2024 will be on clearing the excess inventory in the channel worldwide. However, we see that there is greater confidence in the U.S. Federal Reserve cutting the interest rate next year, and we hope this leads to growth in the back half of the year.

Our strategy remains unchanged, and our purpose and values are clear. We will continue to focus on delivering the best-in-class home energy systems around the world. Let's continue to innovate, uphold the highest quality, and provide excellent customer experience. I am confident that we will come out of this downturn stronger and more resilient than before.

Badri Kothandaraman
President and CEO
Enphase Energy, Inc.

Audi CEO Nudges Back EV Model Rollout Amid Market Wobbles

2023-12-18 10:09:33.822 GMT

By Monica Raymunt

(Bloomberg) -- Audi is paring back an ambitious rollout of electric models to avoid burdening factories and dealers amid slower growth in EV sales.

“We first looked at what order and density of launches the organization could handle,” new Chief Executive Officer Gernot Döllner said in an interview in Audi’s headquarters in Ingolstadt, Germany. “In the end, we decided to spread it out to not overwhelm the team and the dealerships.”

A key profit center for Volkswagen AG, Audi plans to bring out 20 models by 2026, with half of them fully electric.

The task is urgent because Audi’s portfolio is growing stale as rivals Mercedes-Benz Group AG and BMW AG prepare to bring out their next generation of EVs from mid-decade. The luxury-car maker is looking back on a few torpid months culminating in VW CEO Oliver Blume in June singling out Audi as falling short of its potential. The same month, he swapped out Audi’s CEO with Döllner, who has worked with Blume at Porsche, with a task of boosting long-term operating return to 13% from around 9%.

Audi’s Q6 e-tron, repeatedly pushed back by issues at VW’s in-house software unit Cariad, will kick off the model offensive when it rolls off production lines in the second quarter. The car will be the first coming off a new platform underpinning several new vehicles. Another electric model and two combustion engine cars round out the new launches for next year, and a third combustion-engine model is planned for 2025.

Read more: New Audi CEO’s Big Task Is Cleaning Up Years of Mistakes

Audi’s troubles partly stem from the long-standing hurdles in selling EVs as the industry pushes into a phase of broader adoption: incumbent carmakers are still struggling to ramp up a competitive lineup that delivers acceptable returns, and consumers are put off by high prices and patchy infrastructure.

Regulatory shifts on the combustion-car phaseout and influx of attractive Chinese-made EVs are adding to the mix. Carmakers like Audi or BMW continue to rely on combustion-engine power for their bottom lines, leaving the field to Tesla Inc. and increasingly BYD Co.

“The advantage of EVs is becoming visible to consumers step by step,” 54-year-old Döllner said. “With this triad - our new EVs, a new generation plug-in Hybrids and internal combustion engine models - we’re robustly and flexibly positioned for the transition phase.”

Getting Audi back on track is crucial for parent Volkswagen, where premium brands like the maker of the Q7 SUV and Porsche generate the bulk of earnings. The premium brand group — also including Lamborghini and Bentley — was VW's biggest source of profit with earnings of €7.6 billion ($8.3 billion) with Audi making up the bulk.

This week, VW's top managers are gathering in Berlin for updates on plans to squeeze more profit from the underperforming VW brand and moves to stop the slide in China, the company's most important market.

Audi has lagged competitors on transitioning a lineup that's heavily skewed to diesel engines with a series of hurdles getting in the way. The issues, ranging from a dealer dispute in China, the heavy burden of the diesel-emissions cheating scandal and more recently to problems building software, have capped growth for the brand.

Blume, in charge at VW for over a year since the ouster of Herbert Diess, is spearheading several initiatives to regain traction particularly in China, where VW products haven't kept pace with consumer tastes for large screens and connectivity.

Read more: Audi, SAIC EV Deal a 'Coming of Age' for Chinese Automaking

To combat the EV slide in China, Audi and long-standing Chinese partner SAIC Motor Corp Ltd. in July agreed to partner on developing EVs, marking a turning point for Chinese automaking that's so far been led by learning from foreign manufacturers. The pair will work on vehicle underpinnings to accelerate Audi's electrification and protect market share.

"At the moment, we play a relevant role especially in the combustion engine segment," Döllner said. "Our task with both partners is to make the Audi brand a relevant player in the EV segment as well."

Read more: Germany Frets Volkswagen Is Heading Down the Road to Nowhere

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https://www.freep.com/story/money/cars/general-motors/2023/12/20/gm-buick-dealerships-buyouts/71978066007/

GM buys out nearly half of its Buick dealers across the country, who opt to not sell EVs

**Jamie L. LaReau**

Detroit Free Press

General Motors said nearly half its Buick dealers took buyouts this year rather than invest in selling and servicing electric vehicles as the automaker's brands transitions to all electric by 2030.

That means GM will end 2023 with about 1,000 Buick stores nationwide, down 47% from where it started the year.

Late last year, Buick said it would be asking dealers to commit a minimum investment of $300,000 to $400,000 to prepare their stores to sell and service EVs.

"Buick is transforming, launching the best vehicles the brand has ever had and is the fastest growing mainstream brand in 2023," said GM spokesman Sean Poppitt in an email this week to the Detroit Free Press. "This all needs to be supported by the best customer experience in the transition to EVs. As stated before, this year we've given dealers who are not aligned with Buick's future to exit voluntarily in a respectful and structured way; with the full support of our National Dealer Council."

In Michigan, GM had about 100 Buick dealerships in December 2022. At that time, a metro Detroit Buick dealer told the Free Press that all the metro Detroit Buick dealers were making the investment to sell and service future EVs, but some smaller dealers in rural areas were taking the buyout offer. Other dealers echoed that information.

Poppitt declined to confirm how many Buick dealerships have taken a buyout in Michigan to date.

"We’re not breaking it down state by state, but Michigan is a critical market for Buick and we are well covered to support our local customers," Poppitt said. "Nearly 90% of the U.S. population remains within approximately 25 miles of a Buick dealership."

Poppitt said with nearly half the dealerships gone, Buick sales are still up almost 60% this year through November over the year-ago period, which means "the average dealer throughput tripled – while reducing 47% of our dealer points. These are compelling numbers; we have a leaner, stronger and more effective network."

The buyout program remains open and is voluntary. The brand plans to show its first EV next year and it will be an SUV. All future new electric nameplates will use the Electra name followed by a number.

In 2020, Cadillac offered a similar buyout program for its dealers. Nationally, 170-180 of Cadillac's 870 dealers, or about 20%, took the buyouts that ranged from $300,000 to $700,000 and gave up their franchise rather than make the investment for tools, training, equipment and charging stations to sell and service EVs, a person who's familiar with Cadillac's plan told the Free Press in December 2020.

Contact Jamie L. LaReau: jlareau@freepress.com. Follow her on Twitter @jlareauan.

https://www.freep.com/story/money/cars/ford/2023/12/21/ford-dealers-ev-sales-service-program/71991775007/

Ford says half its dealers are waiting to opt in on EV sales, service

Phoebe Wall Howard

Detroit Free Press

Half the Ford dealers in the nation, or some 1,550, have chosen to stick with selling hybrid and internal combustion engine vehicles only in 2024, waiting to decide whether to make the investments needed to sell and service electric vehicles, the Detroit Free Press has learned.

"EV adoption rates vary across the country and we believe our dealers know their market best," Ford spokesman Marty Gunsberg told the Detroit Free Press. "As Ford dealers have completed their own local market assessments, enrollments for 2024 are just over 50% of the network, placing 86% of the population within 20 miles of a Ford dealership that can sell and service a Ford EV."

The latest data provided by Ford indicates a cooling off period with dealers. A year ago, the Free Press reported that Ford CEO Jim Farley had "secured commitments" from two of every three dealers to go all-in on selling EVs.

At that time, Ford said it had enrolled 1,920 dealers in the voluntary Model e Program for the initial 2024 to 2026 periods. Some dealers later withdrew, Gunsberg confirmed.

Customers shopping for electric vehicles will soon see signage that identifies dealers as Model e Certified Elite or Model e Certified. This is significant because it also tells the public the location of fast chargers needed to "fuel up" electric vehicles, Ford said. Finding charging stations for EVs has been an ongoing challenge for consumers. This secures additional sites.

Initially, Ford said its dealers needed to decide whether they wanted to pay an estimated $500,000 to $1.2 million to install the charging infrastructure to achieve the special certification status. If dealers don't have charging stations, they can't service the electric vehicles. A second period of certification will take place in 2027, after Ford has begun releasing its new electric vehicle lineup.

What was presented as a conservative dollar amount needed to make the upgrades ended up triggering a dealer backlash and even lawsuits challenging the program. The automaker has reduced the number of charging stations required per dealership, lowering dealer investments. Ford said installation costs vary by dealer site.

The automaker declined to provide additional detail of which dealerships would move ahead with EV investment but the company indicated that dealerships in EV-friendly states such as California are moving forward while places including the Dakotas are slower to plunge into the EV commitment.

Unlike General Motors, Ford is not doing dealership buyouts if a dealer wants to avoid the EV market, Gunsberg said. The Free Press reported Wednesday that half the Buick dealerships or about 1,000 will opt out of moving forward with GM as it transitions to an all-electric plan by 2035.

Ford, like GM, is requiring its dealerships to invest hundreds of thousands of dollars to sell and service vehicles that operate on a completely different power system.

In recent weeks, Ford has scaled back on its Ford F-150 Lightning production and reduced additional EV investments for the time being to accommodate slower-than-expected demand for its EV products.

Contact Phoebe Wall Howard: 313-618-1034 or phoward@freepress.com. Follow her on X @phoebesaid.

IFIC Monthly Investment Fund Statistics – November 2023
Mutual fund and exchange-traded fund (ETF) assets and sales

December 20, 2023 (Toronto) – The Investment Funds Institute of Canada (IFIC) today announced investment fund net sales and net assets for November 2023.

Mutual fund assets totalled $1.893 trillion at the end of November. Assets increased by $85.1 billion or 4.7 per cent since October. Mutual funds recorded net redemptions of $8.6 billion in November.

ETF assets totalled $369.3 billion at the end of November, up by $24.0 billion or 6.9 per cent from October 2023. ETFs recorded net sales of $5.1 billion in November.

November insights

- Both mutual funds and ETFs experienced asset growth after three months of consecutive decline.
- Year to date, mutual fund assets increased by $83.2 billion or 4.6 per cent, while ETF assets increased by $55.6 billion or 17.7 per cent.
- Even though mutual fund net assets increased, November was the ninth consecutive month since March in which mutual fund net sales were negative.
- Money market asset classes saw positive net sales for mutual funds. Speciality asset classes (primarily driven by alternative funds) also saw positive net sales for mutual funds.
- Every major ETF asset class generated positive net sales in November. Of the asset classes, equity funds accounted for the largest inflows at 56.0 per cent of total net sales.

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

Asset class	Nov 2023	Oct 2023	Nov 2022	YTD 2023	YTD 2022
Long-term funds					
Balanced	(6,584)	(8,569)	(5,061)	(52,342)	(25,024)
Equity	(3,254)	(4,142)	(3,015)	(23,201)	(5,392)
Bond	(423)	(1,028)	(1,112)	6,204	(11,624)
Specialty	397	199	(10)	3,368	1,203
Total long-term funds	(9,865)	(13,540)	(9,197)	(65,971)	(40,837)
Total money market funds	1,227	997	562	14,035	5,394
Total	(8,638)	(12,544)	(8,636)	(51,936)	(35,443)

Mutual fund net assets ($ billions)*

Asset class	Nov 2023	Oct 2023	Nov 2022	Dec 2022
Long-term funds				
Balanced	881.6	845.5	909.6	880.6
Equity	699.0	659.3	679.4	649.6
Bond	235.4	228.3	226.3	222.7
Specialty	26.6	25.5	22.4	22.2
Total long-term funds	1,842.6	1,758.7	1,837.6	1,775.1
Total money market funds	50.2	48.9	32.7	34.5
Total	1,892.8	1,807.6	1,870.3	1,809.6

* See below for important information about this data.

ETF net sales/net redemptions ($ millions)*

Asset class	Nov 2023	Oct 2023	Nov 2022	YTD 2023	YTD 2022
Long-term funds					
Balanced	196	100	22	1,587	1,509
Equity	2,835	551	1,524	10,673	12,031
Bond	582	1,410	1,343	10,117	5,778
Specialty	1,003	102	216	2,172	1,472
Total long-term funds	4,615	2,163	3,105	24,549	20,790
Total money market funds	452	687	1,088	9,299	7,625
Total	5,066	2,850	4,193	33,848	28,415

ETF net assets ($ billions)*

Asset class	Nov 2023	Oct 2023	Nov 2022	Dec 2022
Long-term funds				
Balanced	14.5	13.5	12.4	12.0
Equity	225.1	208.0	202.9	194.9
Bond	90.4	86.3	77.8	80.4
Specialty	13.7	12.2	10.6	10.2
Total long-term funds	343.7	320.1	303.7	297.5
Total money market funds	25.6	25.2	14.1	16.3
Total	369.3	345.3	317.8	313.7

* See below for important information about this data.

IFIC direct survey data (which accounts for approximately 85 per cent of total mutual fund industry assets and approximately 83 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.

*** 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.

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416-309-2313

Canada's population estimates, third quarter 2023

Released at 8:30 a.m. Eastern time in The Daily, Tuesday, December 19, 2023

Record-high population growth continues, fuelled by strong permanent and temporary immigration

Canada's population was estimated at 40,528,396 on October 1, 2023, an increase of 430,635 people (+1.1%) from July 1. This was the highest population growth rate in any quarter since the second quarter of 1957 (+1.2%), when Canada's population grew by 198,000 people. At the time, Canada's population was 16.7 million people, and this rapid population growth resulted from the high number of births during the post-war baby boom and high immigration of refugees following the Hungarian Revolution in 1956.

Canada's total population growth for the first nine months of 2023 (+1,030,378 people) had already exceeded the total growth for any other full-year period since Confederation in 1867, including 2022, when there was a record growth.

Population growth rates in the third quarter of 2023 exceeded the national level (+1.1%) in Alberta (+1.3%), Prince Edward Island (+1.2%) and Ontario (+1.2%). The population grew in all provinces and territories, except in the Northwest Territories (-0.5%).

International migration continues to be the main source of Canada's population growth

In the third quarter of 2023, the vast majority (96.0%) of the population growth was due to international migration. The rest of this gain (4.0%) was the result of natural increase, or the difference between the number of births and deaths. The contribution of natural increase to population growth is expected to remain low in the coming years because of population aging, lower fertility levels, and the high number of immigrants and non-permanent residents coming to Canada.

Canada welcomed 107,972 immigrants in the third quarter. From January to September 2023, immigration reached 79.8% (371,299) of Immigration, Refugees and Citizenship Canada's target of 465,000 immigrants for the year.

From July 1 to October 1, the country saw the number of non-permanent residents continue to increase; the total non-permanent resident population increased from 2,198,679 to 2,511,437. This represents a net increase of 312,758 non-permanent residents in the third quarter, which is the greatest quarterly increase going back to 1971 (when data on non-permanent residents became available). The gain in non-permanent residents was mostly due to an increase in the number of work and study permit holders and, to a lesser extent, an increase in the number of refugee claimants.

Alberta attracts interprovincial migrants from all provinces and territories

All provinces and territories recorded losses in their interprovincial migration exchanges in the third quarter of 2023 except for Alberta, which continued to have the highest net gains (+17,094), and New Brunswick (+21), with a very small gain.

Alberta has registered interprovincial migration gains of 10,000 or more for five consecutive quarters for the first time since comparable data were made available (1971). Most of Alberta's population gains through interprovincial migration were due to its exchanges with Ontario and British Columbia. In contrast, British Columbia experienced five consecutive quarters of interprovincial migration losses for the first time since the first quarter of 2013.

Despite the continuous net loss of interprovincial migration in Ontario, which began in the first quarter of 2020, the province showed a smaller net loss in the third quarter of 2023 (-5,952). Meanwhile, the Atlantic provinces observed a negligible or negative net interprovincial migration, which is a contrast to the trends seen from 2020 to 2022, during the COVID-19 pandemic, when they recorded strong growth from population exchanges with other provinces and territories. This can be largely attributable to the recent decrease in the number of migrants moving from Ontario to the Atlantic provinces.

Note to readers

The demographic estimates for the third quarter of 2023 released today are considered preliminary and will be updated following the standard procedure Statistics Canada has followed for decades.

Upcoming release

Annual demographic estimates by age and gender will be released on February 21, 2024.

Canada's population clock (real-time model)

Canada's population clock (real-time model) was updated today with the most recent data from quarterly population estimates released by Statistics Canada.

Canada's population clock is an interactive learning tool aiming to give Canadians a sense of the pace of the country's population renewal. The population estimates and census counts remain the measures used by various government programs.

Definitions

*For the purpose of calculating **rates**, the denominator is the average population during the period (the average of the start-of-period and end-of-period populations). For the sake of brevity, the terms **growth**, **population growth** and **population growth rate** have the same meaning.*

***Population growth** or **total growth** in Canada is equal to natural increase (births minus deaths) plus international migratory increase (immigrants plus net non-permanent residents minus net emigration). At the provincial and territorial level, total population growth also includes interprovincial migratory increase.*

***Net international migration** refers to the total number of moves between Canada and abroad that result in a change in the usual place of residence. It is calculated by adding immigrants, returning emigrants and net non-permanent residents, then subtracting emigrants.*

*An **immigrant** refers to a person who is a permanent resident or a landed immigrant. Such a person has been granted the right to live in Canada permanently by immigration authorities. Persons who are born abroad to a Canadian parent are not immigrants but are included in the returning emigrant component. For the Centre for Demography, the terms **immigrant, landed immigrant** and **permanent resident** refer to the same concept.*

***Non-permanent resident** refers to a person from another country with a usual place of residence in Canada and who has a work or study permit, or who has claimed refugee status (asylum claimant). Family members living with work or study permit holders are also included unless these family members are already Canadian citizens, landed immigrants (permanent residents), or non-permanent residents themselves. For the Centre for Demography, the terms **non-permanent resident** and **temporary immigrant** refer to the same concept.*

***Interprovincial migration** represents all movement from one province or territory to another involving a change in the usual place of residence. A person who takes up residence in another province or territory is an **out-migrant** with reference to the province or territory of origin and an **in-migrant** with reference to the province or territory of destination.*

Acknowledgements

The Demographic Estimates Program of Statistics Canada is grateful for the ongoing support and partnership with Immigration, Refugees and Citizenship Canada which greatly contributes to the accuracy of the estimation of non-permanent residents.

Dan Tsubouchi @Energy_Tidbits · 3h

ICYMI.

@ific Massive net redemptions continue to hit Cdn mutual finds balanced and equity funds.

YTD Nov 30, net redemptions of $52.4b from balanced funds & $23.2b from equity funds.

It's been brutal since Q2/22.

...

Show more

Figure 70: Cdn Mutual Fund Net Sales/Net Redemptions ($ Millions)

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

Asset class	Nov 2023	Oct 2023	Nov 2022	YTD 2023	YTD 2022
Long-term funds					
Balanced	(6,584)	(8,569)	(5,061)	(52,342)	(25,024)
Equity	(3,254)	(4,142)	(3,015)	(23,201)	(5,392)
Bond	(423)	(1,028)	(1,112)	6,204	(11,624)
Specialty	397	199	(10)	3,368	1,203
Total long-term funds	(9,865)	(13,540)	(9,197)	(65,971)	(40,837)
Total money market funds	1,227	997	562	14,035	5,394
Total	(8,638)	(12,544)	(8,636)	(51,936)	(35,443)

Source: IFIC

Figure 71: Cdn Mutual Fund Net Sales/Net Redemptions ($ Millions)

Mutual Fund Net Sales/Net Redemptions ($ Millions)*

Asset Class	Dec. 2022	Nov. 2022	Dec. 2021	2022	2021
Long-term Funds					
Balanced	(4,969)	(5,066)	1,628	(29,999)	63,346
Equity	(3,080)	(3,014)	462	(8,480)	37,102
Bond	(2,254)	(1,104)	(1,276)	(13,790)	14,530
Specialty	[illegible]	[illegible]	415	[illegible]	6,010
Total Long-term Funds	(10,340)	(9,194)	1,229	(51,103)	120,988
Total Money Market Funds	1,642	551	185	7,026	(7,414)
Total	(8,698)	(8,643)	1,415	(44,077)	113,574

Source: IFIC

1 · 1 · 4 · 1.1K

Dan Tsubouchi @Energy_Tidbits · 5h

The #Oil story for Monday.

US says it wasn't the Houthis, it was Iran.

@WSJ reports the tanker hit by a drone 200 miles off coast of India was "*a one-way attack drone fired from Iran," a Pentagon spokesperson said in a statement.*"

#OOTT
wsj.com/world/middle-e...

> **Dan Tsubouchi** @Energy_Tidbits · 19h
>
> #Oil market story for Monday!
>
> Looks like a big expansion of shipping risk area for drone attacks to Arabian Sea!
>
> ...
> Show more

Source: Google Maps

https://twitter.com/UK_MTO/status/1738467309239361546

United Kingdom Maritime Trade Operations (UKMTO) @UK_MTO

UKMTO WARNING 018/DEC/2023

ATTACK – INCIDENT 018 UPDATE 01

UKMTO have received a report of an attack by Uncrewed Aerial System (UAS) on a vessel causing an explosion and fire.

ukmto.org/indian-ocean/p...

#MaritimeSecurity #marsec

UKMTO WARNING 018/DEC/2023

ATTACK – INCIDENT 018 UPDATE 01

Incident Date:	Incident Time:
23/DEC/2023	0607UTC

Source: CSO
Issued: 23 DEC 23 0730UTC

UKMTO have received a report of an attack by Uncrewed Aerial System (UAS) on a vessel causing an explosion and fire. Incident 200NM South West of Veraval, India. Fire extinguished, no casualties. Authorities are investigating.

Vessels are advised to transit with caution and report any suspicious activity to UKMTO.

1 3 7 2K

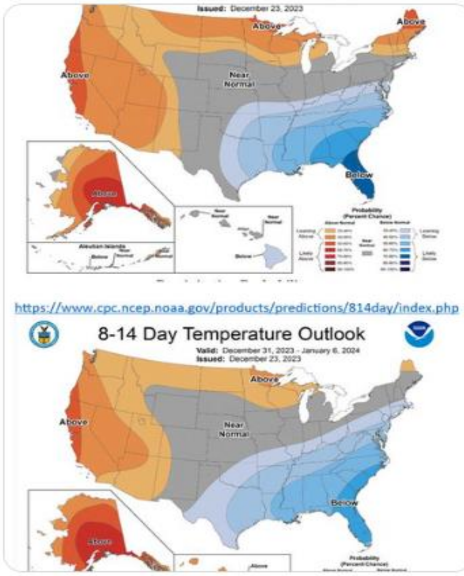
Dan Tsubouchi @Energy_Tidbits · 7h

Finally, a near-term @NOAA temp outlook showing normal to colder than normal temps are moving into eastern half of US in Jan.

Today's NOAA temp outlook is for Dec 29-Jan 6.

But need a cold Jan after a warm Nov/Dec start to winter.

#OOTT



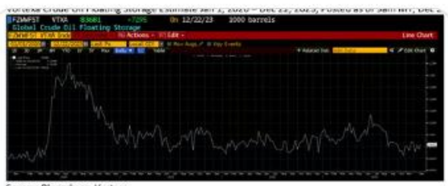
1 · 4 · 1.4K

Dan Tsubouchi @Energy_Tidbits · 14h

Floating #Oil storage 12/22 is 83.68 mmb, +7.29 WoW vs revised up 12/15 of 76.39 mmb.

Last 7-wk average crept back over 80 to 80.53 mmb. Still fine but want to watch coming into seasonally low demand in Q1.

Thx @Vortexa @business
#OOTT



Source: Bloomberg, Vortexa

Posted Dec 23, 9am MT			Dec 16, 9am MT			Dec 9, 9am MT	
FZWWFST VTXA Index			FZWWFST VTXA Index			FZWWFST VTXA Index	
01/01/2020 - 12/22/2023			01/01/2020 - 12/15/2023			01/01/2020 - 12/08/2023	
Date	FZWWFST VT... Last Px		Date	FZWWFST VT... Last Px		Date	FZWWFST VT... Last Px
Fr 12/22/2023	83681		Fr 12/15/2023	70395		Fr 12/08/2023	81357
Fr 12/15/2023	76386		Fr 12/08/2023	84214		Fr 12/01/2023	70451
Fr 12/08/2023	83255		Fr 12/01/2023	71322		Fr 11/24/2023	89211
Fr 12/01/2023	71610		Fr 11/24/2023	87496		Fr 11/17/2023	89888
Fr 11/24/2023	87097		Fr 11/17/2023	88559		Fr 11/10/2023	74585
Fr 11/17/2023	88086		Fr 11/10/2023	71370		Fr 11/03/2023	80390
Fr 11/10/2023	73571		Fr 11/03/2023	78731		Fr 10/27/2023	78680
Fr 11/03/2023	80658		Fr 10/27/2023	77790		Fr 10/20/2023	63674
Fr 10/27/2023	80145		Fr 10/20/2023	63486		Fr 10/13/2023	74746
Fr 10/20/2023	65283		Fr 10/13/2023	73523		Fr 10/06/2023	75022
Fr 10/13/2023	73117		Fr 10/06/2023	73574		Fr 09/29/2023	85261

Source: Bloomberg, Vortexa

Vortexa Crude Oil Floating Storage by Region (mmb)				Original Posted	Recent Peak	
Region	Dec 22/23	Dec 15/23	WoW	Dec 15/23	Jun 23/23	Dec 22 vs Jun 23
Asia	47.98	37.88	10.10	36.20	73.54	-25.56
Europe	6.67	5.98	0.69	5.54	6.44	0.23
Middle East	3.05	7.06	-4.01	6.98	7.17	-4.12
West Africa	4.69	5.82	-1.13	4.68	7.62	-2.93
US Gulf Coast	3.10	2.97	0.13	2.46	0.97	2.13
Other	18.19	16.68	1.51	14.54	37.57	-19.38
Global Total	83.68	76.39	7.29	70.40	133.31	-49.63

Vortexa crude oil floating storage posted on Bloomberg 9am MT on Dec 23
Source: Vortexa, Bloomberg

1 · 5 · 12 · 1.9K

Dan Tsubouchi @Energy_Tidbits · 19h

#Oil market story for Monday!

Looks like a big expansion of shipping risk area for drone attacks to Arabian Sea!

IF the Houthis, is this a reminder to Saudi to not helpl Israel/US as they can hit any tankers/ships coming out of Persian Gulf?.

Thx @UK_MTO
#OOTT

Source: Google Maps

https://twitter.com/UK_MTO/status/1738467309239361546

United Kingdom Maritime Trade Operations (UKMTO)
@UK_MTO

UKMTO WARNING 018/DEC/2023

ATTACK – INCIDENT 018 UPDATE 01

UKMTO have received a report of an attack by Uncrewed Aerial System (UAS) on a vessel causing an explosion and fire.

ukmto.org/indian-ocean/p...

#MaritimeSecurity #marsec

UKMTO WARNING 018/DEC/2023

ATTACK – INCIDENT 018 UPDATE 01

Incident Date:	Incident Time:
23/DEC/2023	0607UTC

Source: CSO
Issued: 23 DEC 23 0730UTC

UKMTO have received a report of an attack by Uncrewed Aerial System (UAS) on a vessel causing an explosion and fire. Incident 200NM South West of Veraval, India. Fire extinguished, no casualties Authorities are investigating.

Vessels are advised to transit with caution and report any suspicious activity to UKMTO.

United Kingdom Maritime Trade Operations (UKM @UK_MT(· 22h

UKMTO WARNING 018/DEC/2023

ATTACK – INCIDENT 018 UPDATE 01

UKMTO have received a report of an attack by ...
Show more

9 · 26 · 8K

SAF

Dan Tsubouchi @Energy_Tidbits · Dec 22

"*The [Bakken] DUC well inventory should be almost entirely depleted at this point.*"

"*pretty close to 50% of the [Bakken #Oil] production increase is driven by completion of DUC wells.*

#OOTT

"The [Bakken] DUC well inventory should be almost entirely depleted at this point." "so pretty close to 50% of the [Bakken oil] production increase is driven by completion of DUC wells." North Dakota's Lynn Helms.

SAF Group created transcript of comments by North Dakota Director of Mineral Resources, Lynn Helms, and Director North Dakota Pipeline Authority, Justin J. Kringstad, on The Directors Cut to discuss the December 2023 Directors Cut https://www.dmr.nd.gov/dmr/oilgas/directorscut on December 19, 2023

Items in "italics" are SAF Group created transcript.

At 2:50 min mark, Helms "*The really big thing is the number of wells completed. We have well over a thousand wells completed this year and you can see the most recent three months – 129, 96, 111. That's DUC wells. The DUC well inventory should be almost entirely depleted at this point. We met with the operator that had the vast majority of the DUCs, I think they had half of all of our DUC wells. And they're down to less than two dozen wells left in their DUC inventory. Those will all be completed over the winter and be on production by mid-year next year. So when you look on wells waiting on completion, we're down to 350 and that's just pretty much a standard inventory of well drilled using a multi-well batch process and waiting completion crews. Sixteen completion crews working so really steady work there.*

At 12:00 min mark, Helms answers a question if the increase in production is primarily driven by DUC wells. Helms "*I don't know if I would say primarily but I would say close to 50% because the current rig count is only able to support probably in the neighborhood of 700 completions, well completions a year. And we have seen well over 1,000 already this year. We'll be at a solid 1,100, 1,200 so pretty close to 50% of the production increase is driven by completion of DUC wells. The rest is driven by drilling new wells and completing those.* "

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

5 · 18 · 51 · 7.3K

SAF

Dan Tsubouchi @Energy_Tidbits · Dec 22

North Dakota "*we should see better numbers in Nov [#Oil production] and, with the weather we've been having in Dec, we should see great numbers*".

Oct production was down MoM to 1.245 mmb/d due to impact of snow storms.

#OOTT

SAF Group created transcript of comments by North Dakota Director of Mineral Resources, Lynn Helms, and Director North Dakota Pipeline Authority, Justin J. Kringstad, on The Directors Cut to discuss the December 2023 Directors Cut https://www.dmr.nd.gov/dmr/oilgas/directorscut on December 19, 2023

Items in "italics" are SAF Group created transcript.

At 1:00 min mark, on looking forward to Nov and Dec oil production, Helms "... *we should see better numbers in November and, with the weather we've been having in December, we should see great numbers*".

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

4 · 13 · 2.4K

Dan Tsubouchi @Energy_Tidbits · Dec 22

Does China know more about itself than outsiders?

See 👇 @JavierBlas post.

China keeps increasing its forecast for peak #Oil demand.

#OOTT

> **Javier Blas** @JavierBlas · Dec 22
>
> CHINA AND THE OIL MARKET: Every year around this time, state-owned China National Petroleum Corp. publishes an estimate of when the country's oil demand might peak. And every year, it gets higher and higher, and now much higher | #OOTT 1/2
>
> The evolution of the forecast by China National Petroleum Corporation (CNPC) for the country's peak in oil demand:
>
> 2023: peak "by 2030" at "up to" 800m tonnes
> 2021: peak "by 2030" at 780m tonnes
> 2020: peak "before 2030" at 740m tonnes
> 2019: peak "in 2030" at 705m tonnes
> 2018: peak "by 2030s" at 690m tonnes
> 2017: peak "in 2027" at 670m tonnes
>
> Source: CNPC and Bloomberg Opinion research

4 13 3.3K

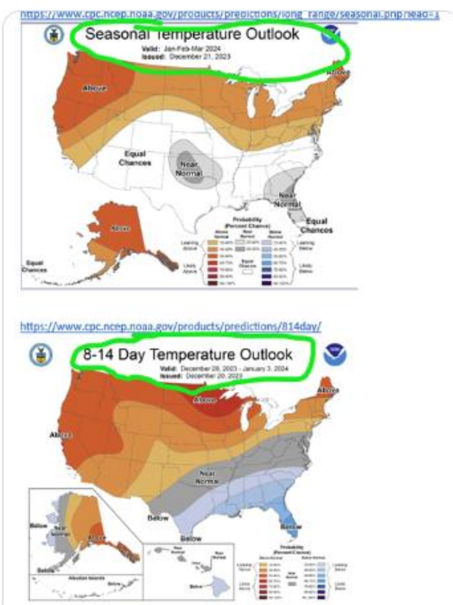
Dan Tsubouchi @Energy_Tidbits · 4h

#Natgas investors can probably stay on sidelines until there is any sustained cold in northern half of US.

Warmer than normal Nov/Dec & to start Jan.

Now @NOAA's updated seasonal Jan/Feb/Mar temp outlook is for warmer than normal.

#OOTT



3 4 1.3K

Dan Tsubouchi @Energy_Tidbits · 6h

ICYMI

See 👇

Houthis leader speech yesterday

warning US and others

#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · 21h
>
> Will Houthis leader speech keep US from attacking?
>
> Any US attack will be met w/ targeting US *"battleships, interests, & navigation with missiles, drones, & military operations*
>
> ...
>
> Show more

1 1 1.2K

Dan Tsubouchi @Energy_Tidbits · 9h

Reminder the energy transition is happening, but will just take longer and end up costing consumers more than they expect.

#Biden Admin considering raising tariffs on Chinese EVs, solar products & EV battery packs reports @aduehren.

#OOTT

1 3 910

SAF

Dan Tsubouchi @Energy_Tidbits · 21h

Will Houthis leader speech keep US from attacking?

Any US attack will be met w/ targeting US *"battleships, interests, & navigation with missiles, drones, & military operations*

Also warns UK, France, Italy & others.

Regrets Arab countries shooting down Houthi missiles.

#OOTT

> **Adam Ritzer** @RitzerAdam · Dec 20
> Replying to @Energy_Tidbits
> Biden is already too scared to do anything to these clowns

1 · 3 · 2 · 4K

SAF

Dan Tsubouchi @Energy_Tidbits · Dec 20

ICYMI.

Houthis defense minister direct warning to US & allies to not attack

#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Dec 19
> "*The Yemeni Armed Forces will turn the Red Sea into a graveyard of the **US-led coalition if the alliance** decides to take any action against Yemen*," Houthis Defense Minister.
>
> Will this keep the US et al from retaliating against drones/missiles sh...
> *Show more*

Yemen says will turn Red Sea into 'graveyard' after US announces maritime coalition

1 · 1 · 6 · 2.7K

Dan Tsubouchi @Energy_Tidbits · Dec 20

For those not near their laptops. @EIAgov
just released at 8:30am MT its #Oil #Gasoline #Distillates inventory as of Dec 15. Table below compares EIA data vs @business expectations and vs @APIenergy yesterday. Prior to release, WTI was $75.02. #OOTT

Oil/Products Inventory Dec 15: EIA, Bloomberg Survey Expectations, API

(million barrels)	EIA	Expectations	API
Oil	2.91	-2.30	0.94
Gasoline	2.71	1.35	0.67
Distillates	1.49	0.69	2.74
	7.11	-0.26	4.35

Note: Oil is commercial so builds in +0.6 mmb in SPR for the Dec 15 week
Note: Included in the oil data, Cushing had a 1.69 mmb build for Dec 15 week
Source EIA, Bloomberg
Prepared by SAF Group https://safgroup.ca/news-insights/

3 7 1.3K

Dan Tsubouchi @Energy_Tidbits · Dec 19

Reminder why 🇨🇦 Cdn housing demand keeps surprising to upside.

Forecasts for "immigrants" normally do not include "non-permanent residents".

There were 3x as many non-permanent residents vs immigrants in Q3/23: 107,972 immigrants vs 312,758 non-permanent residents.

Canada's population estimates, third quarter 2023

Released at 8:30 a.m. Eastern time in The Daily, Tuesday, December 19, 2023

Record-high population growth continues, fuelled by strong permanent and temporary immigration

Canada's population was estimated at 40,528,396 on October 1, 2023, an increase of 430,635 people (+1.1%) from July 1. This was the highest population growth rate in any quarter since the second quarter of 1957 (+1.2%), when Canada's population grew by 198,000 people. At the time, Canada's population was 16.7 million people, and this rapid population growth resulted from the high number of births during the post-war baby boom and high immigration of refugees following the Hungarian Revolution in 1956.

Canada's total population growth for the first nine months of 2023 (+1,030,378 people) had already exceeded the total growth for any other full-year period since Confederation in 1867, including 2022, when there was a record growth.

Population growth rates in the third quarter of 2023 exceeded the national level (+1.1%) in Alberta (+1.3%), Prince Edward Island (+1.2%) and Ontario (+1.2%). The population grew in all provinces and territories, except in the Northwest Territories (-0.5%).

International migration continues to be the main source of Canada's population growth

In the third quarter of 2023, the vast majority (96.0%) of the population growth was due to international migration. The rest of this gain (4.0%) was the result of natural increase, or the difference between the number of births and deaths. The contribution of natural increase to population growth is expected to remain low in the coming years because of population aging, lower fertility levels, and the high number of immigrants and non-permanent residents coming to Canada.

Canada welcomed 107,972 immigrants in the third quarter. From January to September 2023, immigration reached 79.8% (371,299) of Immigration, Refugees and Citizenship Canada's target of 465,000 immigrants for the year.

From July 1 to October 1, the country saw the number of non-permanent residents continue to increase; the total non-permanent resident population increased from 2,198,679 to 2,511,437. This represents a net increase of 312,758 non-permanent residents in the third quarter, which is the greatest quarterly increase going back to 1971 (when data on non-permanent residents became available). The gain in non-permanent residents was mostly due to an increase in the number of work and study permit holders and, to a lesser extent, an increase in the number of refugee claimants.

Alberta attracts interprovincial migrants from all provinces and territories

All provinces and territories recorded losses in their interprovincial migration exchanges in the third quarter of 2023 except for Alberta, which continued to have the highest net gains (+17,094), and New Brunswick (+21), with a very small gain.

Alberta has registered interprovincial migration gains of 10,000 or more for five consecutive quarters for the first time since comparable data were made available (1971). Most of Alberta's population gains through interprovincial migration were due to its exchanges with Ontario and British Columbia. In contrast, British Columbia experienced five consecutive quarters of interprovincial migration losses for the first time since the first quarter of 2013.

Despite the continuous net loss of interprovincial migration in Ontario, which began in the first quarter of 2020, the province showed a smaller net loss in the third quarter of 2023 (-6,952). Meanwhile, the Atlantic provinces observed a negligible or negative net interprovincial migration, which is a contrast to the trends seen from 2020 to 2022.

Statistics Canada Statistique Canada

Canada

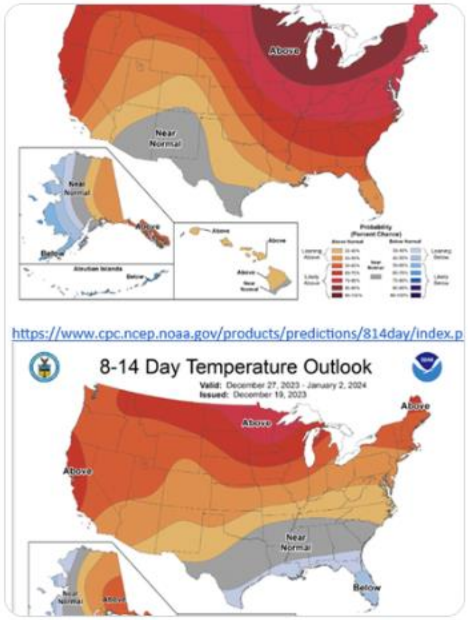
1 3 7 1.9K

Dan Tsubouchi @Energy_Tidbits · Dec 19

#Natgas investors can stay on sidelines until Jan to see if will turn & stay cold.

Today's @NOAA temp outlook is for warmer than normal temps across US for Dec 25-Jan 2.

A warm Nov/Dec start is difficult, but not impossible to catch up, BUT needs a very cold Jan/Feb.
#OOTT



1 11 2.3K

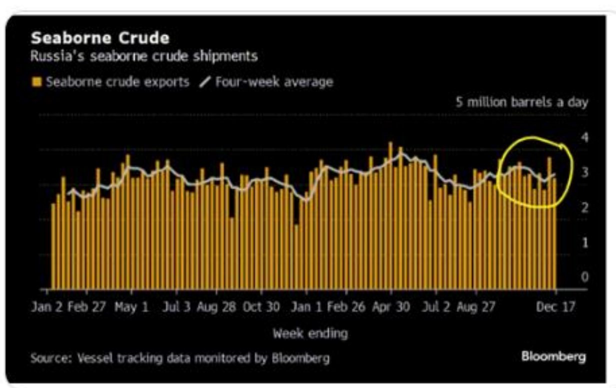
Dan Tsubouchi @Energy_Tidbits · Dec 19

Big -0.60 mmbd WoW decrease in Russia #Oil shipments to 3.18 mmbd for Dec 17 wk.

Decrease was expected as Dec 10 wk was a catch up from Black Sea storms.

4-wk average to Dec 17 now 3.28 mmbd, in line with 3.28 mmbd commitment.

Thx @JLeeEnergy...
Show more



5 13 3.2K

SAF

Dan Tsubouchi @Energy_Tidbits · Dec 19

"*The Yemeni Armed Forces will turn the Red Sea into a graveyard of the* ***US-led coalition if the alliance*** *decides to take any action against Yemen*," Houthis Defense Minister.

Will this keep the US et al from retaliating against drones/missiles shot at their navy?

#OOTT

Yemen says will turn Red Sea into 'graveyard' after US announces maritime coalition

3 · 2 · 18 · 6.2K

SAF

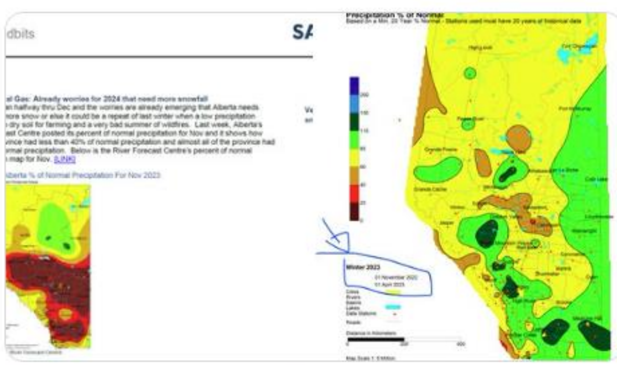
Dan Tsubouchi @Energy_Tidbits · 2h

Its only Dec but Alberta needs lot of snow in Jan/Feb.

Winter 22/23 lack of snow led to brutal wildfire season, tough agriculture conditions & little moisture in soil to start winter 23/34.

Now Nov precipitation was brutal.

#Oil #NatGas also get impacted by low water.
#OOTT



1 · 1 · 8 · 1.5K

Dan Tsubouchi @Energy_Tidbits · 3h

US consumer spending more!

"*never found people [US consumer] more depressed and we've never found them spending more*" @steveliesman @SquawkCNBC.

same message as 👇 12/05 Jamie Dimon US consumer tension on how they feel vs what they do.

#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Dec 12
>
> 
>
>
> "WOW" says @BeckyQuick @SquawkCNBC
>
> US consumer deposit balances still 40% above pre-Covid. think the excess savings during Covid + wage growth savings boost doesn't run out until "well past ...
> Show more

1 · 3 · 1.5K

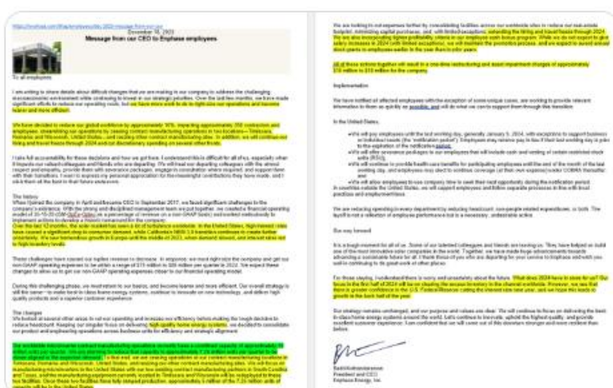
Dan Tsubouchi @Energy_Tidbits · 5h ·

#SolarDemand

Enphase Energy

1H24 focus "clearing the excess inventory in the channel worldwide" Cutting worldwide capacity of 10 mm units/qt "*We are planning to reduce that capacity to approximately 7.25 million units per quarter to be closer aligned to the expected demand*"...

Show more



868

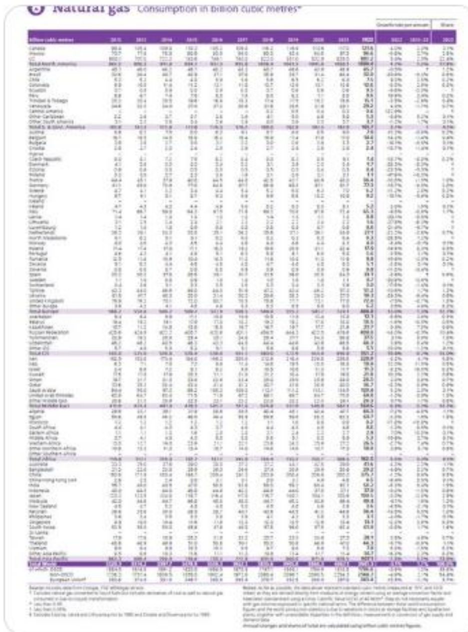
SAF

Dan Tsubouchi @Energy_Tidbits · 12h

Cold Northern China = record energy consumption incl 1.242 bcm (50.3 bcf/d) of #natgas reports Global Times.

No question a positive but not a huge swing vs China daily average #natgas consumption in 2022 of 375.7 bcm/yr or 36.4 bcf/d per @EnergyInstitute data.

#OOTT



Global Times @globaltimesnews · 13h

China's energy consumption hit record high on Sunday, consuming 1.242 billion kilowatts of electricity and 1.423 billion cubic meters of natural gas. The country has ample energy reserve, with coal stocks above 200 million tons, meeting 26 days' use by ...
Show more

1 4 10 4.4K

Dan Tsubouchi @Energy_Tidbits · 14h

US confirms #Houthi drone/missile hit on SWAN ATLANTIC.

Was attacked by drone and anti-ship ballistic missile launched from a Houthi-controlled area in Yemen. The Cayman Islands flagged SWAN ATLANTIC r***eported impact on the vessel.*** @CENTCOM.

#OOTT

> U.S. Central Command @CENTCOM · 17h
>
> On December 18, at approximately 9:00 (Sanaa time), there were two Houthi militant attacks against commercial shipping in the Southern Red Sea.
>
> The chemical/oil tanker motor vessel SWAN ATLANTIC was attacked ...
> Show more

3 · 8 · 3.9K

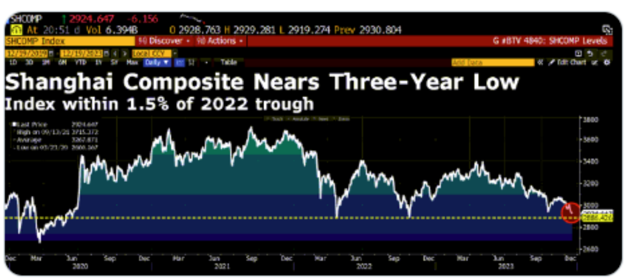
Dan Tsubouchi @Energy_Tidbits · 15h

Another reason why Chinese recovery stalled.

Chinese stock investors have now given up almost all post Covid stock/wealth creation.

Shanghai now only +10% from Covid bottom, whereas S&P +112% from Covid bottom

Thx @business.
#OOTT



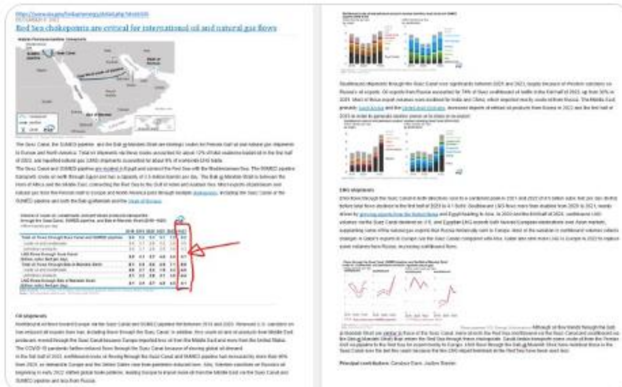
4 · 8 · 2K

Dan Tsubouchi @Energy_Tidbits · 15h

At least 5 #LNG tankers have changed course since Fri to avoid #Houthis risk at Bab el Mandeb says @ruthcoverslng @a_shiryaevskaya @SStapczynski

See 👇 @eiagov 8.8 mmbd & 4.2 bcf LNG thru Bab el Mandeb.

#OOTT


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

4 8 1.6K

Dan Tsubouchi @Energy_Tidbits · Dec 18

Avoiding Red Sea and going the long way around Cape of Good Hope for typical Singapore to Rotterdam for shipping adds ~3,280 miles and 10-15 days.

Thx @jcgnana @SPGCI
#OOTT

> **Jennifer Gnana** @jcgnana · Dec 15
>
> "Repeated attacks by Yemen's Houthis militia along the Bab al-Mandeb route have left global shipping companies shunning the critical chokepoint amid rising costs and increasing geopolitical risk in one of the world's biggest chokepoints for seaborne trade."
> I take a look at...
> Show more

13 · 28 · 7.7K

Dan Tsubouchi @Energy_Tidbits · Dec 17

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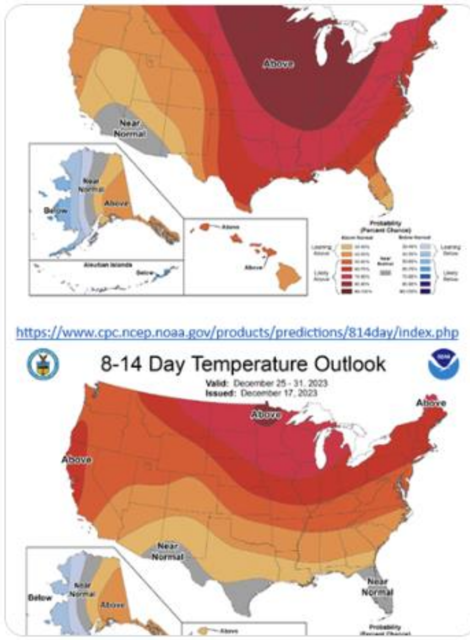

2 1 8 2.6K