Energy Tidbits

IEA "*OPEC+ supply management policies may tip the oil market into a small deficit at the start of the year*" i.e., OPEC cuts working

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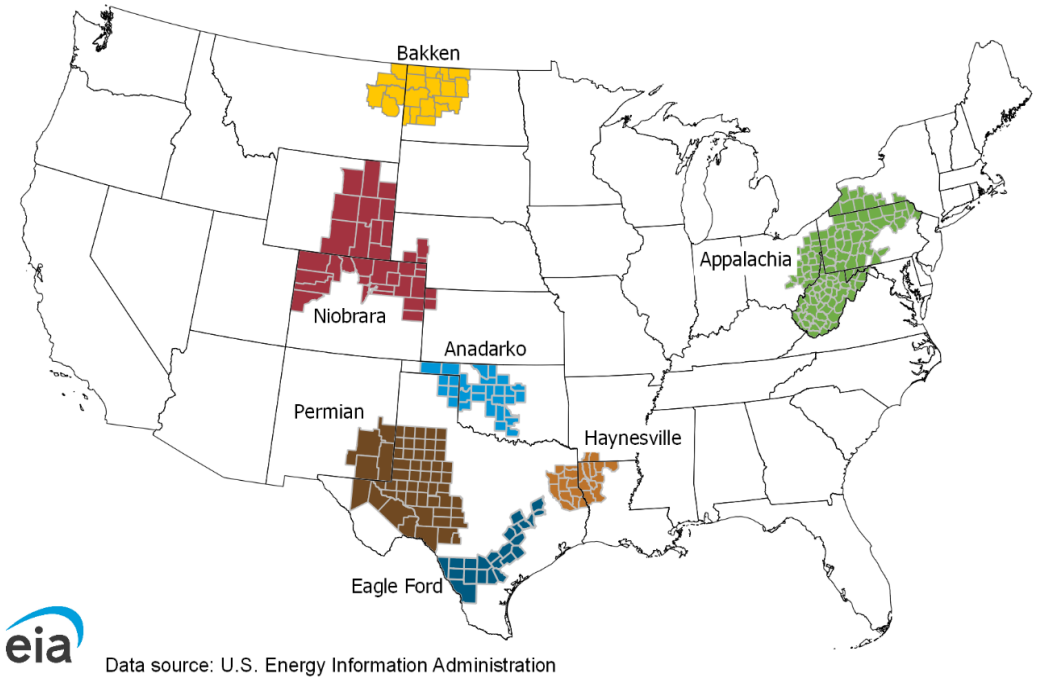
Independent Statistics & Analysis

U.S. Energy Information Administration

January 2024

Drilling Productivity Report

For key tight oil and shale gas regions



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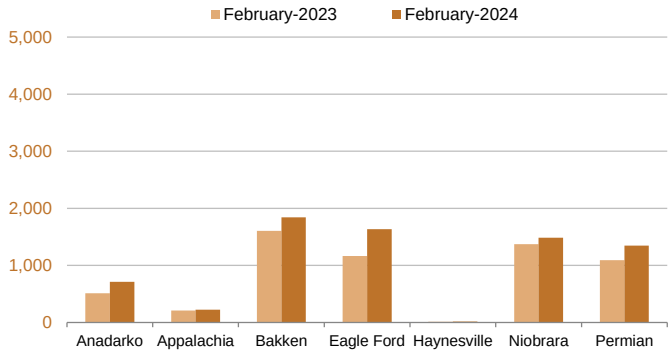
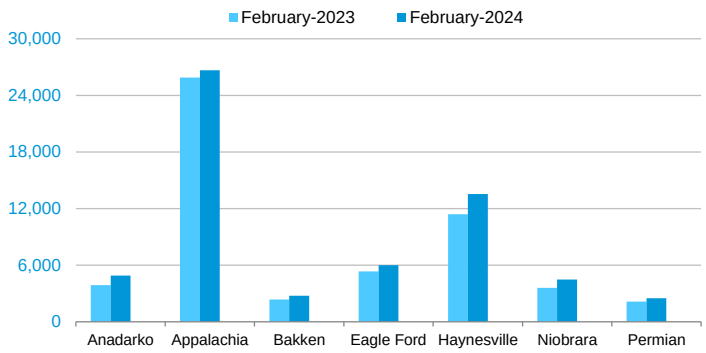
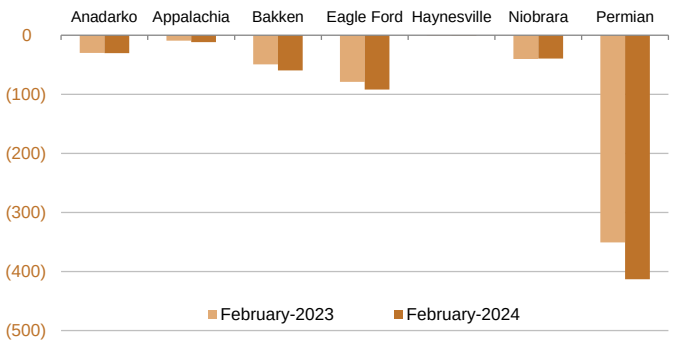
barrels/day



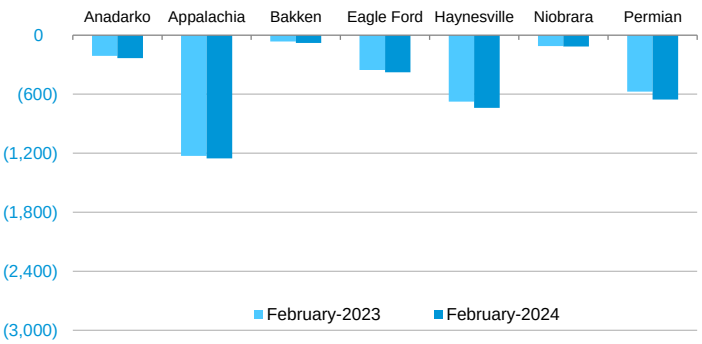
New-well gas production per rig
thousand cubic feet/day



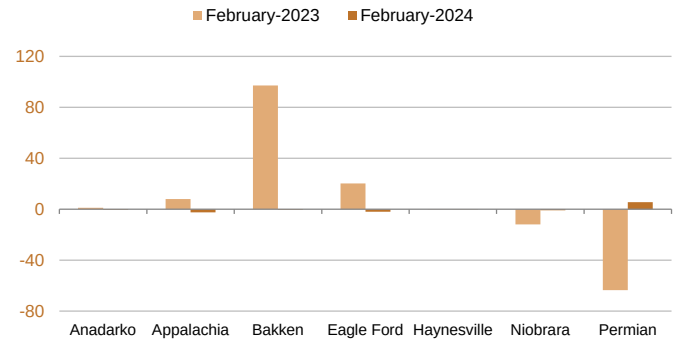
Legacy oil production change
thousand barrels/day



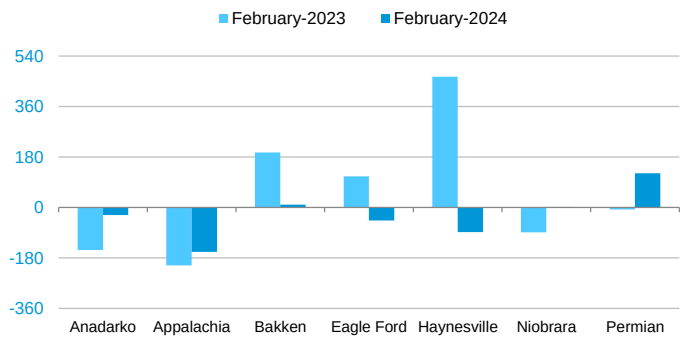
Legacy gas production change
million cubic feet/day



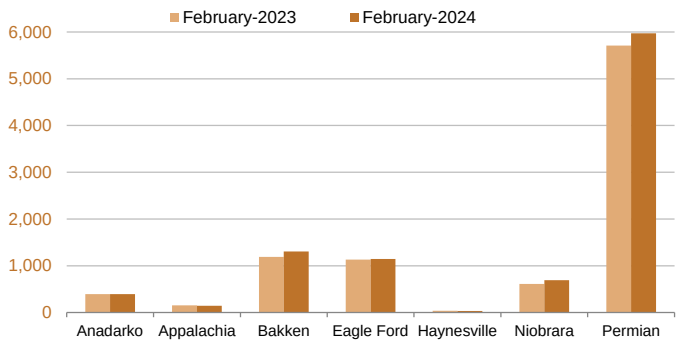
Indicated monthly change in oil production (Feb vs. Jan)
thousand barrels/day



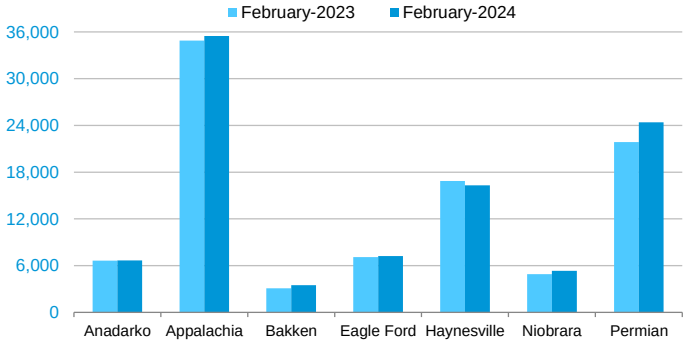
Indicated monthly change in gas production (Feb vs. Jan)
million cubic feet/day



Oil production
thousand barrels/day



Natural gas production
million cubic feet/day



Anadarko Region

Drilling Productivity Report

January 2024

drilling data through December
projected production through February

Oil +1
barrels/day
month over month

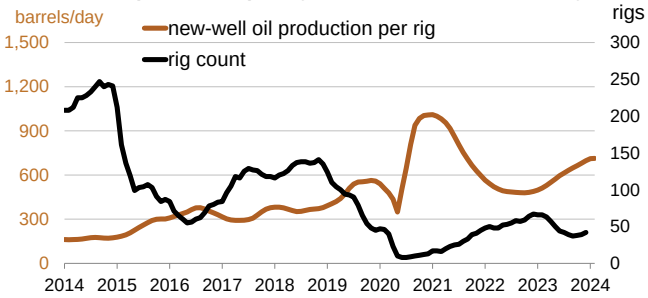
713 *February*
712 *January*
barrels/day

Monthly additions from one average rig

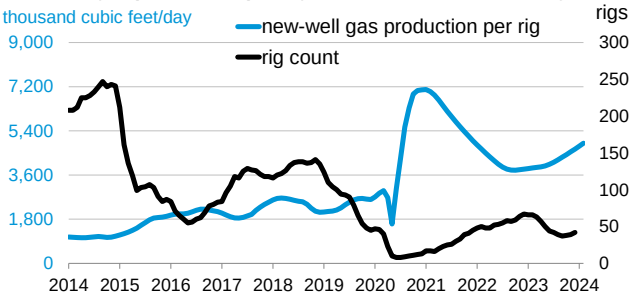
February **4,895**
January **4,775**
thousand cubic feet/day

Gas +120
thousand cubic feet/day
month over month

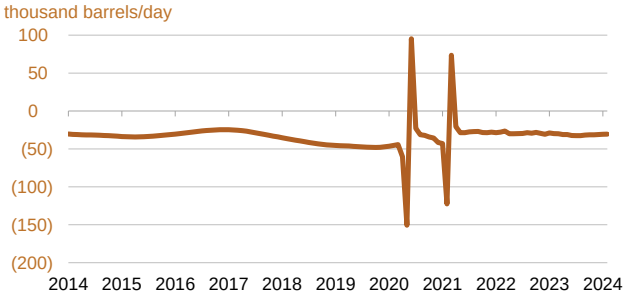
Anadarko Region
New-well oil production per rig



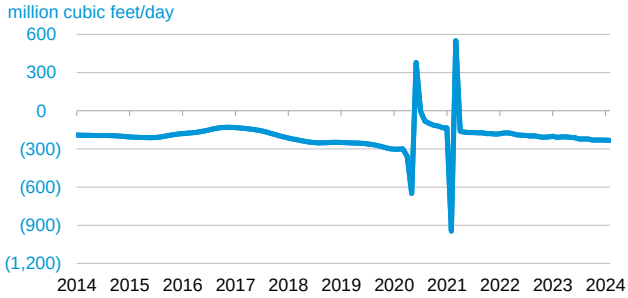
Anadarko Region
New-well gas production per rig



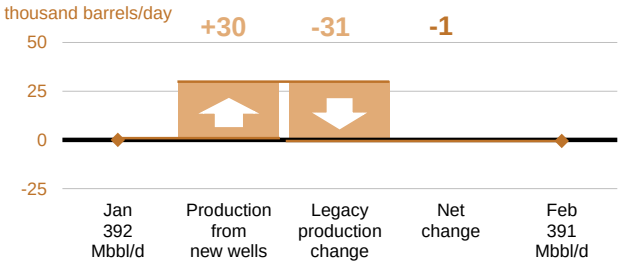
Anadarko Region
Legacy oil production change



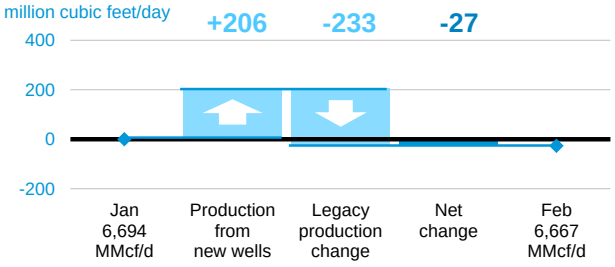
Anadarko Region
Legacy gas production change



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

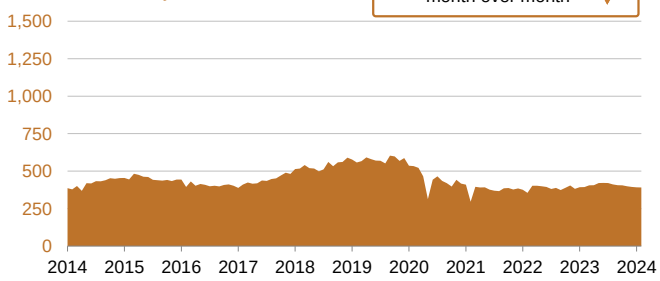


Anadarko Region
Indicated change in natural gas production (Feb vs. Jan)



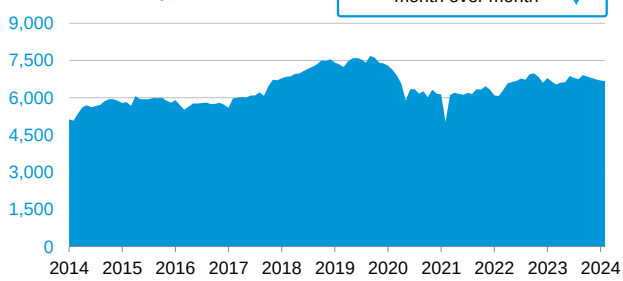
Anadarko Region
Oil production

Oil -1
thousand barrels/day
month over month



Anadarko Region
Natural gas production

Gas -27
million cubic feet/day
month over month



Appalachia Region
Drilling Productivity Report

January 2024

drilling data through December
projected production through February

Oil +1
barrels/day
month over month

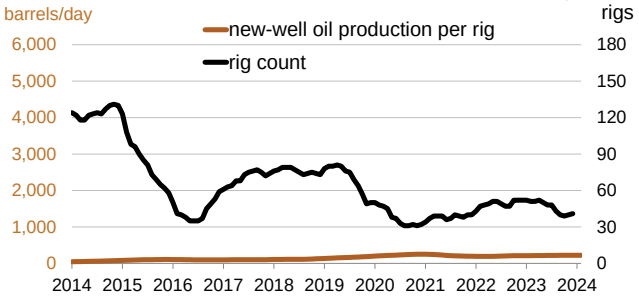
223 *February*
222 *January*
barrels/day

Monthly additions from one average rig

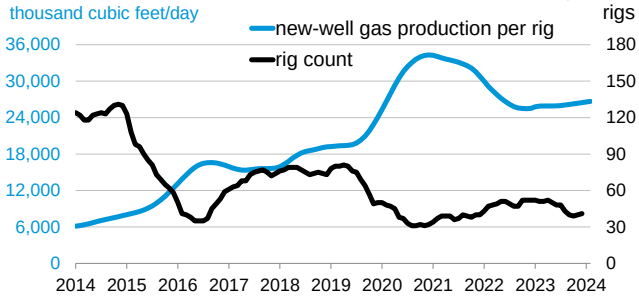
February **26,669**
January **26,571**
thousand cubic feet/day

Gas +98
thousand cubic feet/day
month over month

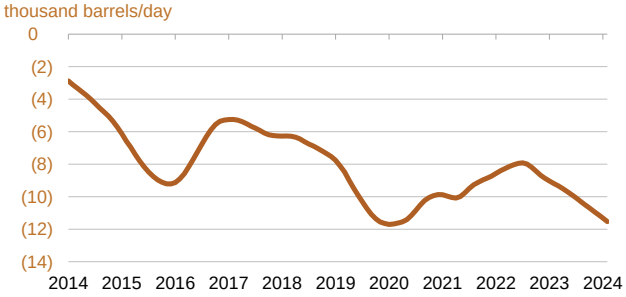
Appalachia Region
New-well oil production per rig



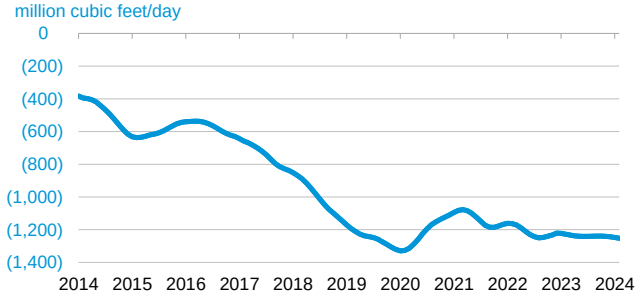
Appalachia Region
New-well gas production per rig



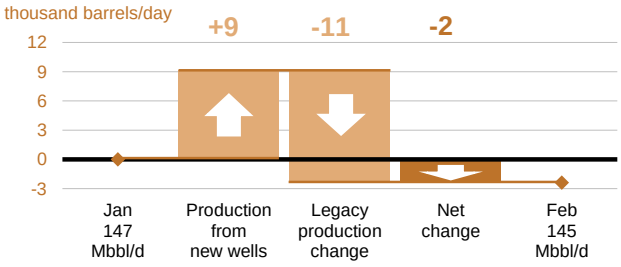
Appalachia Region
Legacy oil production change



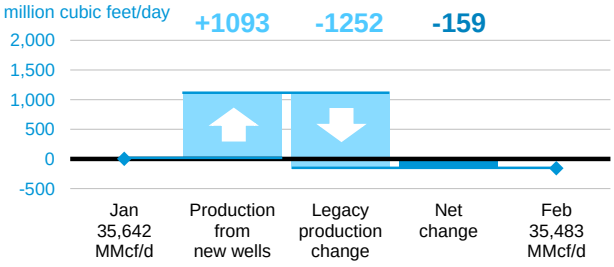
Appalachia Region
Legacy gas production change



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

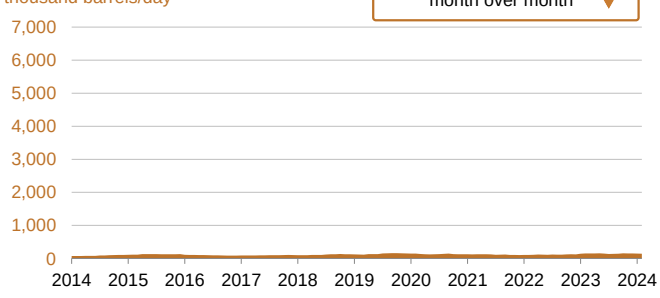


Appalachia Region
Indicated change in natural gas production (Feb vs. Jan)



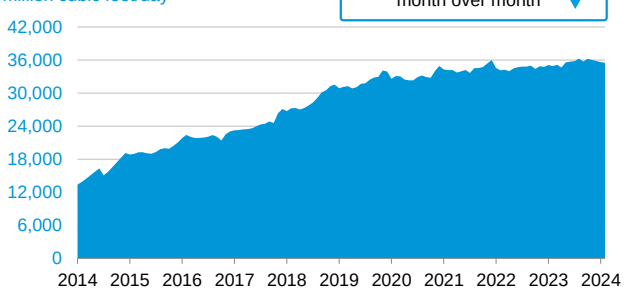
Appalachia Region
Oil production

Oil -2
thousand barrels/day
month over month



Appalachia Region
Natural gas production

Gas -159
million cubic feet/day
month over month



Bakken Region

Drilling Productivity Report

January 2024

drilling data through December
projected production through February

Oil +9
barrels/day
month over month

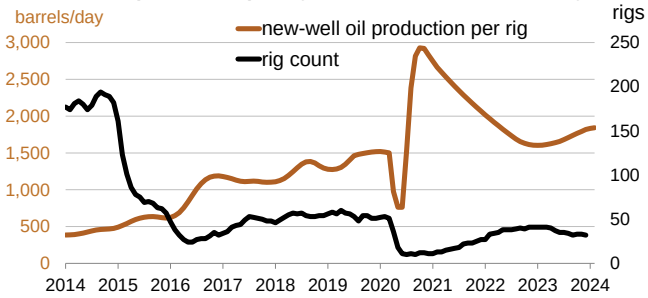
1,842 *February*
1,833 *January*
barrels/day

Monthly additions from one average rig

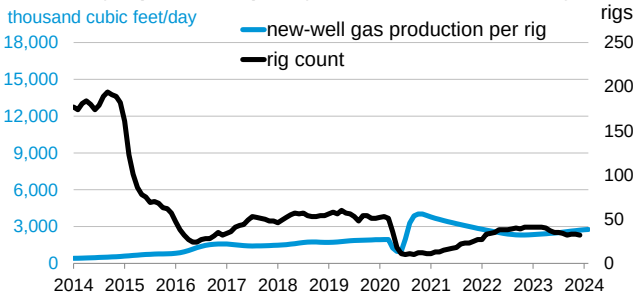
February **2,759**
January **2,746**
thousand cubic feet/day

Gas +13
thousand cubic feet/day
month over month

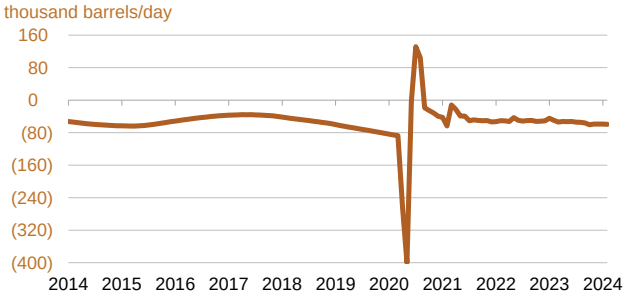
Bakken Region
New-well oil production per rig



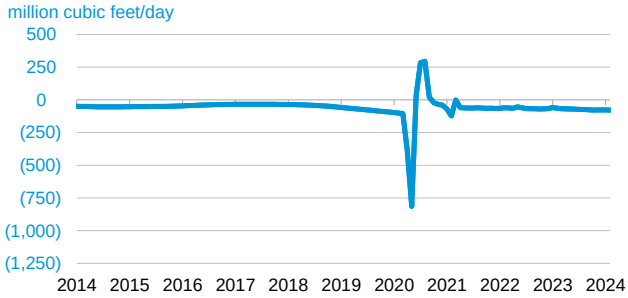
Bakken Region
New-well gas production per rig



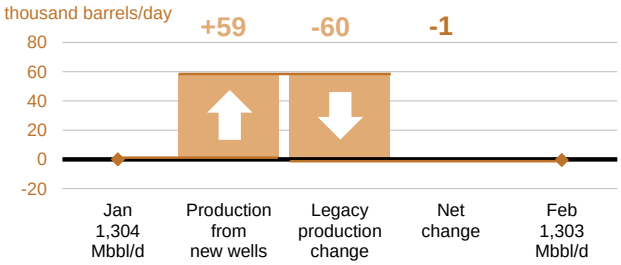
Bakken Region
Legacy oil production change



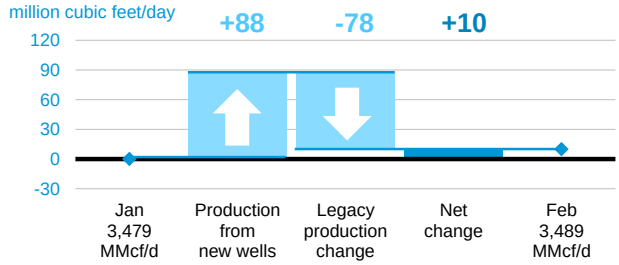
Bakken Region
Legacy gas production change



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

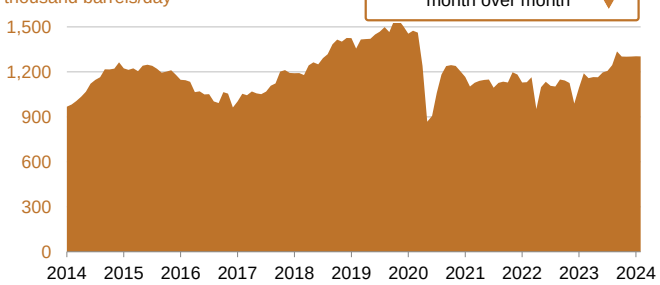


Bakken Region
Indicated change in natural gas production (Feb vs. Jan)



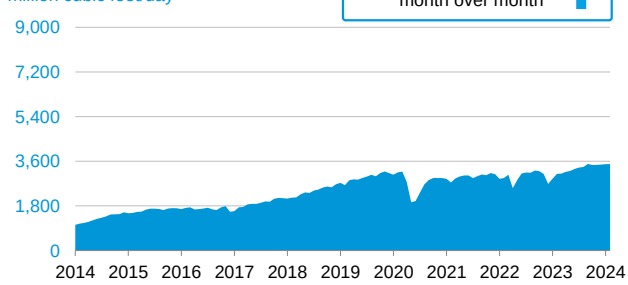
Bakken Region
Oil production

Oil -1
thousand barrels/day
month over month



Bakken Region
Natural gas production

Gas +10
million cubic feet/day
month over month



Eagle Ford Region

Drilling Productivity Report

January 2024

drilling data through December
projected production through February

Oil +5
barrels/day
month over month

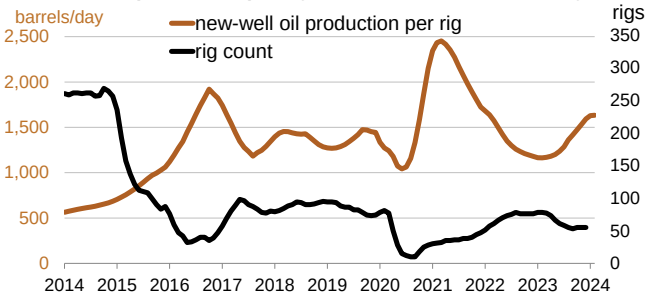
1,634 *February*
1,629 *January*
barrels/day

Monthly additions from one average rig

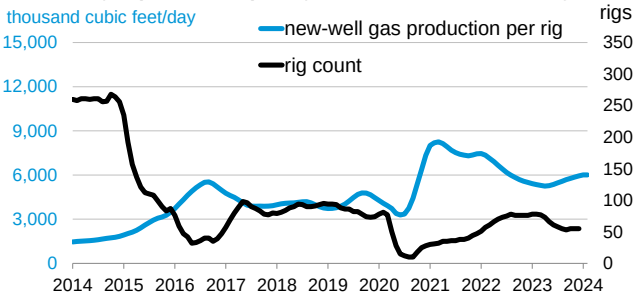
February **6,010**
January **6,004**
thousand cubic feet/day

Gas +6
thousand cubic feet/day
month over month

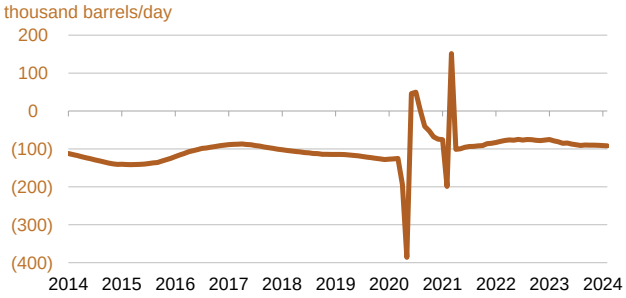
Eagle Ford Region
New-well oil production per rig



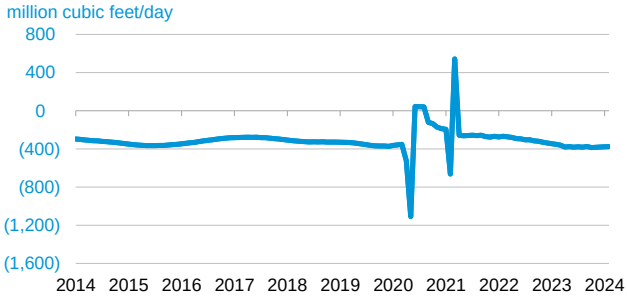
Eagle Ford Region
New-well gas production per rig



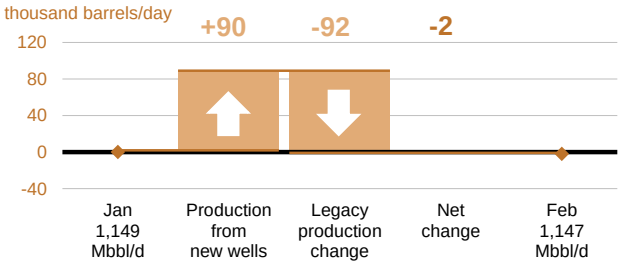
Eagle Ford Region
Legacy oil production change



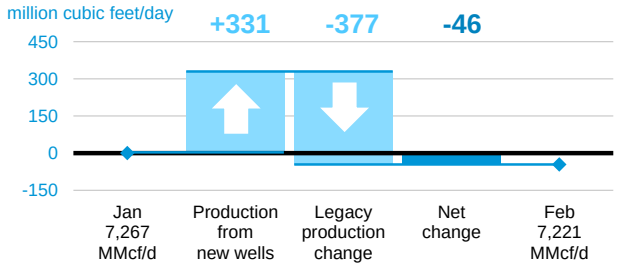
Eagle Ford Region
Legacy gas production change



Eagle Ford Region
Indicated change in oil production (Feb vs. Jan)

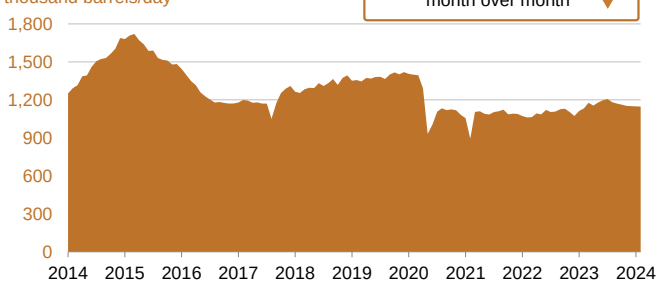


Eagle Ford Region
Indicated change in natural gas production (Feb vs. Jan)



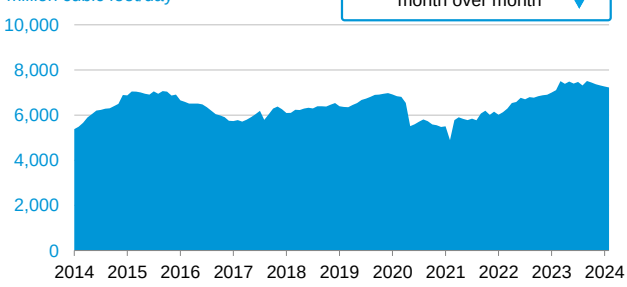
Eagle Ford Region
Oil production

Oil -2
thousand barrels/day
month over month



Eagle Ford Region
Natural gas production

Gas -46
million cubic feet/day
month over month



Haynesville Region

Drilling Productivity Report

January 2024

drilling data through December
projected production through February

Oil 0
barrels/day
month over month

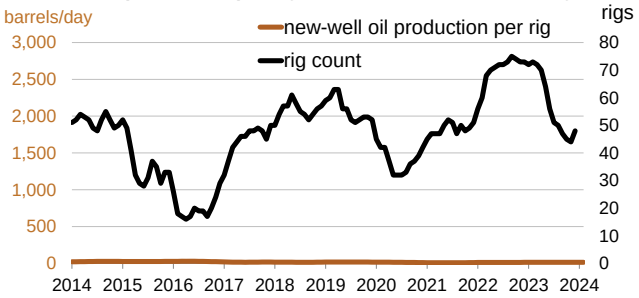
15 *February*
15 *January*
barrels/day

Monthly additions from one average rig

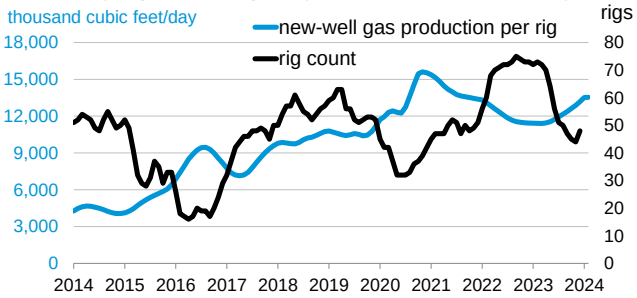
February **13,544**
January **13,517**
thousand cubic feet/day

Gas +27
thousand cubic feet/day
month over month

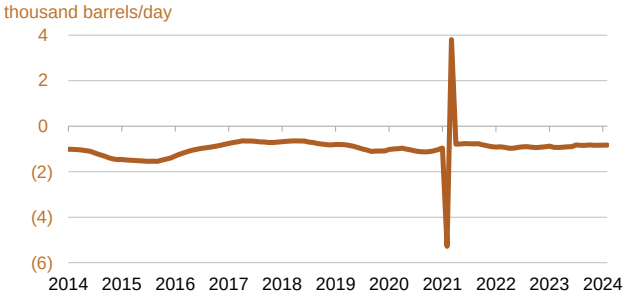
Haynesville Region
New-well oil production per rig



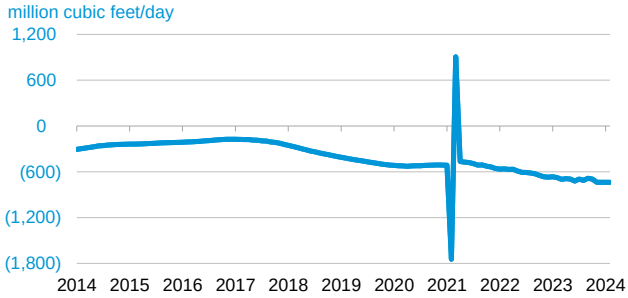
Haynesville Region
New-well gas production per rig



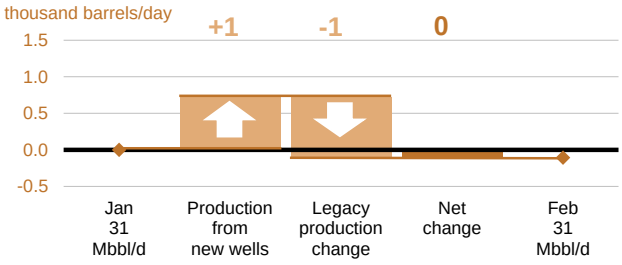
Haynesville Region
Legacy oil production change



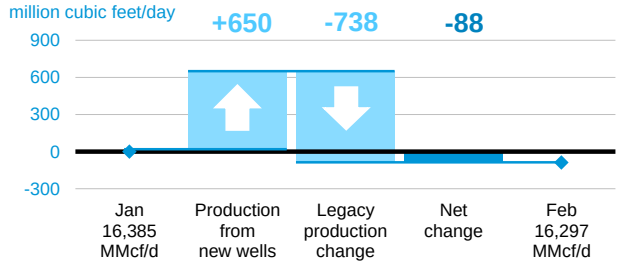
Haynesville Region
Legacy gas production change



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

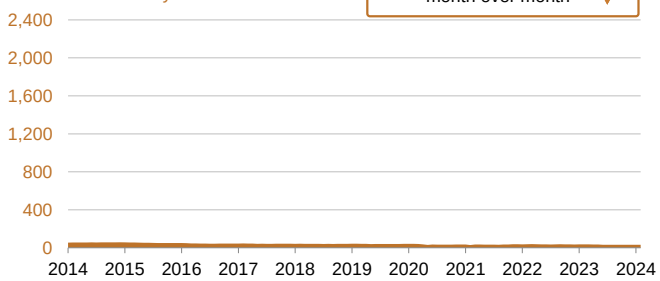


Haynesville Region
Indicated change in natural gas production (Feb vs. Jan)



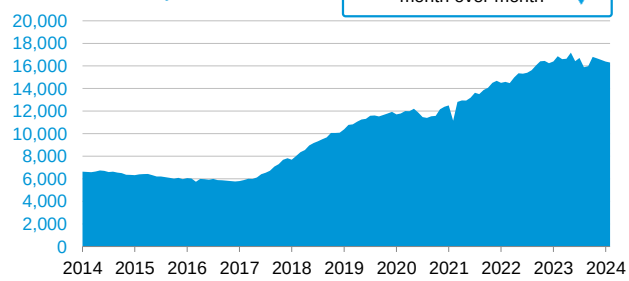
Haynesville Region
Oil production

Oil 0
thousand barrels/day
month over month



Haynesville Region
Natural gas production

Gas -88
million cubic feet/day
month over month



Niobrara Region

Drilling Productivity Report

January 2024

drilling data through December
projected production through February

Oil +2
barrels/day
month over month

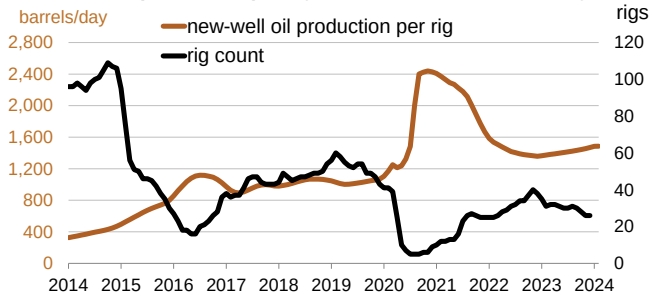
1,486 *February*
1,484 *January*
barrels/day

Monthly additions from one average rig

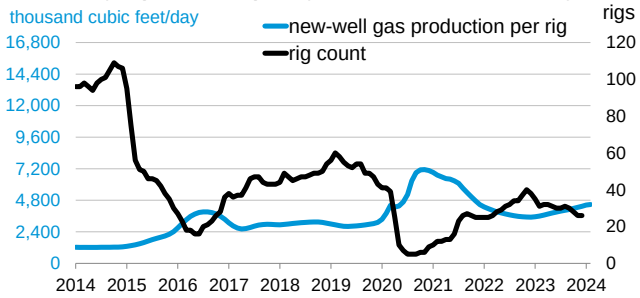
February **4,479**
January **4,434**
thousand cubic feet/day

Gas +45
thousand cubic feet/day
month over month

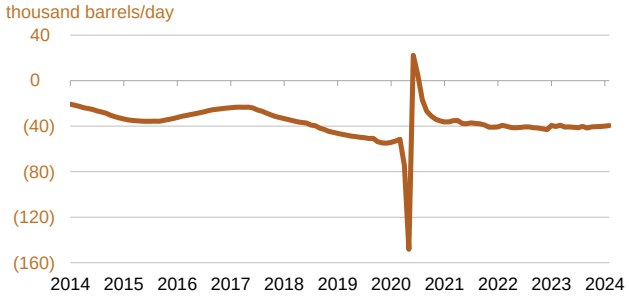
Niobrara Region
New-well oil production per rig



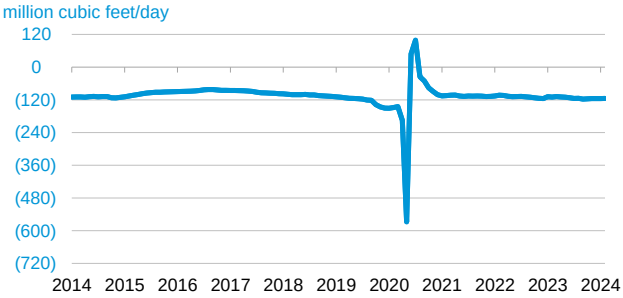
Niobrara Region
New-well gas production per rig



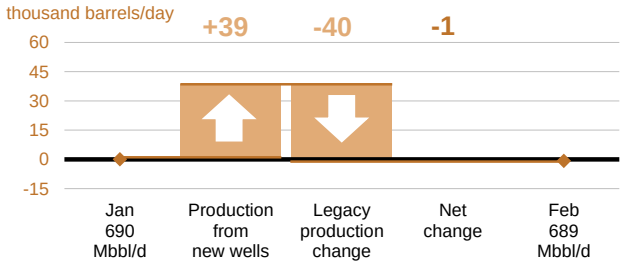
Niobrara Region
Legacy oil production change



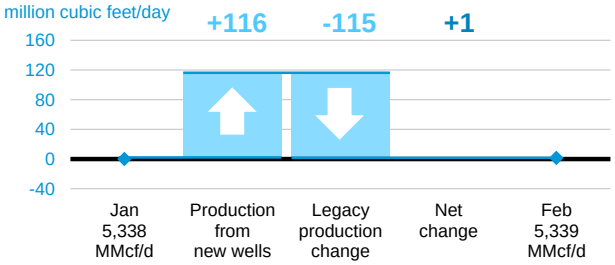
Niobrara Region
Legacy gas production change



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

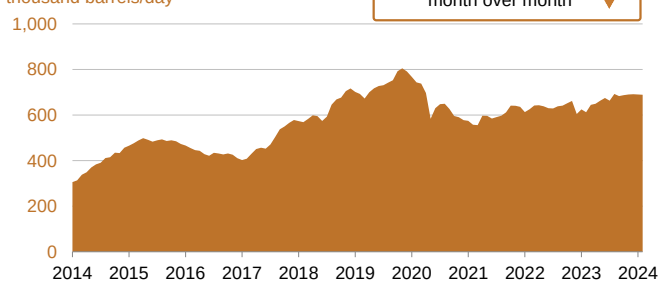


Niobrara Region
Indicated change in natural gas production (Feb vs. Jan)



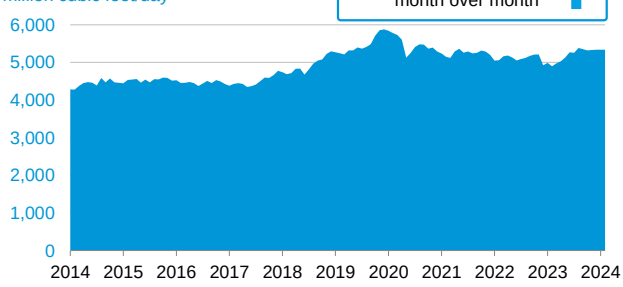
Niobrara Region
Oil production

Oil -1
thousand barrels/day
month over month



Niobrara Region
Natural gas production

Gas +1
million cubic feet/day
month over month



Permian Region

Drilling Productivity Report

January 2024

drilling data through December
projected production through February

Oil +13
barrels/day
month over month

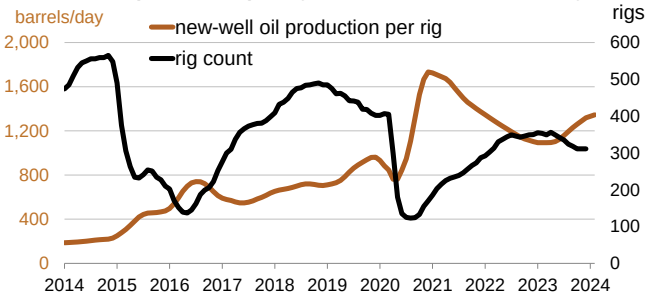
1,345 *February*
1,332 *January*
barrels/day

Monthly additions from one average rig

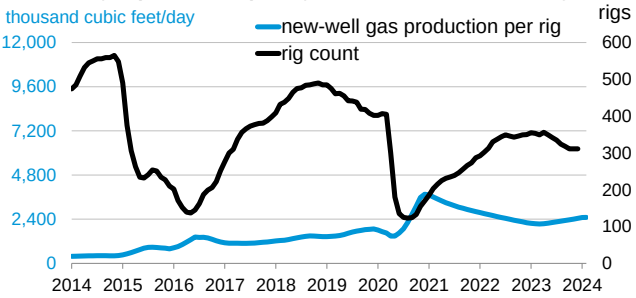
February **2,499**
January **2,488**
thousand cubic feet/day

Gas +11
thousand cubic feet/day
month over month

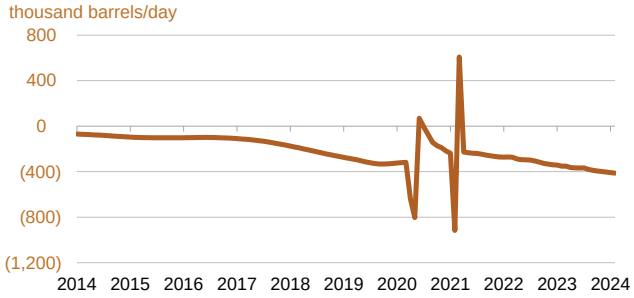
Permian Region
New-well oil production per rig



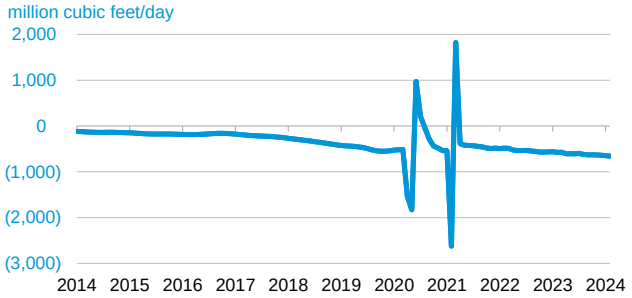
Permian Region
New-well gas production per rig



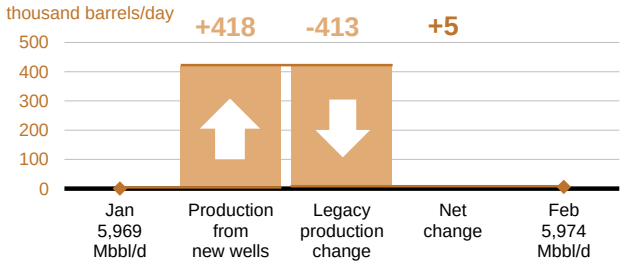
Permian Region
Legacy oil production change



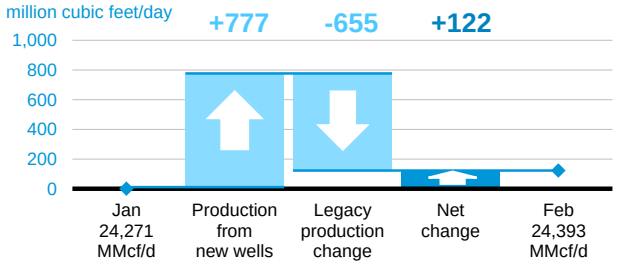
Permian Region
Legacy gas production change



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

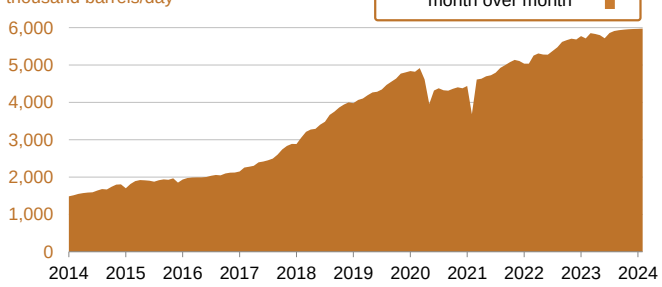


Permian Region
Indicated change in natural gas production (Feb vs. Jan)



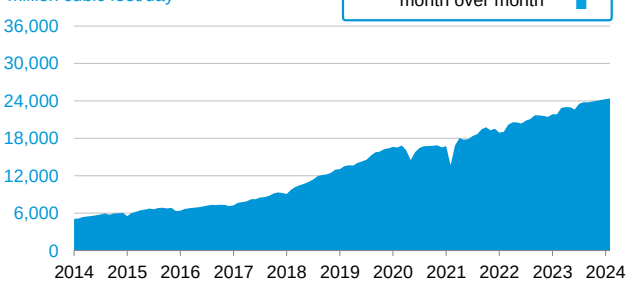
Permian Region
Oil production

Oil +5
thousand barrels/day
month over month



Permian Region
Natural gas production

Gas +122
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

https://mexicopacific.com/mexico-pacific-completes-option-for-additional-lng-offtake-with-exxonmobil/

Mexico Pacific Completes Option for Additional LNG Offtake with ExxonMobil

January 16, 2024

Mexico Pacific has signed a third long-term Sales and Purchase Agreement ("SPA") with ExxonMobil LNG Asia Pacific ("EMLAP") for an additional 1.2 million tonnes per annum ("MTPA") of Liquefied Natural Gas ("LNG") from Train 3 of Mexico Pacific's Saguaro Energia project located on the west coast of Mexico.

The volume originates from the option under the separate LNG SPAs executed in January 2023, covering volumes from Trains 1 and 2. Under the Train 3 LNG SPA, EMLAP will purchase LNG on a free-on-board basis over a 20-year term. There is also an option for another 1 MTPA from Train 4.

"We are pleased to announce this additional long-term SPA with ExxonMobil, extending our much-valued partnership into Train 3", said Ivan Van der Walt, CEO Mexico Pacific. "While we remain focused on initially taking FID on Trains 1 and 2, this latest LNG SPA with ExxonMobil concludes the LNG sales required for a subsequent Train 3 FID expected this year. With key contracting and permits in place across the terminal and pipeline, we are well positioned to sanction the project, connecting Permian Basin gas with the world's largest LNG markets in Asia to provide reliable and cost-effective LNG to support the energy transition."

"Bringing additional North American LNG to global markets advances energy security and helps to lower emissions in many countries with high energy demand," said Peter Clarke, ExxonMobil's Head of Global LNG and Senior Vice President. "Long term contracts play an essential role in underpinning the investments that will be required to advance the energy transition. We look forward to working with Mexico Pacific to continue growing our portfolio and deliver Permian natural gas to global markets."

About Mexico Pacific

Mexico Pacific's anchor project, the 15 MTPA Saguaro Energia LNG Facility, is the most advanced LNG development project on the West Coast of North America. The Saguaro Energia LNG Facility achieves significant cost and logistical advantages resulting in the lowest landed price of North American LNG into Asia by leveraging low-cost natural gas sourced from the nearby Permian Basin, and a significantly shorter shipping route avoiding Panama Canal transit risk for Asian markets.

More information can be found at http://www.mexicopacific.com.

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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.

Sea change in Asian LNG buyers is also the best validation of the LNG supply gap and big to LNG supply FIDs. 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.

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. 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.*

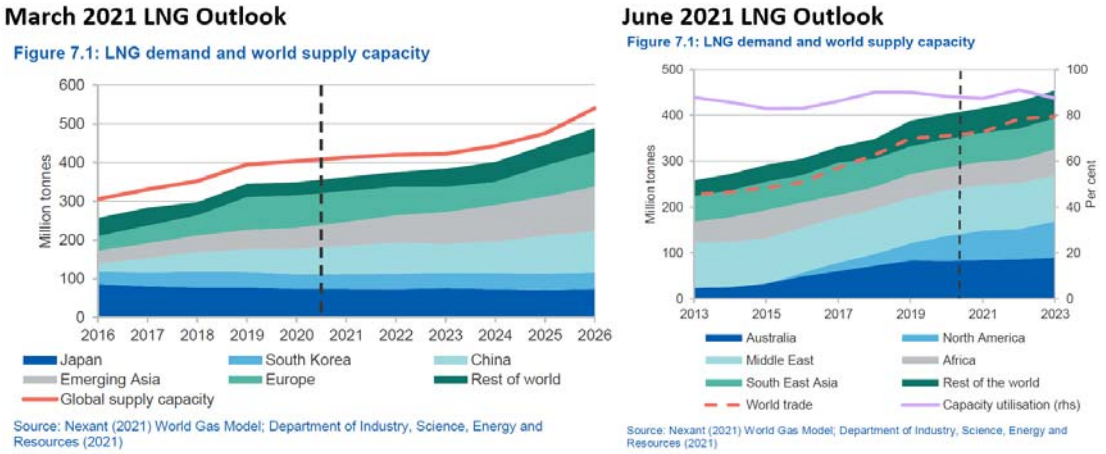
Common theme - new LNG supply is being delayed ie. [Total] Mozambique. Don't forget need capacity>demand due to normal maintenance, etc. Positive for LNG." (ii) Chevron's Gorgon. A big LNG story in H2/20 was the emergence of weld quality issues in the propane heat exchangers at Train 2, which required 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."*

Cheniere stopped the game playing the game on June 30. 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

But we still see major LNG suppliers like Australia hinting but not outright saying that LNG supply gap is coming sooner. 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

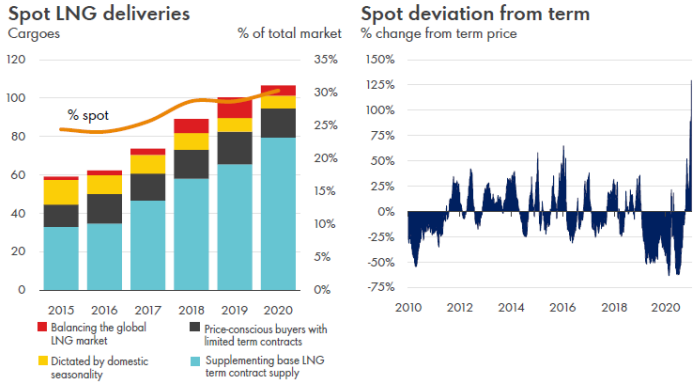


Source: Australia Resources and Energy Quarterly

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. 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.

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. 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

Asian LNG buyers moving to long term LNG deals provide financing capacity for brownfield LNG FIDs. 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.

Four Asian buyer long term LNG deals in the last week. 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.

> Petronas/CNOOC is 10 yr supply deal for 0.3 bcf/d. 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."*
>
> Qatar Petroleum/CPC (Taiwan) is 15 yr supply deal for 0.16 bcf/d. 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.

Highlights for the month

- Indigenous crude oil and condensate production during December 2023 was 2.5 MMT. OIL registered a production of 0.3 MMT, ONGC registered a production of 1.6 MMT whereas PSC/RSC registered production of 0.6 MMT during December 2023. There is a degrowth of 1.03% in crude oil and condensate production during December 2023 as compared to December 2022.
- Total Crude oil processed during December 2023 was 22.7 MMT which is 1.9% higher than December 2022, where PSU/JV refiners processed 15.7 MMT and private refiners processed 7.0 MMT of crude oil. Total indigenous crude oil processed was 2.6 MMT and total Imported crude oil processed was 20.1 by all Indian refineries (PSU+JV+PVT). There was a growth of 3.3 % in total crude oil processed in April December FY 2023 – 24 as compared to same period of FY 2022 – 23.
- Crude oil imports increased by 1.1% and 0.4% during December 2023 and April-December 2023 respectively as compared to the corresponding period of the previous year.As compared to net import bill for Oil & Gas for December 2022 of $10.2 billion, the net import bill for Oil & Gas for December 2023 was $10.3 billion. Out of which, crude oil imports constitutes $11.4 billion, LNG imports $1.1 billion and the exports were $4.2 billion during December 2023.
- The price of Brent Crude averaged $77.91/bbl during December 2023 as against $83.18/bbl during November 2023 and $81.12/bbl during December 2022. The Indian basket crude price averaged $77.42/bbl during December 2023 as against $83.46/bbl during November 2023 and $78.10 /bbl during December 2022.
- Production of petroleum products was 24.5 MMT during December 2023 which is 4.0% higher than December 2022. Out of 24.5 MMT, 24.2 MMT was from refinery production & 0.3 MMT was from fractionator. There was a growth of 4.9 % in production of petroleum products in April December FY 2023 – 24 as compared to same period of FY 2022 – 23. Out of total POL production, in December 2023, share of HSD is 41.7 %, MS 17.4 %, Naphtha 6.1 %, ATF 6.1 %, Pet Coke 5.5 %, LPG 4.8% which are of major products and rest are shared by Bitumen, FO/LSHS, LDO, Lubes & others.
- POL products imports decreased by 3.0% and increased by 10.1% during December 2023 and April-December 2023 respectively as compared to the corresponding period of the previous year. Increase in POL products imports during April-December 2023 were mainly due to increase in imports of petcoke, bitumen and fuel oil (FO).

•	Exports of POL products decreased by 4.8% and increased by 1.8% during December 2023 and April-December 2023 respectively as compared to the corresponding period of the previous year. Increase in POL products exports during April-December 2023 were mainly due to increase in exports of aviation turbine fuel (ATF) and motor-spirit (MS)
•	The consumption of petroleum products during April-December 2023, with a volume of 172.7 MMT, reported a growth of 4.9 % compared to the volume of 164.60 MMT during the same period of the previous year. This growth was led by 5.7% growth in MS, 4.4% in HSD & 12.4% in ATF & 15.4% in Naptha consumption besides LPG, Lubes, Bitumen, Petcoke and LDO during the period. The consumption of petroleum products during December 2023 recorded growth of 2.6% with a volume of 20.1 MMT compared to the same period of the previous year.
•	Ethanol blending with Petrol was 11.1% during December 2023 and cumulative ethanol blending during November2023- December 2023 was 10.7%.
•	Total Natural Gas Consumption (including internal consumption) for the month of December 2023 was 5472 MMSCM which was 8.9% higher than the corresponding month of the previous year. The cumulative consumption of 49540 MMSCM for the current financial year till December 2023 was higher by 9.4% compared with the corresponding period of the previous year.
•	Gross production of natural gas for the month of December 2023 (P) was 3132 MMSCM which was higher by 6.1 % compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 27213 MMSCM for the current financial year till December 2023 was higher by 5.2 % compared with the corresponding period of the previous year.
•	LNG import for the month of December 2023 (P) was 2393 MMSCM which was 12.1% higher than the corresponding month of the previous year. The cumulative import of 22856 (P) MMSCM for the current financial year till December 2023 was higher by 14.2% compared with the corresponding period of the previous year.

1. Selected indicators of the Indian economy

	Economic indicators	Unit/ Base	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	Population (basis RGI projections)	Billion	1.323	1.337	1.351	1.365	1.377	1.388
2	GDP at constant (2011-12 Prices)	Growth %	6.5 2nd RE	4.0 1st RE	-6.6 1st RE	9.1 1st RE	7.2 PE	7.3 H1, 2023-24 (E)
3	Agricultural Production (Food grains)	MMT	285.2	297.5	310.7	315.7 4th AE	323.6 2nd AE	-
		Growth %	0.1	4.3	4.5	1.6	2.5	-
4	Gross Fiscal Deficit (as percent of GDP)	%	3.4	4.6	9.5 RE	6.7 RE	6.4 RE	7.8 (Q1) E

	Economic indicators	Unit/ Base	2021-22	2022-23	December		April-December	
					2022-23	2023-24 (P)	2022-23	2023-24 (P)
5	Index of Industrial Production (Base: 2011-12)	Growth %	11.4	5.5#	7.6*	2.4* QE	5.6#	6.4#
6	Imports^	$ Billion	611.9	714.2	61.2	58.3	548.6	505.2
7	Exports^	$ Billion	422.0	451.0	38.1	38.5	336.3	317.1
8	Trade Balance	$ Billion	-189.9	-263.2	-23.1	-19.8	-212.3	-188.0
9	Foreign Exchange Reserves @	$ Billion	617.6	578.4	562.9	623.2	-	-

Population projection by RGI is taken as on 1st July for the year. IIP is for the month of *Nov'23 and #April-Nov'23; @ 2021-22 - as on March 25, 2022, 2022-23 as on March 31, 2023, December 2022 as on December 30, 2022 and December, 2023 as on December 29, 2023; ^Imports & Exports are for Merchandise for the month of December 2023; E: Estimates; PE: Provisional Estimates; AE-Advanced Estimates; RE-Revised Estimates; QE-Quick Estimates.

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

2. Crude oil, LNG and petroleum products at a glance

	Details	Unit/ Base	2021-22 (P)	2022-23 (P)	December		April-December	
					2022-23 (P)	2023-24 (P)	2022-23 (P)	2023-24 (P)
1	Crude oil production in India[#]	MMT	29.7	29.2	2.5	2.5	22.1	22.0
2	Consumption of petroleum products*	MMT	201.7	223.0	19.5	20.1	164.6	172.7
3	Production of petroleum products	MMT	254.3	266.5	23.6	24.5	196.1	205.7
4	Gross natural gas production	MMSCM	34,024	34,450	2,951	3,132	25,868	27,213
5	Natural gas consumption	MMSCM	64,159	59,969	5,023	5,472	45,278	49,541
6	Imports & exports:							
	Crude oil imports	MMT	212.4	232.7	19.6	19.8	172.3	172.9
		$ Billion	120.7	157.5	11.4	11.4	124.9	98.4
	Petroleum products (POL) imports*	MMT	39.0	44.6	4.1	3.9	32.7	36.0
		$ Billion	23.7	26.9	2.2	2.0	20.5	17.3
	Gross petroleum imports (Crude + POL)	MMT	251.4	277.3	23.7	23.8	205.0	209.0
		$ Billion	144.3	184.4	13.6	13.4	145.4	115.7
	Petroleum products (POL) export	MMT	62.8	61.0	5.7	5.4	45.4	46.2
		$ Billion	44.4	57.3	4.5	4.2	44.9	35.7
	LNG imports*	MMSCM	31,028	26,304	2,136	2,393	20,011	22,856
		$ Billion	13.5	17.1	1.1	1.1	13.7	9.9
	Net oil & gas imports	$ Billion	113.4	144.2	10.2	10.3	114.2	89.9
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	23.6	25.8	23.9	24.6	29.8	26.0
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	10.5	12.7	12.9	12.3	15.1	12.8
9	Import dependency of crude oil (on POL consumption basis)	%	85.5	87.4	87.3	86.5	87.0	87.5

#Includes condensate; *Private direct imports are prorated for the period Nov'23 to Dec'23 for POL. RIL data prorated. LNG Imports figure from DGCIS are prorated for Nov'23 to December 2023.Total may not tally due to rounding off.

3. Indigenous crude oil production (Million Metric Tonnes)

Details	2021-22	2022-23 (P)	December			April-December		
			2022-23 (P)	2023-24 Target*	2023-24 (P)	2022-23 (P)	2023-24 Target*	2023-24 (P)
ONGC	18.5	18.4	1.6	1.6	1.5	14.0	14.5	13.6
Oil India Limited (OIL)	3.0	3.2	0.3	0.3	0.3	2.4	2.5	2.5
Private / Joint Ventures (JVs)	7.0	6.2	0.5	0.6	0.5	4.8	5.5	4.3
Total Crude Oil	**28.4**	**27.8**	**2.4**	**2.5**	**2.3**	**21.1**	**22.6**	**20.4**
ONGC condensate	0.9	1.0	0.1	0.0	0.1	0.8	0.0	0.8
PSC condensate	0.3	0.31	0.03	0.0	0.1	0.2	0.0	0.8
Total condensate	**1.2**	**1.4**	**0.12**	**0.0**	**0.2**	**1.0**	**0.0**	**1.6**
Total (Crude + Condensate) (MMT)	**29.7**	**29.2**	**2.5**	**2.5**	**2.5**	**22.1**	**22.6**	**22.0**
Total (Crude + Condensate) (Million Bbl/Day)	0.60	0.59	0.59	0.59	0.58	0.59	0.60	0.59

*Provisional targets inclusive of condensate.

4. Domestic and overseas oil & gas production (by Indian Companies)

Details	2021-22	2022-23 (P)	December		April-December	
			2022-23 (P)	2023-24 (P)	2022-23 (P)	2023-24 (P)
Total domestic production (MMTOE)	63.7	63.6	5.4	5.6	47.9	49.2
Overseas production (MMTOE)	21.8	19.5	1.5	1.7	14.2	14.9

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

5. High Sulphur (HS) & Low Sulphur (LS) crude oil processing (MMT)

	Details	2021-22	2022-23 (P)	December		April-December	
				2022-23 (P)	2023-24 (P)	2022-23 (P)	2023-24 (P)
1	High Sulphur crude	185.0	197.9	17.0	18.0	145.7	151.5
2	Low Sulphur crude	56.7	57.4	5.2	4.7	42.9	43.2
Total crude processed (MMT)		**241.7**	**255.2**	**22.3**	**22.7**	**188.6**	**194.7**
Total crude processed (Million Bbl/Day)		4.85	5.13	5.27	5.36	5.03	5.19
Percentage share of HS crude in total crude oil processing		**76.6%**	**77.5%**	**76.5%**	**79.2%**	**77.3%**	**77.8%**

6. Quantity and value of crude oil imports			
Year	**Quantity (MMT)**	**$ Million**	**Rs. Crore**
2021-22	212.4	1,20,675	9,01,262
2022-23	232.7	1,57,531	12,60,372
April-Dec 2023-24(P)	172.9	98,375	8,13,733

7. Self-sufficiency in petroleum products (Million Metric Tonnes)							
Particulars		**2021-22**	**2022-23 (P)**	**December**		**April-December**	
				2022-23 (P)	**2023-24 (P)**	**2022-23 (P)**	**2023-24 (P)**
1	Indigenous crude oil processing	27.0	26.4	2.3	2.6	20.1	20.3
2	Products from indigenous crude (93.3% of crude oil processed)	25.2	24.7	2.2	2.4	18.8	18.9
3	Products from fractionators (Including LPG and Gas)	4.1	3.5	0.3	0.3	2.7	2.6
4	Total production from indigenous crude & condensate **(2 + 3)**	29.3	28.2	2.5	2.7	21.4	21.5
5	Total domestic consumption	201.7	223.0	19.5	20.1	164.6	172.7
% Self-sufficiency (4 / 5)		**14.5%**	**12.6%**	**12.7%**	**13.5%**	**13.0%**	**12.5%**

8. Refineries: Installed capacity and crude oil processing (MMTPA / MMT)										
Sl. no.	Refinery	Installed capacity (01.04.2023) MMTPA	Crude oil processing (MMT)							
			2021-22	2022-23 (P)	December			April-December		
					2022-23 (P)	2023-24 (Target)	2023-24 (P)	2022-23 (P)	2023-24 (Target)	2023-24 (P)
1	Barauni (1964)	6.0	5.6	6.8	0.5	0.6	0.6	5.1	5.0	5.0
2	Koyali (1965)	13.7	13.5	15.6	1.3	1.3	1.3	11.7	10.6	11.4
3	Haldia (1975)	8.0	7.3	8.5	0.7	0.7	0.7	6.4	5.5	5.9
4	Mathura (1982)	8.0	9.1	9.6	0.9	0.9	0.8	7.1	6.8	6.8
5	Panipat (1998)	15.0	14.8	13.8	0.9	1.2	1.2	10.0	10.7	11.3
6	Guwahati (1962)	1.0	0.7	1.1	0.07	0.09	0.1	0.8	0.7	0.7
7	Digboi (1901)	0.65	0.7	0.7	0.06	0.06	0.07	0.5	0.5	0.5
8	Bongaigaon(1979)	2.70	2.6	2.8	0.3	0.2	0.3	2.0	2.2	2.3
9	Paradip (2016)	15.0	13.2	13.6	1.4	1.3	1.4	9.6	11.4	11.2
	IOCL-TOTAL	**70.1**	**67.7**	**72.4**	**6.2**	**6.4**	**6.5**	**53.2**	**53.4**	**55.0**
10	Manali (1969)	10.5	9.0	11.3	1.0	0.9	0.8	8.4	7.5	8.6
11	CBR (1993)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CPCL-TOTAL	**10.5**	**9.0**	**11.3**	**1.0**	**0.9**	**0.8**	**8.4**	**7.5**	**8.6**
12	Mumbai (1955)	12.0	14.4	14.5	1.3	1.3	1.4	10.5	10.7	11.1
13	Kochi (1966)	15.5	15.4	16.0	1.5	1.4	1.6	11.5	11.8	13.0
14	Bina (2011)	7.8	7.4	7.8	0.7	0.7	0.7	5.8	5.1	5.1
	BPCL-TOTAL	**35.3**	**37.2**	**38.4**	**3.6**	**3.3**	**3.6**	**27.8**	**27.6**	**29.2**
15	Numaligarh (1999)	3.0	2.6	3.1	0.3	0.3	0.3	2.4	2.0	1.7

Sl. no.	Refinery	Installed capacity (01.04.2023) MMTPA	Crude oil processing (MMT)							
			2021-22	2022-23	December			April-December		
					2022-23	2023-24 (Target)	2023-24 (P)	2022-23	2023-24 (Target)	2023-24 (P)
16	Tatipaka (2001)	0.07	0.08	0.07	0.01	0.006	0.006	0.06	0.05	0.05
17	MRPL-Mangalore (1996)	15.0	14.9	17.1	1.5	1.5	1.6	12.7	11.6	12.0
	ONGC-TOTAL	**15.1**	**14.9**	**17.2**	**1.5**	**1.5**	**1.6**	**12.8**	**11.6**	**12.1**
18	Mumbai (1954)	9.5	5.6	9.8	0.9	0.5	0.8	7.3	6.7	7.6
19	Visakh (1957)	11.0	8.4	9.3	0.8	1.1	0.9	6.8	8.7	8.9
20	HMEL-Bathinda (2012)	11.3	13.0	12.7	1.1	1.0	1.1	9.5	8.5	9.8
	HPCL- TOTAL	**31.8**	**27.0**	**31.8**	**2.8**	**2.6**	**2.9**	**23.6**	**23.9**	**26.3**
21	RIL-Jamnagar (DTA) (1999)	33.0	34.8	34.4	2.8	2.8	2.8	26.2	26.2	25.7
22	RIL-Jamnagar (SEZ) (2008)	35.2	28.3	27.9	2.5	2.5	2.5	20.5	20.5	20.9
23	NEL-Vadinar (2006)	20.0	20.2	18.7	1.7	1.7	1.7	13.7	13.7	15.2
All India (MMT)		**253.9**	**241.7**	**255.2**	**22.3**	**22.0**	**22.7**	**188.6**	**186.4**	**194.7**
All India (Million Bbl/Day)		**5.02**	**4.85**	**5.13**	**5.27**	**5.20**	**5.36**	**5.03**	**4.97**	**5.19**

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

9. Major crude oil and product pipeline network (as on 01.01.2024)

Details		ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Others*	Total
Crude Oil	Length (KM)	1,284	1,193	688	1,017	5,819	937			**10,938**
	Cap (MMTPA)	60.6	9.0	10.7	11.3	53.8	7.8			**153.1**
Products	Length (KM)		654			12,235	2,600	5,123	2,399	**23,011**
	Cap (MMTPA)		1.7			70.6	22.6	35.2	10.2	**140.3**

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

11. Production and consumption of petroleum products (Million Metric Tonnes)												
Products	**2021-22**		**2022-23 (P)**		**Dec- 2022**		**Dec-2023 (P)**		**Apr-Dec 2022**		**Apr-Dec 2023 (P)**	
	Prod	**Cons**	**Prod**	**Cons**	**Prod**	**Cons**	**Prod**	**Cons**	**Prod**	**Cons**	**Prod**	**Cons**
LPG	12.2	28.3	12.8	28.5	1.1	2.6	1.2	2.6	9.6	21.2	9.5	21.7
MS	40.2	30.8	42.8	35.0	3.7	3.0	4.3	3.0	31.4	26.3	33.5	27.8
NAPHTHA	20.0	13.2	17.0	12.2	1.4	1.0	1.5	1.3	12.7	8.8	13.3	10.2
ATF	10.3	5.0	15.0	7.4	1.3	0.7	1.5	0.7	10.9	5.4	12.6	6.1
SKO	1.9	1.5	0.9	0.5	0.0	0.0	0.1	0.0	0.7	0.4	0.8	0.4
HSD	107.2	76.7	113.8	85.9	10.0	7.8	10.2	7.6	83.9	63.9	86.8	66.8
LDO	0.8	1.0	0.6	0.7	0.04	0.1	0.05	0.1	0.4	0.5	0.5	0.6
LUBES	1.2	4.5	1.3	3.7	0.1	0.3	0.1	0.3	0.9	2.7	1.0	3.0
FO/LSHS	8.9	6.3	10.4	7.0	0.9	0.6	0.8	0.6	8.0	5.2	8.0	4.9
BITUMEN	5.1	7.8	4.9	8.0	0.4	0.7	0.5	0.8	3.4	5.4	3.6	6.2
PET COKE	15.5	14.3	15.4	18.3	1.4	1.4	1.3	1.6	11.3	13.4	11.2	14.5
OTHERS	30.9	12.3	31.5	15.8	3.2	1.3	3.0	1.4	23.0	11.4	24.9	10.6
ALL INDIA	**254.3**	**201.7**	**266.5**	**223.0**	**23.6**	**19.5**	**24.5**	**20.1**	**196.1**	**164.6**	**205.7**	**172.7**
Growth (%)	**-3.1%**	**-5.4%**	**4.8%**	**10.6%**	**3.7%**	**3.4%**	**4.0%**	**2.6%**	**5.4%**	**12.0%**	**4.9%**	**4.9%**

Note: Prod - Production; Cons - Consumption

15. LPG consumption (Thousand Metric Tonne)

LPG categorv	2021-22	2022-23	December			April-December		
			2022-23	2023-24 (P)	Growth (%)	2022-23	2023-24 (P)	Growth (%)
1. PSU Sales :								
LPG-Packed Domestic	25,501.6	25,381.5	2,253.9	2,334.2	3.6%	18,891.4	19,188.1	1.6%
LPG-Packed Non-Domestic	2,238.8	2,606.0	266.4	241.7	-9.3%	1,922.2	2,055.1	6.9%
LPG-Bulk	390.9	408.9	40.3	45.6	13.2%	302.9	434.4	43.4%
Auto LPG	122.0	106.7	9.0	6.7	-25.3%	82.4	68.2	-17.2%
Sub-Total (PSU Sales)	28,253.3	28,503.1	**2,569.6**	**2,628.3**	**2.3%**	**21,198.9**	**21,745.9**	**2.6%**
2. Direct Private Imports*	0.1	0.1	0.03	0.01	-70.2%	0.05	0.05	14.4%
Total (1+2)	28,253.4	28,503.2	**2,569.6**	**2,628.3**	**2.3%**	**21,198.9**	**21,745.9**	**2.6%**

*Nov-Dec'23 DGCIS data is prorated

16. LPG marketing at a glance

Particulars (As on 1st of April)	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	1.01.24 (P)
LPG Active Domestic Customers	(Lakh)				1486	1663	1988	2243	2654	2787	2895	3053	3140	3199
	Growth					11.9%	19.6%	12.8%	18.3%	5.0%	3.9%	5.5%	2.9%	2.0%
LPG Coverage (Estimated)	(Percent)				56.2	61.9	72.8	80.9	94.3	97.5	99.8	-	-	-
	Growth					10.1%	17.6%	11.1%	16.5%	3.4%	2.3%	-	-	-
PMUY Beneficiaries	(Lakh)						200.3	356	719	802	800	899.0	958.6	1001.3
	Growth							77.7%	101.9%	11.5%	-0.2%	12.2%	6.6%	4.4%
LPG Distributors	(No.)	11489	12610	13896	15930	17916	18786	20146	23737	24670	25083	25269	25386	25449
	Growth	9.0%	9.8%	10.2%	14.6%	12.5%	4.9%	7.2%	17.8%	3.9%	1.7%	0.7%	0.5%	0.4%
Auto LPG Dispensing Stations	(No.)	652	667	678	681	676	675	672	661	657	651	601	526	475
	Growth	7.9%	2.3%	1.6%	0.4%	-0.7%	-0.1%	-0.4%	-1.6%	-0.6%	-0.9%	-8.5%	-12.5%	-16.2%
Bottling Plants	(No.)	184	185	187	187	188	189	190	192	196	200	202	208	210
	Growth	0.5%	0.5%	1.1%	0.0%	0.5%	0.5%	0.5%	1.1%	2.1%	2.0%	1.0%	4.5%	1.9%

Source: PSU OMCs (IOCL,BPCL and HPCL)

1.Growth rates as on 01.12.2023 are with respect to figs as on 01.12.2022. Growth rates as on 1 April of any year are with respect to figs as on 1 April of previous year.

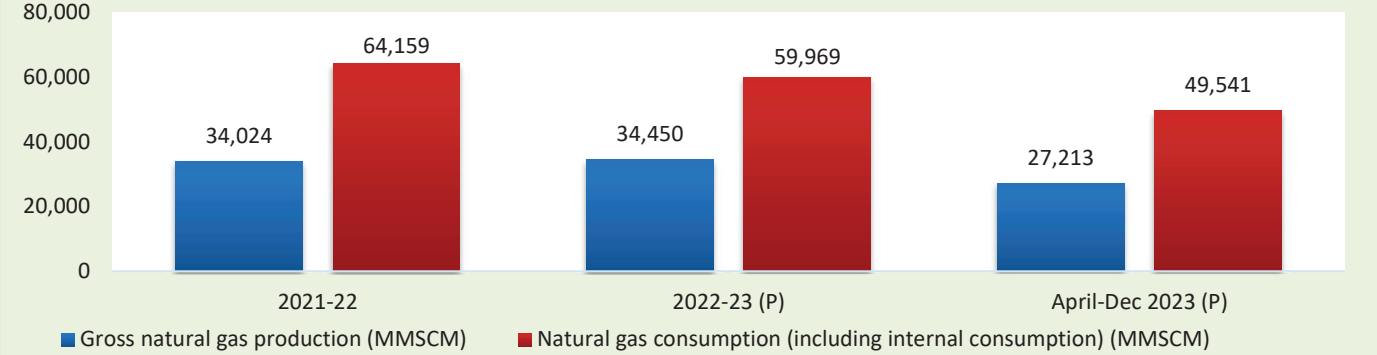
2. The LPG coverage is calculated by PSU OMCs based upon the active LPG domestic connections and the estimated number of households. The number of households has been projected by PSU OMCs based on 2011 census data. Factors like increasing nuclearization of families, migration of individuals/ families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

18. Natural gas at a glance

(MMSCM)

Details	2021-22 (P)	2022-23 (P)	December			April-December		
			2022-23 (P)	2023-24 (Target)	2023-24 (P)	2022-23 (P)	2023-24 (Target)	2023-24 (P)
(a) Gross production	34,024	34,450	2,951	3,296	3,132	25,868	28,387	27,213
- ONGC	20,629	19,969	1,680	1,687	1,605	15,057	15,496	14,550
- Oil India Limited (OIL)	2,893	3,041	257	273	263	2,295	2,368	2,311
- Private / Joint Ventures (JVs)	10,502	11,440	1,014	1,336	1,264	8,516	10,524	10,352
(b) Net production (excluding flare gas and loss)	33,131	33,664	2,888		3,079	25,267		26,685
(c) LNG import#	31,028	26,304	2,136		2,393	20,011		22,856
(d) Total consumption including internal consumption (b+c)	64,159	59,969	5,023		5,472	45,278		49,541
(e) Total consumption **(in BCM)**	64.2	60.0	5.0		5.5	45.3		49.5
(f) Import dependency based on consumption (%), {c/d*100}	48.4	43.9	42.5		43.7	44.2		46.136

December 2023 DGCIS data prorated.



19. Coal Bed Methane (CBM) gas development in India

Prognosticated CBM resources		91.8	TCF
Established CBM resources		10.4	TCF
CBM Resources (33 Blocks)		62.8	TCF
Total available coal bearing areas (India)		32760	Sq. KM
Total available coal bearing areas with MoPNG/DGH		12254*	Sq. KM
Area awarded		21,177**	Sq. KM
Blocks awarded*		39	Nos.
Exploration initiated (Area considered if any boreholes were drilled in the awarded block)		10670	Sq. KM
Production of CBM gas	April-Dec 2023 (P)	486.14	MMSCM
Production of CBM gas	Dec 2023 (P)	53.92	MMSCM

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

19a. Status of Compressed Bio Gas (CBG) projects under SATAT (as on 01.01.2024) (Provisional)

Particulars	Units	IOCL	HPCL	BPCL	GAIL#	IGL	Total
No. of CBG plants commissioned and initiated sale of CBG	No. of plants	25	7	5	10	5	**52**
Start of CBG sale from retail outlet(s)	Nos.	69	34	45	1	3	**152**
Sale of CBG in 2022-23	Tons	5,822	77	6	5322		**11,227**
Sale of CBG in 2023-24 (up to December, 2023)	Tons	4622	153	27	6579*		**11421**
Sale of CBG in CGD network	GA Nos.				21		**21**

#Sale of CBG sourced under CBG-CGD synchronization by GAIL through its own marketing channels and other CGDs/OMCs. *Sale through synchronization is upto November'2023.

20. Common Carrier Natural Gas pipeline network as on 30.09.2023

Nature of pipeline		GAIL	GSPL	PIL	IOCL	AGCL	RGPL	GGL	DFPCL	ONGC	GIGL	GITL	Others*	Total
Operational	Length	11,007	2,716	1,479	143	107	304	73	42	24	0	0	0	**15,895**
	Capacity	167.2	43.0	85.0	20.0	2.4	3.5	5.1	0.7	6.0				-
Partially commissioned#	Length	4,714	0	0	1,040	0	0	0	0	0	1,285	0	365	**7,403**
	Capacity	55.0	0.0	0.0	84.7	0.0	0.0	0.0	0.0	0.0	122.5	0.0	0.0	-
Total operational length		**15,720**	**2,716**	**1,479**	**1,183**	**107**	**304**	**73**	**42**	**24**	**1,285**	**0**	**365**	**23,298**
Under construction	Length	3,955	100	0	456	0	0	0	0	0	916	220	4,361	**10,009**
	Capacity	26.3	3.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0	-
Total length		**19,676**	**2,816**	**1,479**	**1,639**	**107**	**304**	**73**	**42**	**24**	**2,201**	**220**	**4,726**	**33,307**

Source: PNGRB; Length in KMs ; Authorized Capacity in MMSCMD (Arithmetic sum taken for each entity -capacity may vary from pipeline to pipeline); *Others-APGDC, , IGGL, IMC,GTIL,HPPL Consortium of H-Energy. Total authorized Natural Gas pipelines including Tie-in connectivity, dedicated & STPL is 33,307 Kms (P),however total operational and Under Construction Pipeline length is 35,483Kms (P)

21. Existing LNG terminals

Location	Promoters	Capacity as on 01.01.2024	% Capacity utilisation (April-Nov 2023)
Dahej	Petronet LNG Ltd (PLL)	17.5 MMTPA	94.4
Hazira	Shell Energy India Pvt. Ltd.	5.2 MMTPA	34.6
Dabhol	Konkan LNG Limited	*5 MMTPA	35.5
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	19.8
Ennore	Indian Oil LNG Pvt Ltd	5 MMTPA	17.2
Mundra	GSPC LNG Limited	5 MMTPA	11.6
Dhamra	Adani Total Private Limited	5 MMTPA	25.4
Total Capacity		**47.7 MMTPA**	

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

22. Status of PNG connections and CNG stations across India (Nos.), as on 30.11.2023(P)				
State/UT (State/UTs are clubbed based on the GAs authorised by PNGRB)	CNG Stations	PNG connections		
		Domestic	Commercial	Industrial
Andhra Pradesh	169	2,65,181	458	36
Andhra Pradesh, Karnataka & Tamil Nadu	42	6,097	1	6
Assam	7	53,754	1,383	453
Bihar	117	1,16,961	102	4
Bihar & Jharkhand	6	7,723	3	0
Bihar & Uttar Pradesh	14	0	0	0
Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	27	26,427	151	39
Chhattisgarh	13	0	0	0
Dadra & Nagar Haveli (UT)	6	11,791	57	60
Daman & Diu (UT)	5	5,169	60	45
Daman and Diu & Gujarat	15	3,657	20	0
Goa	12	11,562	28	37
Gujarat	1,006	31,72,749	23,132	5,782
Haryana	341	3,49,267	852	2,082
Haryana	21	20,447	126	53
Haryana & Himachal Pradesh	10	20	0	0
Haryana & Punjab	26	763	0	0
Himachal Pradesh	11	6,876	17	0
Jharkhand	87	1,16,462	20	3
Karnataka	336	4,13,078	558	344
Kerala	120	55,195	31	18
Kerala & Puducherry	10	462	0	0
Madhya Pradesh	260	2,21,669	429	487
Madhya Pradesh and Chhattisgrah	7	0	0	0
Madhya Pradesh and Rajasthan	34	608	0	0
Madhya Pradesh and Uttar Pradesh	16	0	0	3
Maharashtra	819	32,03,105	4,754	949
Maharashtra & Gujarat	61	1,87,645	8	28
Maharashtra and Madhya Pradesh	13	0	0	0

State/UT (State/UTs are clubbed based on the GAs authorised by PNGRB)	CNG Stations	PNG connections		
		Domestic	Commercial	Industrial
National Capital Territory of Delhi (UT)	481	15,06,457	3,791	1,861
Odisha	73	96,735	7	0
Puducherry	2	0	0	0
Puducherry & Tamil Nadu	8	267	0	0
Punjab	214	78,853	538	275
Punjab & Rajasthan	12	0	0	0
Rajasthan	270	2,41,250	155	1,628
Tamil Nadu	253	14,402	4	13
Telangana	166	1,95,546	99	109
Telangana and Karnataka	4	0	0	0
Tripura	18	60,864	506	62
Uttar Pradesh	841	14,79,503	2,471	3,005
Uttar Pradesh	28	4,939	10	7
Uttar Pradesh & Rajasthan	42	19,442	45	348
Uttar Pradesh and Uttrakhand	26	13,604	0	0
Uttarakhand	33	71,513	83	92
West Bengal	77	3,623	3	1
Total	**6,159**	**1,20,43,666**	**39,902**	**17,830**

Source: PNGRB

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

23. Domestic natural gas price and gas price ceiling (GCV basis)

Period	Domestic Natural Gas price in	Gas price ceiling in US$/MMBTU
December 2014 - March 2015	5.05	-
April 2015 - September 2015	4.66	-
October 2015 - March 2016	3.82	-
April 2016 - September 2016	3.06	6.61
October 2016 - March 2017	2.5	5.3
April 2017 - September 2017	2.48	5.56
October 2017 - March 2018	2.89	6.3
April 2018 - September 2018	3.06	6.78
October 2018 - March 2019	3.36	7.67
April 2019 - September 2019	3.69	9.32
October 2019 - March 2020	3.23	8.43
April 2020 - September 2020	2.39	5.61
October 2020 - March 2021	1.79	4.06
April 2021 - September 2021	1.79	3.62
October 2021 - March 2022	2.9	6.13
April 2022 - September 2022	6.1	9.92
October 2022 - March 2023	8.57	12.46
1 April 2023 - 7 April 2023	9.16	12.12

Period	Domestic Gas calculated price in US$/MMBTU	Domestic Gas ceiling price for ONGC/OIL in US$/MMBTU	Period	HP-HT Gas price ceiling in US$/MMBTU
8 April 2023 - 30 April 2023	7.92	6.50	April 2023 - September 2023	12.12
1 May 2023 - 31May 2023	8.27	6.50		
1 June 2023 - 30 June 2023	7.58	6.50		
1 July 2023 - 31 July 2023	7.48	6.50		
1 Aug 2023 - 31 Aug 2023	7.85	6.50		
1 Sept 2023 - 30 Sept 2023	7.85	6.50		
1 Oct 2023 - 31 Oct 2023	9.20	6.50	October'2023 - March 2024	9.96
1 Dec 2023 - 30 Dec 2023	9.12	6.50		
1 Dec 2023 - 31 Dec 2023	8.47	6.50		
1 Jan 2024 - 31 Jan 2024	7.82	6.50		

Natural Gas prices are on GCV basis

24. CNG/PNG prices

City	CNG (Rs/Kg)	PNG (Rs/SCM)	Source
Delhi	76.59	48.59	IGL website (11.01.2024)
Mumbai	76.00	47.00	MGL website (11.01.2024)

Indian Natural Gas Spot Price for Physical Delivery

IGX Price Index Month	Avg. Price		Volume (MMSCM)	Source
	INR/MMBtu	$/MMBtu		
`Dec 2023	1098	13.20	93.90	As per IGX website: www.igxindia.com

*Prices are weighted average prices|$1=INR 83.28| 1 MMBtu=25.2 SCM (Data Excluding Ceiling Price Gas)

Jan 15, 2024 07:13:23

Russia Oil Processing Falls in January Amid Export Restrictions

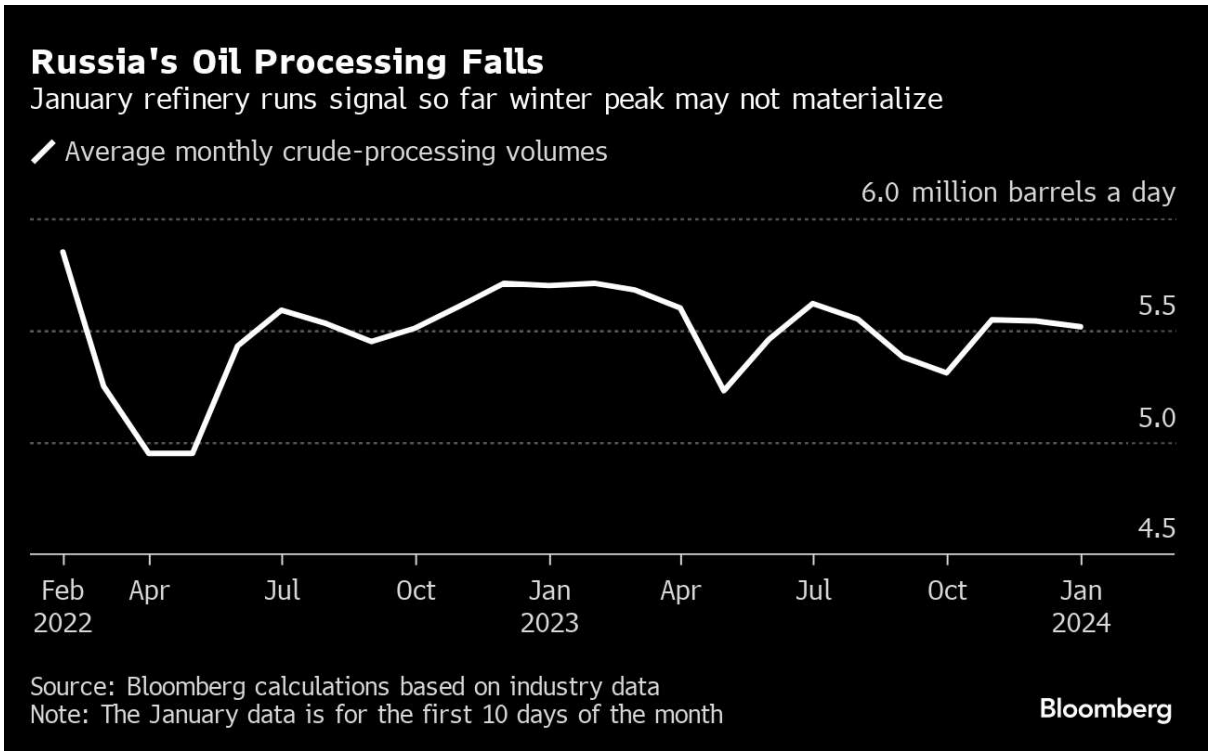
Plants refined 5.52 million barrels a day, down 0.5% from Dec.
Kpler outlook for Russia's January refinery runs at 5.54m b/d

By Bloomberg News

(Bloomberg) -- Russia's oil processing fell in the first ten days of 2024, signaling that the traditional winter refining peak might not materialize this year amid remaining restrictions on exports of some types of diesel.

The nation's facilities processed 5.52 million barrels of crude a day from Jan. 1 to Jan. 10, down almost 27,000 barrels a day — or 0.5% — from the average for most of December, according to a person with knowledge of industry data.

Lower refinery runs at Gazprom Neft PJSC's and Bashneft PJSC's facilities contributed to the overall decline, the person said. The halt of a unit at Lukoil's PJSC refinery in Nizhny Novgorod has had limited impact on the company's primary processing so far, according to the person.



Russia's oil-processing traditionally rises during winter thanks to a higher seasonal consumption of diesel and fuel oil. At the start of this year, however, restrictions on exports of winter-grade diesel may have been one of the reasons for the lower refinery runs, said Viktor Katona, lead crude analyst at intelligence firm Kpler, in a research note.

The country's refining rates are scrutinized by oil market watchers as one of the key remaining indicators — together with seaborne crude exports — to follow trends in the nation's output after the government classified official data in response to Western sanctions.

READ: Russia's Crude Exports Start 2024 in Line With Pledged OPEC+ Cut

Kpler has cut its outlook for Russia's average daily refinery runs in January to 5.54 million barrels from a previous estimate of 5.8 million barrels, according to Katona. As a result, Russian seaborne crude exports may jump to highest since May 2023, reaching some 3.66 million barrels a day in the first half of January, according to Kpler estimates.

Russia has pledged to reduce its combined crude-oil and petroleum-product exports by 500,000 barrels a day in the first quarter of 2024 compared to the average for May-June last year. The nation also plans to keep its crude production curbs through year-end at 500,000 barrels per day compared to the average for February 2023.

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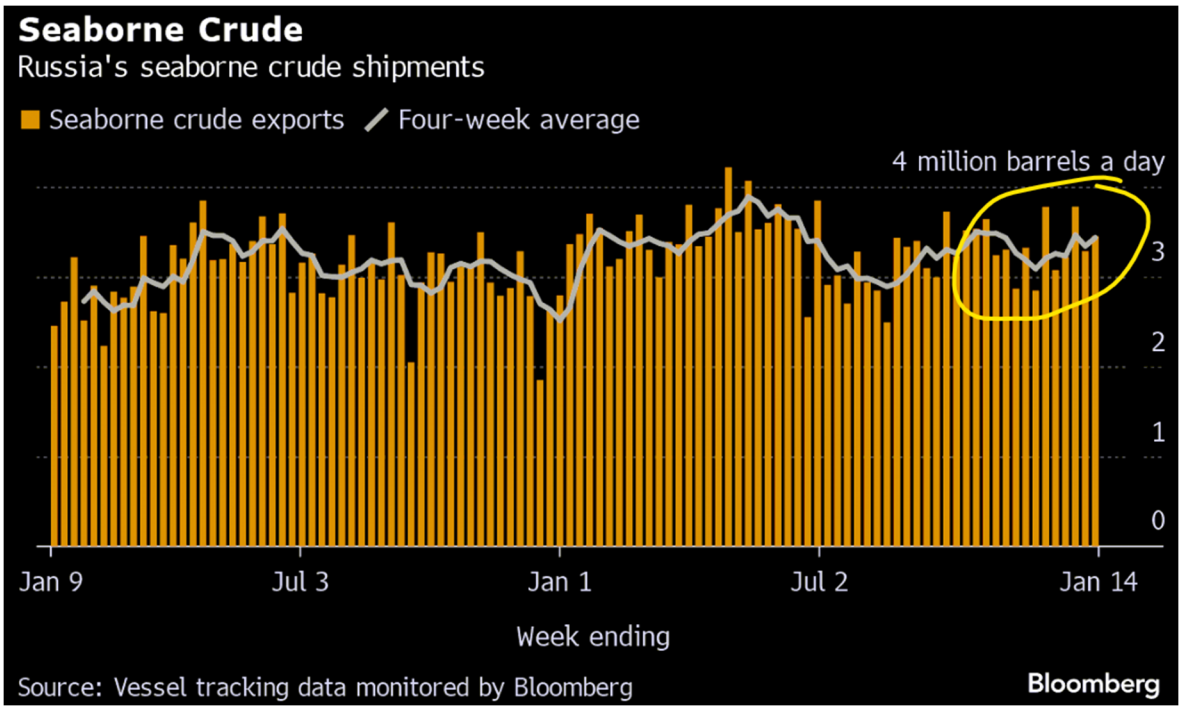
Russian Crude Flows Defy Red Sea Chaos to Exceed OPEC+ Target
2024-01-16 12:13:39.975 GMT

By Julian Lee
(Bloomberg) -- Russia's seaborne crude shipments shrugged off attacks on shipping in the southern Red Sea to register gains in the latest week, as Moscow failed to match export cuts that it pledged to its OPEC+ allies.
About 3.43 million barrels a day of crude were shipped from Russian ports in the four weeks to Jan. 14, tanker-tracking data monitored by Bloomberg show. That was up by 94,000 barrels a day from the period to Jan. 7.
The more volatile weekly average rose by 166,000 barrels a day to 3.45 million. While that was 134,000 barrels below the average export level seen by Bloomberg during the benchmark months of May and June, it was still less than half the cut Moscow pledged to its OPEC+ partners for the first quarter of 2024.



Russia has said it will deepen its oil export cuts to 500,000 barrels a day below the May-June average during the first quarter, 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. The four-week average crude measure was only about 150,000 barrels a day below the May-June level.
All Russian crude destined for Asian buyers after being loaded at western ports continues to pass through the Red Sea, despite attacks on merchant vessels from Yemen-based Houthi rebels. While tankers hauling Moscow's oil are thought unlikely

to be targeted deliberately, ships carrying Russian supplies are still at risk of being hit by mistake.

Indeed, the only oil tanker reported to have been struck off Yemen was carrying Russian crude. The Sai Baba, carrying a cargo of Russian Urals, was hit by a drone off Yemen on Dec. 23, according to a post by the US Central Command on X, formerly known as Twitter. On Friday, a Houthi missile landed 400 to 500 meters away from a vessel carrying Russian oil, which was also followed by three small boats, according to the British navy. The vessel was likely the Khalissa, carrying oil from the Russian port of Ust-Luga, according to Ambrey Analytics, which provides intelligence to merchant ships.

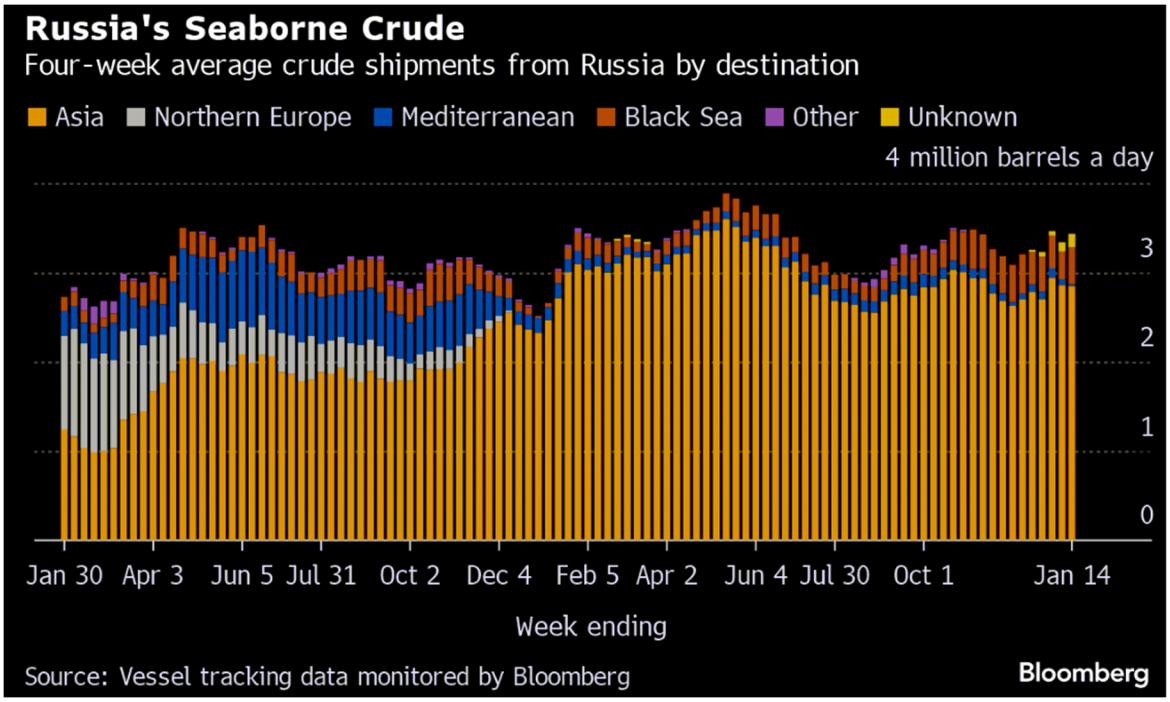
Russia still appears to be struggling to place cargoes of its Sokol crude. Sixteen cargoes, totaling more than 11 million barrels, are sitting on tankers that appear to be going nowhere. Six ships that were heading for the Indian ports of Paradip and Vadinar came to a halt in December before heading back through the Strait of Malacca. Three of those tankers signaled a new destination of Qingdao in China, but have stopped for a second time in the South China Sea.

Another 10 cargoes of Sokol have been loaded onto ships via ship-to-ship transfers off the South Korean port of Yeosu. They too are showing no sign of heading to their designated destinations.

The gross value of Russia's crude exports, calculated from weekly shipments and Argus Media pricing data, rose to $1.56 billion in the seven days to Jan. 14 from $1.45 billion the previous week. Four-week average income also was also up, increasing by $58 million to a seven-week high of $1.55 billion a week.

Flows by Destination

Russia's seaborne crude flows in the four weeks to Jan. 14 rose to 3.43 million barrels a day. That was up from 3.34 million barrels a day in the period to Jan. 7. Shipments were about 150,000 barrels a day below the average seen 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, edged higher to 3 million barrels a day in the four weeks to Jan. 14. That's the highest in two months.

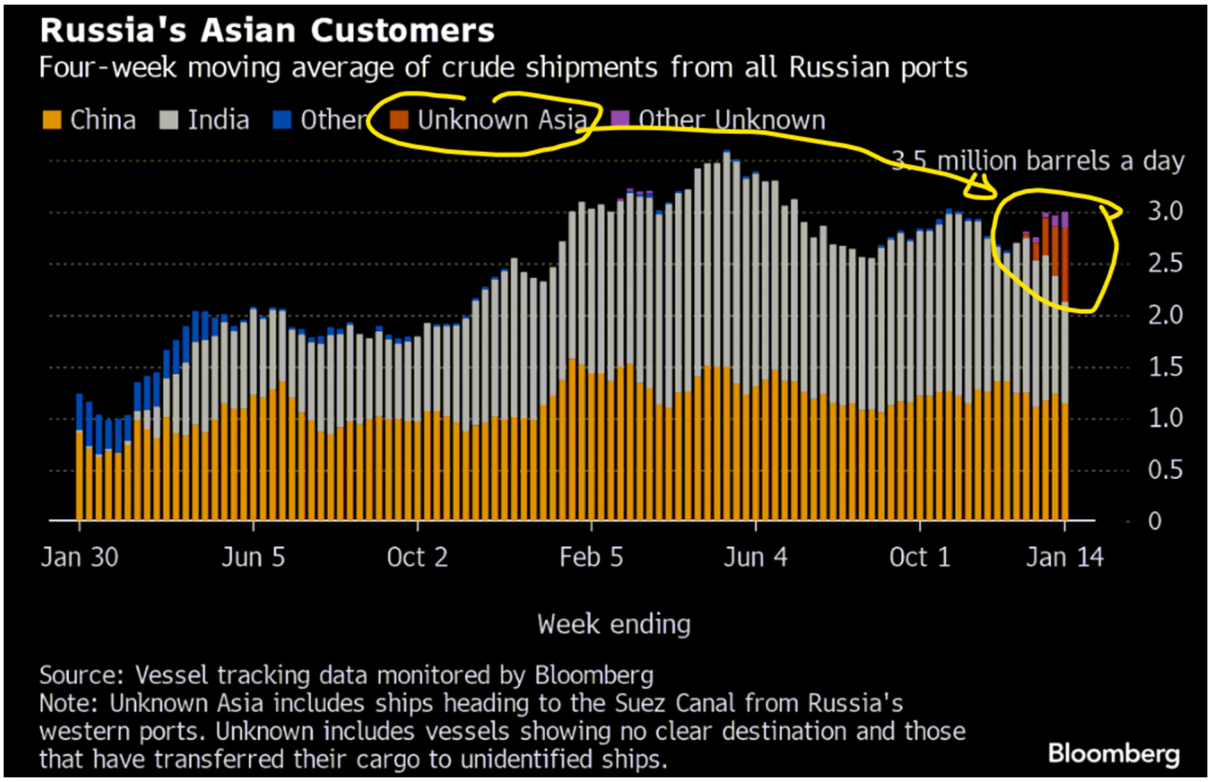
About 1.15 million barrels a day of crude was loaded onto tankers heading to China in the four weeks to Jan. 14. China's seaborne imports are supplemented by about 800,000 barrels a day of crude delivered directly from Russia by pipeline, either directly, or via Kazakhstan.

Flows on ships signaling destinations in India averaged about 980,000 barrels a day in the four weeks to Jan. 14.

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 720,000 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.

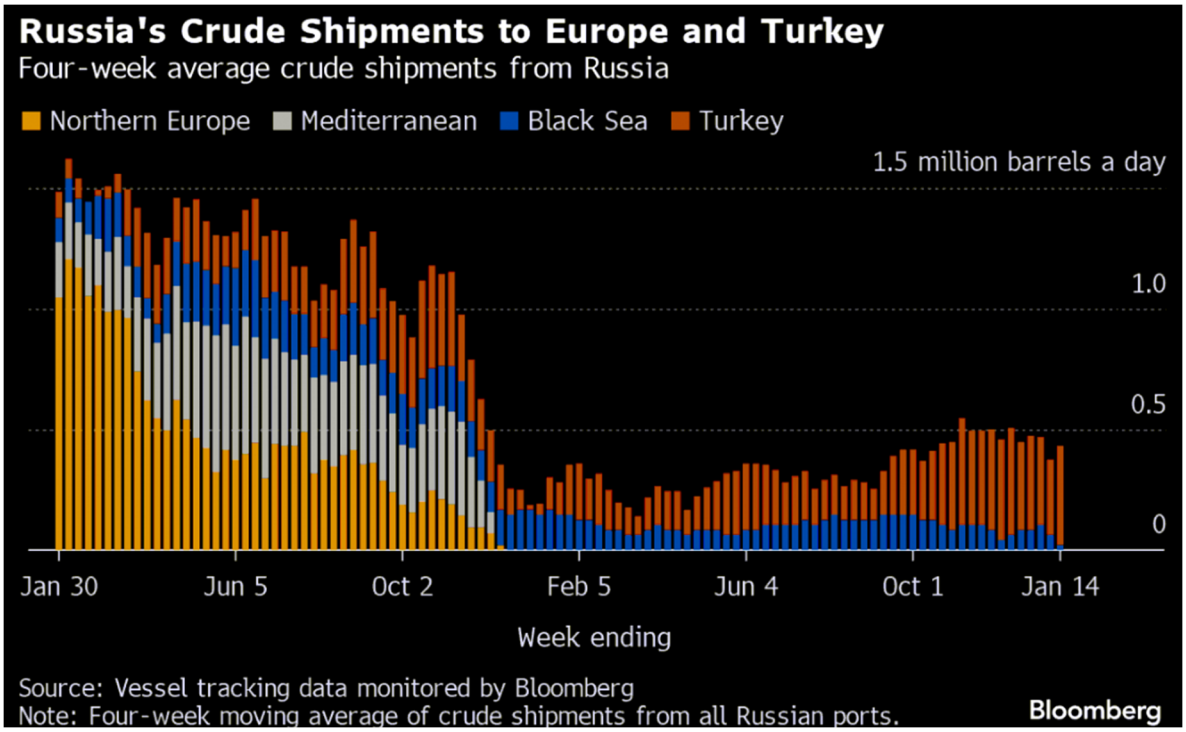
The “Other Unknown” volumes, running at about 150,000 barrels a day in the four weeks to Jan. 14, are those on tankers showing no clear destination. Most of those cargoes originate from Russia’s western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others could be moved 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, recovered to about 430,000 barrels a day in the four weeks to Jan. 14, tanker-tracking data show. That’s up from about 380,000 barrels a day in the period to Jan. 7.



Exports to Turkey rose to a five-week high of about 412,000 barrels a day in the four weeks to Jan. 14.

Flows to Bulgaria, now Russia's only European market for crude, slipped to a four-week low of about 21,000 barrels a day in the most recent four-week period. That's the lowest in data going back to the start of 2022. Bulgaria's parliament has 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. Storms at Novorossiysk continue to hamper shipments across the Black Sea.

No Russian crude was shipped to northern European countries, or those in the Mediterranean in the four weeks to Jan. 14.

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

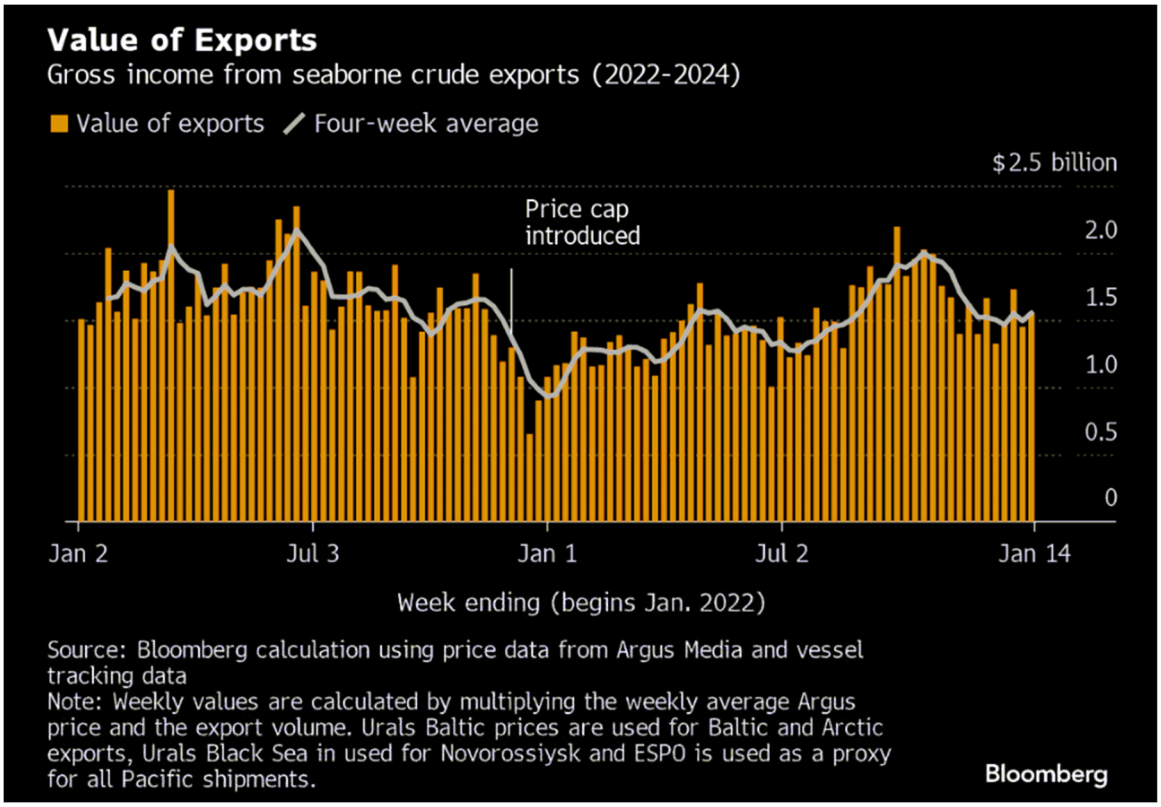
Export Value

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

The gross value of Russia's crude exports rose to $1.56 billion in the seven days to Jan. 14 from $1.45 billion the previous week. Meanwhile four-week average income also increased, up by $58 million to $1.55 billion a week, the highest in seven weeks. The four-week average peaked at $2.17 billion a week in the period to June 19, 2022. The highest it reached last year was $2 billion a week in the period to Oct. 22.

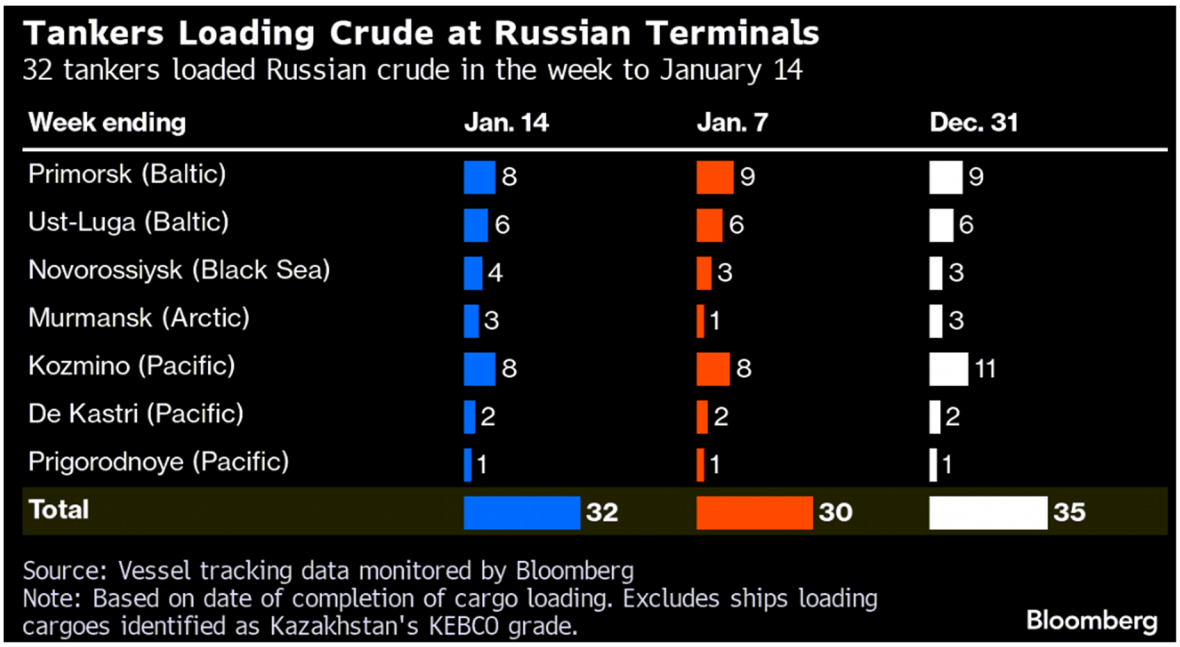
During the first four weeks after the Group of Seven nations' price cap on Russian crude exports came into effect in

early December 2022, the value of seaborne flows fell to a low of $930 million a week, but soon recovered.



The chart above shows a gross value of Russia's seaborne oil exports on a weekly and four-week average basis. The value is calculated by multiplying the average weekly crude price from Argus Media Group by the weekly export flow from each port. For shipments from the Baltic and Arctic ports we use the Urals FOB Primorsk dated, London close, midpoint price. For shipments from the Black Sea we use the Urals Med Aframax FOB Novorossiysk dated, London close, midpoint price. For Pacific shipments we use the ESPO blend FOB Kozmino prompt, Singapore close, midpoint price.
Export duty was abolished at the end of 2023 as part of Russia's long-running tax reform plans.

Ships Leaving Russian Ports
The following table shows the number of ships leaving each export terminal.
A total of 32 tankers loaded 24.1 million barrels of Russian crude in the week to Jan. 14, vessel-tracking data and port agent reports show. That was up by about 1.2 million barrels from the previous week.
Storms in the eastern Black Sea continue to disrupt shipments from Novorssiysk.



All figures exclude cargoes identified as Kazakhstan's KEBCO grade. One cargo of KEBCO was loaded 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 gross value of those flows. Weeks run from Monday to Sunday. The next update will be on Tuesday, Jan. 23.

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

If you are reading this story on the Bloomberg terminal, click here for a link to a PDF file of four-week average flows from Russia to key destinations.

--With assistance from Sherry Su.

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Oil Market Highlights

Crude Oil Price Movements

The OPEC Reference Basket (ORB) value fell by $5.92, or 7.0%, m-o-m in December, to average $79/b. The ICE Brent front-month contract dropped by $4.71, or 5.7%, m-o-m, to $77.32/b, and the NYMEX WTI front-month contract fell by $5.26, or 6.8%, to average $72.12/b. The DME Oman front-month contract dropped by $6.23, or 7.5%, m-o-m, to settle at $76.83/b. The front-month ICE Brent/NYMEX WTI spread widened again in December by 55¢ to average $5.20/b. The market structure continued to weaken in all markets as hedge funds and other money managers remained bearish, substantially reducing their long positions, which contributed to volatility in prices.

World Economy

Global economic growth forecast for 2024 remains at a healthy 2.6%, unchanged from the previous month's assessment. The economic growth in 2025 is expected to pick up slightly reaching 2.8%. This positive trajectory is in line with the expectation that general inflation will continue to diminish throughout 2024 and into 2025, particularly in major economies. A shift towards increasingly accommodative monetary policies is anticipated for 2H24 and throughout 2025, with key policy rates expected to peak in 1H24. US economic growth forecast for 2024 remains unchanged at 1%, followed by 1.5% for 2025. Economic growth forecast in the Eurozone remains at 0.5% for 2024, before rising to 1.2% in 2025. Japan's economic growth forecast for 2024 remains at 0.9%, while growth in 2025 is forecast to pick up slightly to 1%. China's economic growth forecast for 2024 remains at 4.8%, with economic growth forecast for 2025 at 4.6%. India's economic growth forecast remains at 5.9% for 2024, expanding further to 6.1% in 2025. Brazil's economic growth forecast for 2024 is revised up to 1.4% and then rises to 1.9% in 2025. Russia's economic growth forecast in 2024 is revised up to 1.4% and is expected to grow by 1.2% in 2025.

World Oil Demand

The global oil demand growth forecast for 2024 remains unchanged at 2.2 mb/d, with the OECD growing by around 0.3 mb/d and the non-OECD by about 2.0 mb/d. The global oil demand growth in 2025 is expected to see a robust growth of 1.8 mb/d, y-o-y. The OECD is expected to grow by 0.1 mb/d, y-o-y, while demand in the non-OECD is forecast to increase by 1.7 mb/d.

World Oil Supply

The non-OPEC liquids production in 2024 is expected to grow by 1.3 mb/d, slightly revised down from the previous month's assessment. The main drivers for liquids supply growth in 2024 are expected to be the US, Canada, Guyana, Brazil, Norway and Kazakhstan. The non-OPEC liquids supply growth in 2025 is expected to stand at 1.3 mb/d, mainly driven by the US, Brazil, Canada, Norway, Kazakhstan and Guyana. OPEC natural gas liquids (NGLs) and non-conventional liquids are forecast to grow by around 64 tb/d to average 5.5 mb/d, followed by growth of 110 tb/d in 2025 to average 5.6 mb/d. OPEC-12 crude oil production in December 2023 increased by 73 tb/d, m-o-m, to average 26.70 mb/d, according to available secondary sources.

Product Markets and Refining Operations

In December 2023, refinery margins declined in the Atlantic Basin, weighed down by higher refinery product output levels and rising product availability, in line with seasonal trends. Despite some support observed over the year-end holidays, the gasoline in the US Gulf Coast (USGC) and Rotterdam was relatively weak, and the positive performance in naphtha and high sulphur fuel oil proved insufficient to avert heavy supply-side pressures associated with jet/kerosene and gasoil. In Singapore, margins rose driven by robust naphtha performance and additional support across the entire barrel. Global refinery intake extended its recovery momentum from the previous month, registering a rise of 1.5 mb/d m-o-m in December, and averaged 82.3 mb/d compared to 80.8 mb/d in the previous month. In the coming months, refinery intakes are expected to remain steady.

Tanker Market

Dirty spot freight rates experienced a seasonal dip in December, despite increased uncertainties along key routes which were seen adding upward pressure on rates. For the year, spot freight rates in 2023 declined from the elevated levels seen in 2022. Very large crude carriers (VLCCs) rates were less directly impacted by trade dislocations seen in 2022 and thus experienced a less pronounced decline, falling 7% on the Middle East-to-East route in 2023. Suezmax averaged 17% lower on the USGC-to-Europe route. Aframax saw the largest decline, giving up about one-third of the previous year's gains. Rates on the Intra-Med route fell by about 32% in 2023, after more than doubling in 2022. Clean tanker spot freight rates experienced similar volatility, with rates on the Middle East-to-East route declining 30% in 2023, following an increase of 123% in the previous year. The increased tanker demand and longer distances travelled were insufficient to fully outweigh the market's adjusting to trade dislocations seen in 2022.

Crude and Refined Products Trade

Preliminary data for the final month of the year points to 2023 being a robust year for crude and product trade flows. US crude imports in 2023 averaged 6.5 mb/d, the highest since 2019, while US crude exports averaged just under 4.1 mb/d, a new record high. China's crude and petroleum product imports are likely to have set new record highs in 2023. China's crude imports averaged 11.3 mb/d in 2023, surpassing the previous record of 10.9 mb/d in 2020. China's product imports are on track to average above 2 mb/d once final December data is available, compared to the previous record of 1.5 mb/d set in 2022. India's crude imports are also likely to see a record high in 2023, averaging close to 4.7 mb/d compared to the previous record of 4.6 mb/d in 2022. India's product imports are on course to achieve a record level above 1.1 mb/d I 2023, compared to a previous high of just under 1.06 mb/d set in 2022. Product exports from India are broadly in line with the previous year, averaging around 1.3 mb/d. In contrast, Japan had a more muted performance in 2023, compared to more robust flows in recent years. Preliminary estimates for OECD Europe crude imports point to flows in 2023, remaining largely in line with the previous year's levels.

Commercial Stock Movements

Preliminary data for November 2023 shows total OECD commercial oil stocks down by 7.3 mb, m-o-m. At 2,819 mb, they were 122 mb below the 2015–2019 average. Within the components, crude stocks rose by 17.5 mb, m-o-m, while products stocks fell by 10.2 mb, m-o-m. OECD commercial crude stocks stood at 1,354 mb in November, 97 mb lower than the 2015–2019 average. Total product stocks stood at 1,466 mb, which was 25 mb below the 2015–2019 average. In terms of days of forward cover, OECD commercial stocks rose by 0.1 days, m-o-m, in November, standing at 61.5 days. This was 0.7 days less than the 2015–2019 average.

Balance of Supply and Demand

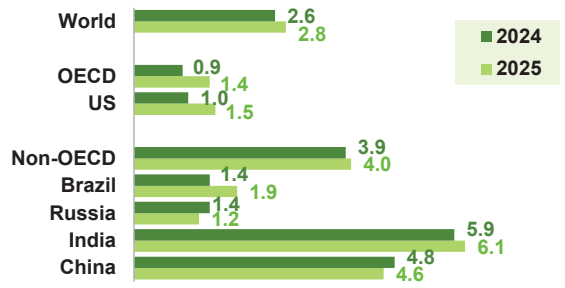
Demand for OPEC crude in 2024 stands at 28.5 mb/d, which is 0.8 mb/d higher than the estimated level in 2023. Based on the initial world oil demand and non-OPEC supply forecast for 2025, demand for OPEC crude is expected to reach 29.0 mb/d, 0.5 mb/d higher than the forecasted 2024 level.

Feature Article

Oil market outlook for 2025

World economic growth in 2025 is forecast at 2.8%, which points to an improving trend compared to this year's expected level of 2.6%. Supporting this is an anticipated recovery in OECD economies from low growth in 2024. Non-OECD economies – including the key oil-consuming economies of China and India, along with other Asian developing economies – are set to continue their healthy growth levels and be responsible for a large part of next year's global economic growth. This development is under the assumption that general inflation will continue retracting in 2024 and beyond. Hence, increasingly accommodative monetary policies are expected for 2H24 and 2025, assuming that key policy rates peak in 1H24. Although the output dynamic and growth contribution for the industrial sector in major OECD economies in 2023 was bearish, the dynamic is forecast to improve over the course of 2024 and 2025. While the services sector has been the main global economic growth driver for 2023, a normalization of the sector's growth dynamic is expected in 2024 and 2025.

Graph 1: GDP growth forecast, y-o-y changes, %

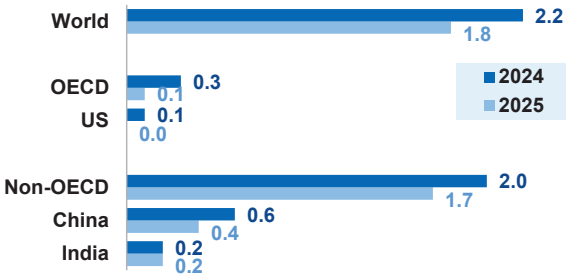


Source: OPEC.

With this, **global oil demand** in 2025 is set to grow by a robust 1.8 mb/d, y-o-y, sustained by continued solid economic activity in China, and expected firm growth in other non-OECD countries. On a regional basis, OECD oil demand is forecast to expand by 0.1 mb/d, y-o-y, while non-OECD oil demand is expected to show a considerable growth of nearly 1.7 mb/d, mostly in China, the Middle East, and Other Asia, including India.

In terms of oil products, transportation fuels are set to drive oil demand growth in 2025, with air travel expected to see further expansion, as both international and domestic traffic increase. Gasoline requirements will continue to see support from steadily rising road mobility in major consuming countries, such as China, the Middle East, India and the US. Both on-road diesel, including trucking, as well as healthy industrial, construction and agricultural activities in non-OECD countries are expected to support diesel demand. Light distillates are projected to be supported by capacity additions, and petrochemical margins, mostly in China and the Middle East.

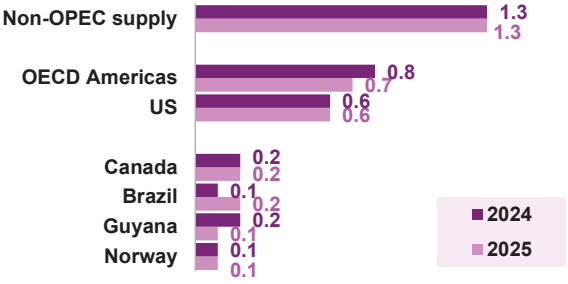
Graph 2: World oil demand growth forecast, y-o-y changes, mb/d



Source: OPEC.

Non-OPEC oil supply in 2025 is forecast to grow by 1.3 mb/d, y-o-y, supported by expected healthy demand and upstream investment. Oil and gas upstream CAPEX investment in non-OPEC countries is expected at around $473 billion. This is slightly lower than anticipated spending in 2024. Growth in 2025 is primarily set to come from OECD Americas, with US liquids production forecast to expand by 0.6 mb/d, mainly from Permian crude, non-conventional NGLs and the Gulf of Mexico. Other main growth drivers are forecast to be Brazil, Canada, Norway, Kazakhstan and Guyana, with new field start-ups, ramp-ups or the optimization of existing projects.

Graph 3: Non-OPEC supply growth forecast, y-o-y changes, mb/d



Source: OPEC.

Bringing forward the publication of the 2025 forecast to the January 2024 MOMR issue is part of the continued commitment of the OPEC organization to offer more transparency and support for both consumers and producers. The undertaking to reach beyond the previously established time horizon of short-term forecasting serves to support the understanding of market dynamics and to support the continued commitment of the OPEC and non-OPEC Participating Countries in the Declaration of Cooperation (DoC) to achieve and sustain a stable oil market, and to provide long-term guidance for the market, and in line with the successful approach of being precautious, proactive, and pre-emptive, which has been consistently adopted by OPEC and non-OPEC Participating Countries in the DoC.

World Oil Demand

The forecast for 2023 world oil demand growth remains unchanged from the previous assessment at 2.5 mb/d. Minor data revisions are made in 1Q23 to 3Q23 for OECD and China to accommodate for the latest received data. Also, the demand forecast for OECD Americas in 4Q23 is adjusted upward, reflecting better-than-expected improvements in oil demand. Similarly, the demand forecast for China and the Middle East is adjusted slightly upwards, following data showing improvements in oil demand.

The global oil demand growth forecast for 2024 remains unchanged at 2.2 mb/d, with the OECD growing by around 0.3 mb/d and the non-OECD by about 2.0 mb/d. In 1Q24, oil demand is expected to grow by 2.0 mb/d y-o-y. Total world oil demand is anticipated to reach 104.4 mb/d in 2024, bolstered by strong air travel demand and healthy road mobility, including on-road diesel and trucking, as well as healthy industrial, construction and agricultural activities in non-OECD countries. Similarly, capacity additions and petrochemical margins in non-OECD countries – mostly in China and the Middle East – are expected to contribute to oil demand growth. However, this forecast is subject to many uncertainties, including global economic developments.

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

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

							Change 2023/22	
World oil demand	**2022**	**1Q23**	**2Q23**	**3Q23**	**4Q23**	**2023**	**Growth**	**%**
Americas	24.79	24.46	25.18	25.36	24.94	24.99	0.19	0.77
of which US	*20.16*	*19.92*	*20.50*	*20.49*	*20.15*	*20.27*	*0.11*	*0.52*
Europe	13.51	13.10	13.54	13.62	13.39	13.42	-0.09	-0.69
Asia Pacific	7.38	7.81	6.96	7.06	7.65	7.37	-0.01	-0.17
Total OECD	**45.68**	**45.37**	**45.68**	**46.03**	**45.98**	**45.77**	**0.09**	**0.19**
China	14.95	15.51	16.26	16.42	16.42	16.15	1.20	8.05
India	5.14	5.40	5.40	5.17	5.40	5.34	0.21	3.99
Other Asia	9.07	9.34	9.49	9.13	9.15	9.28	0.20	2.26
Latin America	6.44	6.60	6.70	6.75	6.68	6.68	0.25	3.83
Middle East	8.30	8.63	8.32	8.82	8.76	8.63	0.33	3.99
Africa	4.40	4.59	4.24	4.27	4.74	4.46	0.06	1.34
Russia	3.75	3.83	3.69	3.84	4.01	3.84	0.09	2.37
Other Eurasia	1.15	1.24	1.21	1.02	1.23	1.17	0.02	2.03
Other Europe	0.77	0.79	0.77	0.75	0.83	0.79	0.01	1.29
Total Non-OECD	**53.98**	**55.93**	**56.07**	**56.18**	**57.20**	**56.35**	**2.37**	**4.39**
Total World	**99.66**	**101.30**	**101.75**	**102.21**	**103.18**	**102.11**	**2.46**	**2.47**
Previous Estimate	99.66	101.57	101.47	102.12	103.28	102.11	2.46	2.47
Revision	0.00	-0.27	0.28	0.09	-0.09	0.00	0.00	0.00

*Note: * 2023 = Estimate.*

Totals may not add up due to independent rounding.

Source: OPEC.

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

World oil demand	2023	1Q24	2Q24	3Q24	4Q24	2024	Change 2024/23 Growth	Change 2024/23 %
Americas	24.99	24.65	25.35	25.56	25.09	25.17	0.18	0.72
of which US	*20.27*	*20.06*	*20.64*	*20.64*	*20.29*	*20.41*	*0.14*	*0.70*
Europe	13.42	13.16	13.60	13.69	13.43	13.47	0.06	0.41
Asia Pacific	7.37	7.84	6.97	7.09	7.65	7.39	0.02	0.29
Total OECD	**45.77**	**45.64**	**45.93**	**46.34**	**46.17**	**46.02**	**0.26**	**0.56**
China	16.15	16.13	16.77	17.09	17.14	16.78	0.63	3.90
India	5.34	5.63	5.64	5.40	5.59	5.56	0.22	4.11
Other Asia	9.28	9.61	9.74	9.49	9.51	9.59	0.31	3.34
Latin America	6.68	6.79	6.88	6.97	6.84	6.87	0.19	2.84
Middle East	8.63	8.91	8.76	9.38	9.00	9.01	0.38	4.40
Africa	4.46	4.65	4.37	4.39	4.82	4.56	0.10	2.24
Russia	3.84	3.89	3.80	3.99	4.08	3.94	0.10	2.61
Other Eurasia	1.17	1.27	1.24	1.08	1.28	1.22	0.04	3.77
Other Europe	0.79	0.81	0.78	0.77	0.84	0.80	0.01	1.75
Total Non-OECD	**56.35**	**57.68**	**57.99**	**58.55**	**59.11**	**58.34**	**1.99**	**3.53**
Total World	**102.11**	**103.32**	**103.92**	**104.89**	**105.29**	**104.36**	**2.25**	**2.20**
Previous Estimate	102.11	103.60	103.64	104.80	105.38	104.36	2.25	2.20
Revision	0.00	-0.27	0.28	0.09	-0.09	0.00	0.00	0.00

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

Table 4 - 3: World oil demand in 2025*, mb/d

World oil demand	2024	1Q25	2Q25	3Q25	4Q25	2025	Change 2025/24 Growth	Change 2025/24 %
Americas	25.17	24.71	25.40	25.68	25.17	25.24	0.08	0.31
of which US	*20.41*	*20.09*	*20.67*	*20.70*	*20.34*	*20.45*	*0.04*	*0.21*
Europe	13.47	13.18	13.61	13.71	13.44	13.49	0.02	0.12
Asia Pacific	7.39	7.85	6.98	7.10	7.66	7.40	0.01	0.14
Total OECD	**46.02**	**45.73**	**46.00**	**46.50**	**46.28**	**46.13**	**0.11**	**0.23**
China	16.78	16.56	17.15	17.53	17.53	17.19	0.41	2.45
India	5.56	5.85	5.88	5.61	5.82	5.79	0.23	4.10
Other Asia	9.59	9.90	10.07	9.82	9.81	9.90	0.31	3.25
Latin America	6.87	6.99	7.07	7.19	7.04	7.07	0.20	2.91
Middle East	9.01	9.29	9.10	9.84	9.35	9.40	0.38	4.24
Africa	4.56	4.77	4.47	4.52	4.93	4.67	0.11	2.47
Russia	3.94	3.95	3.85	4.05	4.12	3.99	0.05	1.37
Other Eurasia	1.22	1.30	1.27	1.12	1.31	1.25	0.03	2.59
Other Europe	0.80	0.82	0.79	0.78	0.85	0.81	0.01	1.41
Total Non-OECD	**58.34**	**59.42**	**59.66**	**60.45**	**60.76**	**60.08**	**1.74**	**2.98**
Total World	**104.36**	**105.15**	**105.65**	**106.95**	**107.05**	**106.21**	**1.85**	**1.77**

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

OECD

OECD Americas

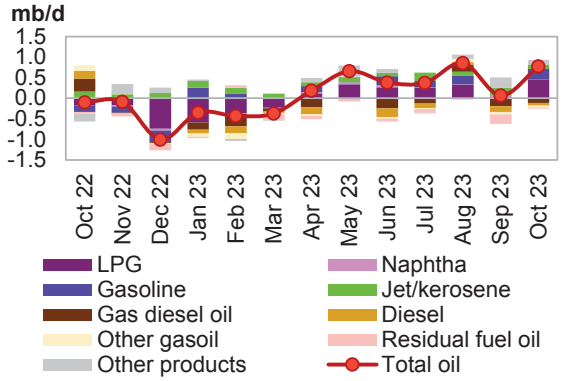
Update on the latest developments

Oil demand in OECD Americas surged further by 775 tb/d, y-o-y, in October. Incremental demand over the month came almost entirely from the US, with Canada and Mexico increasing only marginally. The increase was supported by a negative baseline amid strong petrochemical feedstock requirements and healthy transportation fuel demand.

Details of various product contributions show that LPG led demand growth in the region, with 455 tb/d, y-o-y, a 12% annual increase. Gasoline expanded on the back of healthy transportation activity by 255 tb/d, y-o-y, up from a 12 tb/d annual increase the previous month.

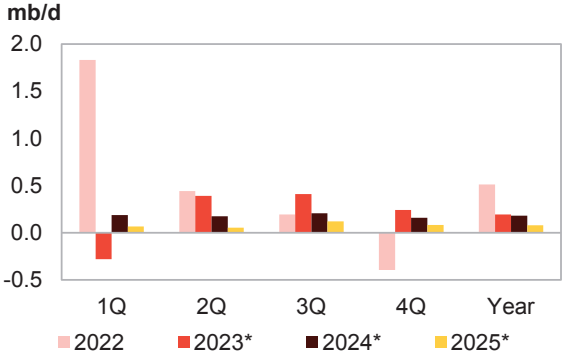
Similarly, the jet kerosene and the 'other products' categories increased y-o-y by 108 tb/d each. However, diesel and residual fuels declined for the second consecutive month, by 122 tb/d and 29 tb/d, respectively.

Graph 4 - 1: OECD Americas' oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, OPEC and national sources.

Graph 4 - 2: OECD Americas' oil demand, y-o-y change



*Note: * 2023 = Estimate and 2024-2025 = Forecast.*
Source: OPEC.

Oil demand in the **US** surged by 673 tb/d y-o-y in October from y-o-y decline of 37 tb/d in the previous month. Oil demand growth was supported by healthy petrochemical and transportation sector activity amid a weak baseline effect.

LGP recorded the largest increase of 318 tb/d y-o-y, up from the marginal increase of 12 tb/d seen the previous month. The product was affected by seasonality factors amid a low baseline effect. Gasoline surged by 287 tb/d, y-o-y, on the back of healthy vehicle mobility, up from an annual decline of 15 tb/d. This was supported by steady motor vehicle travel, with data from the Federal Highway Administration showing that miles travelled on all roads increased by 1.3%, y-o-y, in October. Seasonally adjusted vehicle miles travelled for October 2023 were reported at 269.5 billion miles, an increase of 0.8% (+2.0 billion vehicle miles) change over October 2022. Similarly, as air travel activity remained robust, jet/ kerosene demand increased by 134 tb/d, y-o-y, representing a 9% annual rise, according to a report from the International Air Travel Association (IATA). US international traffic levels remained robust in October, outperforming 2019 levels by 5.2%, and domestic revenue passenger kilometres (RPKs) stood 7.2% above pre-COVID levels. While the 'other products' category increased by 37 tb/d, y-o-y, demand for naphtha remained broadly unchanged.

However, diesel and residual fuels were subdued by weak industrial activity. Data from the Federal Reserve Board/Haver Analytics shows that industrial production declined by 12.73% in October, though this is an improvement from an annual decline of 19.77% in the previous month. Accordingly, diesel and residual fuels demand softened by 112 tb/d and 29 tb/d, y-o-y, respectively.

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

			Change	*Oct 23/Oct 22*
By product	**Oct 22**	**Oct 23**	**Growth**	**%**
LPG	3.23	3.54	0.32	9.9
Naphtha	0.12	0.12	0.00	3.4
Gasoline	8.81	9.09	0.29	3.3
Jet/kerosene	1.56	1.69	0.13	8.6
Diesel	4.16	4.07	-0.10	-2.3
Fuel oil	0.28	0.27	-0.01	-4.0
Other products	2.15	2.19	0.04	1.7
Total	**20.30**	**20.97**	**0.67**	**3.3**

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

Sources: EIA and OPEC.

Near-term expectations

In **2024**, US economic growth is projected to see a positive trajectory, albeit below 2023 figures. Economic activity in the US is expected to be supported by private household consumption. In addition, further improvements in air travel and road mobility are expected to support jet/kerosene and gasoline demand. Furthermore, LPG is also expected to see an uptick due to healthy petrochemical feedstock requirements for ethylene.

However, the US manufacturing sector continued to contract, although at a slightly slower rate, which is expected to dampen diesel demand. Nevertheless, overall oil demand is projected to increase by an average of about 140 tb/d y-o-y in 1H24, mostly supported by demand for jet/kerosene and LPG. Moreover, anticipation that the US Federal Reserve will hold off on interest rate changes will encourage more companies to spend on capital investment once again and is expected to support oil demand. Overall, US oil demand in 2024 is expected to increase by 143 tb/d, mostly supported by transportation fuels and light distillates.

In **2025**, US economic growth is projected to improve over 2024. Transportation activity is also expected to be solid and support transportation fuel demand. Further, healthy demand for LPG from petrochemical requirements is forecast to continue. However, weakening demand for diesel and naphtha in 2024 is not projected to improve. Overall, 2025 oil demand in the US is projected to increase by 42 tb/d, y-o-y.

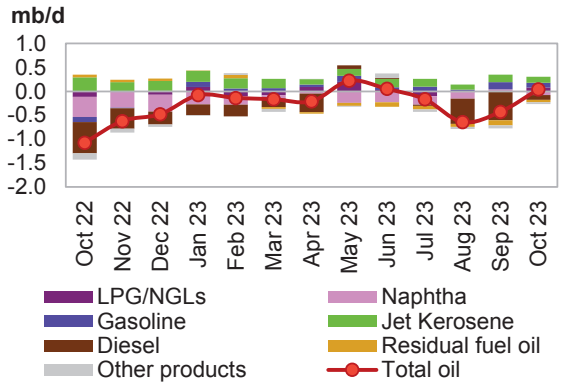
OECD Europe

Update on the latest developments

Oil demand in OECD Europe recorded a slight increase in October of 42 tb/d, y-o-y, after seeing three consecutive months of decline. Demand mostly originated from transportation fuels, supported by steady air travel recovery and healthy driving activity.

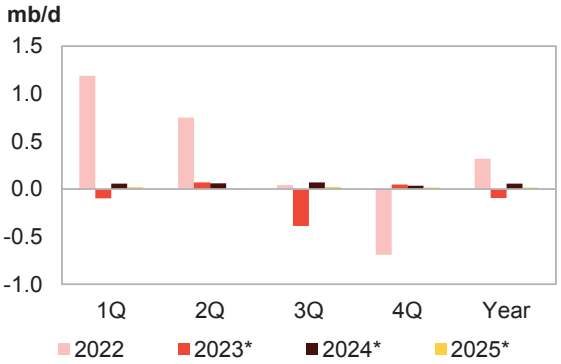
Jet/kerosene posted the largest increase of 127 tb/d, y-o-y, supported by solid demand for air travel in the region. A report from IATA Air Passenger Market Analysis states that in October air passenger traffic continued its upward trend with a 16.1% y-o-y increase, measured in international Revenue Passenger Kilometres (RPKs), which were 3.5% away from recovering to pre-COVID levels. Gasoline surged by 97 tb/d, y-o-y, on the back of healthy mobility, in line with winter seasonal norms. Meanwhile, LPG saw growth of 82 tb/d, y-o-y, up from no annual increase the previous month.

Graph 4 - 3: OECD Europe's oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, OPEC and national sources.

Graph 4 - 4: OECD Europe's oil demand, y-o-y change



*Note: * 2023 = Estimate and 2024-2025 = Forecast.*
Source: OPEC.

However, ongoing weakening in regional manufacturing activity weighed on diesel demand, leading to a decline of 101 tb/d y-o-y, though this is an improvement over the y-o-y annual decline of 605 tb/d seen in September. Diesel demand's prolonged decline was caused by persistent weak manufacturing activity amid macroeconomic headwinds in the big countries of the region. Similarly, a prolonged deceleration in petrochemical activity saw run rates plunge at petrochemical steam cracker units that convert naphtha and other feedstock into the industry's basic chemical building blocks. This weighed on naphtha demand, which declined by 74 tb/d, y-o-y, down from growth of 40 tb/d seen in September. Furthermore, demand for the 'other product' category and residual fuels softened by 34 tb/d and 55 tb/d, respectively, y-o-y.

Near-term expectations

Looking ahead to **2024**, the region's economy is expected to show a gradual recovery, as key headwinds due to high inflation and rising interest rates in 2023 fade. Furthermore, real household income is notably rising as headline inflation falls and nominal wages remain firm, providing support for households. These factors are expected to support oil demand growth of an average of 58 tb/d, y-o-y, in 1H24. This will additionally be supported by regional jet/kerosene and gasoline consumption on the back of air and road transportation activity. However, ongoing weak manufacturing and petrochemical activity are anticipated to weigh on diesel and naphtha. The region is expected to see an average growth of 55 tb/d, y-o-y, for the year, mostly supported by transportation fuels. Similarly, LPG and residual fuels are expected to record an uptick. However, diesel and naphtha are predicted to remain soft for the whole year, subdued by weakening manufacturing and petrochemical activity.

Economic activity in **2025** in the region is expected to improve further from 2024. Similarly, air travel and driving activity are expected to remain stable. These factors are expected to support oil demand to grow by 17 tb/d, y-o-y. However, an increase in the penetration of electrical vehicles is expected to subdue gasoline demand. Similarly, the European naphtha market is poised for major changes in fundamentals, mostly due to high production costs and environmental regulations that could weigh on demand.

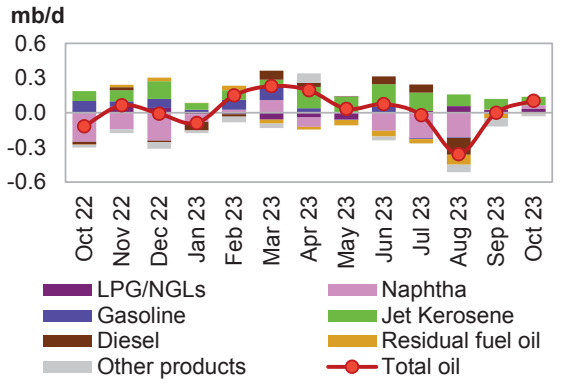
OECD Asia Pacific

Update on the latest developments

Oil demand in OECD Asia Pacific recovered by 105 tb/d, y-o-y, in October from zero growth seen in September. The demand recovery was supported by requirements for jet/kerosene and LPG amid healthy air travel recovery and healthy petrochemical feedstock requirements.

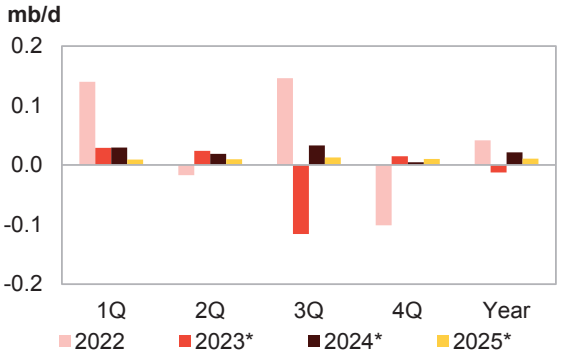
Jet/kerosene led oil demand growth in October by 71 tb/d, y-o-y, strong across all three major consuming countries in the region. A report from the IATA's Air Passenger Market Analysis shows that in October the Asia Pacific region witnessed ongoing growth in passenger traffic as international RPKs in the region made modest progress of 0.6% from September to October 2023, but still stood 19.5% away from total recovery. After prolonged dismal performance, petrochemical feedstock demand in the region has shown signs of recovery, with LPG expanding by 36 tb/d, y-o-y, while naphtha inched up by 30 tb/d.

Graph 4 - 5: OECD Asia Pacific oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, METI and OPEC.

Graph 4 - 6: OECD Asia Pacific oil demand, y-o-y change



*Note: * 2023 = Estimate and 2024-2025 = Forecast.*
Source: OPEC.

However, gasoline demand in the region was flat y-o-y, albeit an improvement from the slight 7 tb/d, y-o-y, decline the previous month. The sharp decline in gasoline demand in Japan, was offset by increases in South Korea and Australia of 12 tb/d and 4 tb/d, y-o-y, respectively. Finally, the 'other products' category and residual fuels saw annual declines of 25 tb/d and 4 tb/d, respectively.

Near-term expectations

Looking ahead to **1H24**, the region's economy is expected to grow modestly, though still below 2023 growth figures, with variations among countries. Forward-looking indicators – including services and manufacturing PMIs – also vary among major oil-consuming countries in the region. Steady air traffic recovery, along with healthy driving activity and petrochemical industry operations, are anticipated to support modest oil demand growth of 24 tb/d y-o-y on average in 1H24.

Moreover, extended government energy subsidies in Japan are expected to support oil demand. Overall, demand is projected to expand modestly by an average of 22 tb/d, y-o-y.

In **2025**, the momentum of economic activity in the region is expected to improve over 2024. Healthy air travel dynamic and recovering petrochemical sector requirements are expected to bolster oil demand growth. As a result, demand in OECD Asia Pacific is expected to expand modestly by an average of 11 tb/d, y-o-y, in 2025.

Non-OECD

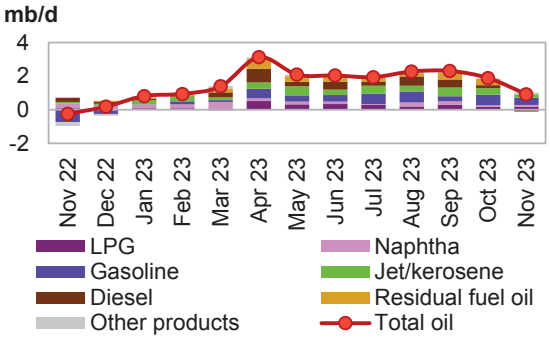
China

Update on the latest developments

Oil demand in China remained firm in November with growth of 0.9 mb/d, y-o-y. Incremental demand was almost the same as in the previous month. Growth was partly supported by a negative baseline effect amid healthy economic activity and steady petrochemical feedstock requirements.

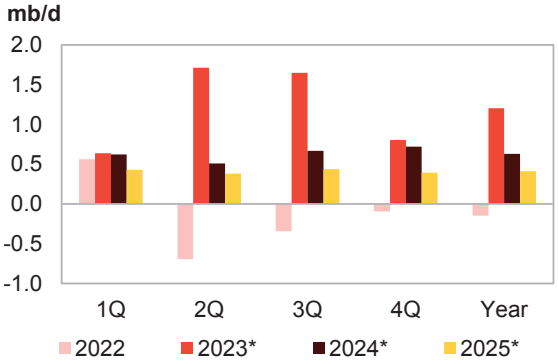
Gasoline demand recorded the highest growth among oil products on the back of healthy transportation activity and a low baseline effect, up by 435 tb/d, y-o-y, in November. This was supported by healthy transportation activity during the month. A report from the China National Bureau of Statistics/Haver Analytics indicates that road and passenger traffic growth in terms of 100-million-person kilometres increased by 27% y-o-y in November. Similarly, according to the China Association of Automobile Manufacturers (CAAM), Chinese vehicle sales increased by 2%, m-o-m, in November. Meanwhile, diesel demand declined by 98 tb/d from growth of 186 tb/d, y-o-y, seen in October, despite healthy manufacturing activity in China. According to a report by the China Federation of Logistics & Purchasing/Haver Analytics, manufacturing output was in expansion trajectory with 50.7 points. Residual fuel demand grew by 16 tb/d, y-o-y, below October's growth of 370 tb/d. In terms of petrochemical feedstock, LPG expanded by 189 tb/d, slighty up from growth of 183 tb/d y-o-y seen the previous month, and naphtha increased by 97 tb/d, y-o-y, up from growth of 88 tb/d, y-o-y, the month before.

Graph 4 - 7: China's oil demand by main petroleum product category, y-o-y change



Sources: Chinese Petroleum Data Monthly, Chinese National Bureau of Statistics, JODI, Non-OECD Energy Statistics, Argus Global Markets, Argus China, and OPEC.

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



*Note: * 2023 = Estimate and 2024-2025 = Forecast.*
Source: OPEC.

Furthermore, air travel activity also remained healthy. According to a report by China's Civil Aviation Authority, passenger volumes on domestic routes jumped by 289.8% y-o-y in November, while international routes recorded a 133.5% increase. The significant rise in air traffic supported growth in jet/kerosene demand, which showed annual growth of 88 tb/d, or about 12%. Finally, the ´other products´ category increased by 78 tb/d, y-o-y, up from annual growth of 39 tb/d recorded in October.

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

By product	Nov 22	Nov 23	Change Growth	Nov 23/Nov 22 %
LPG	2.58	2.77	0.19	7.3
Naphtha	2.01	2.11	0.10	4.8
Gasoline	2.88	3.32	0.44	15.2
Jet/kerosene	0.84	1.03	0.19	23.3
Diesel	4.28	4.18	-0.10	-2.3
Fuel oil	0.54	0.55	0.02	2.9
Other products	2.53	2.61	0.08	3.1
Total	**15.66**	**16.58**	**0.91**	**5.8**

*Note: * Apparent oil demand. Totals may not add up due to independent rounding.*
Sources: Argus Global Markets, China OGP (Xinhua News Agency), Facts Global Energy, JODI, National Bureau of Statistics China and OPEC.

Near-term expectations

Looking ahead, China is expected to lead global oil demand in **2024**. Healthy economic and services sector activity in 2023 is expected to continue into 2024, albeit with less momentum. In addition, expected healthy manufacturing and driving activity is expected to strengthen diesel and gasoline demand. Growing petrochemical capacity in China's Shandong-based Yulong Petrochemical plant – which should start its 400 tb/d refining complex in 1H24 – is expected to strengthen petrochemical feedstock demand, thus boosting demand for naphtha in the near term. Additionally, China's jet fuel demand is expected to increase further on the prospect of continuing rising air transportation demand. Forward-looking indicators also point towards healthy oil demand in the near term. Accordingly, oil demand in China is anticipated to grow by a healthy 565 tb/d, y-o-y, in 1H24.

Overall in 2024, despite an expected easing in the momentum of China's GDP growth compared with 2023, oil demand is expected to be supported by sustained healthy services sector activity, a recovery in manufacturing activity, and petrochemical sector requirements. Moreover, a further surge in international air travel is expected, as China has lifted the ban on overseas group tours. This could encourage more people to travel abroad. Furthermore, demand for light distillates is also expected to continue rising, due to a sustained expansion in the petrochemical industry. Increased transportation activity is expected to boost demand for gasoline and diesel. China's oil demand is anticipated to expand by a healthy 630 tb/d, y-o-y, for the year.

In **2025**, demand for all products is expected to recover fully to pre-pandemic levels, and China's GDP is projected to remain healthy, though below 2024 figures. China is also projected to be a global leader in petrochemical feedstock demand, while its jet fuel demand is expected to rise on the prospect of strengthening air transportation requirements. Finally, manufacturing and construction activity is also expected to accelerate on the back of healthy economic activity in 2025. The country is projected to post healthy oil demand growth of 410 tb/d, y-o-y.

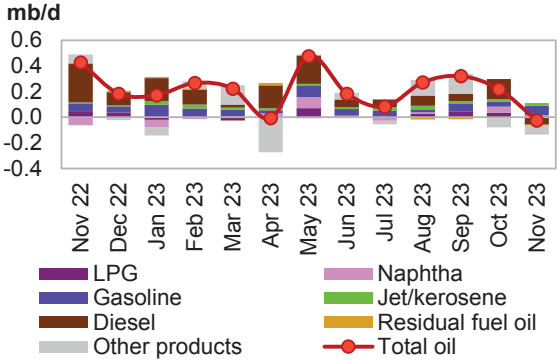
India

Update on the latest developments

Oil demand in India in November declined by 26 tb/d, y-o-y, after attaining 218 tb/d growth the previous month. This is about 6% lower than the same period a year earlier. Demand was subdued because of strong baseline effects amid reduced petrochemical feedstock requirements.

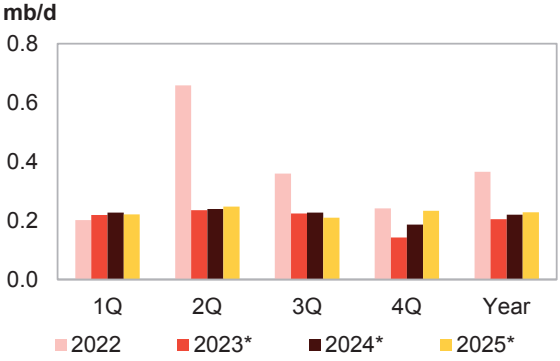
The largest declines were recorded in the 'other products' category, which fell by 71 tb/d, y-o-y, for two consecutive months. Demand for bitumen was negatively affected during the month by a slowdown in road construction activity due to heavy rainfall and delivery delays caused by holidays during the month. Diesel demand weakened by 58 tb/d, y-o-y, compared with growth of 157 tb/d the previous month. Despite the weakness, both industrial and agricultural activities were relatively healthy during the month. The decline in diesel growth was largely due to baseline effects. Residual fuels also softened by 7 tb/d, y-o-y, a slight improvement from the annual decline of 8 tb/d seen in October. In terms of petrochemical feedstock, LPG expanded by 7 tb/d y-o-y, with consumption over the month largely driven by domestic use requirements. Naphtha demand increased by 6 tb/d.

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



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

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



*Note: * 2023 = Estimate and 2024-2025 = Forecast.*
Source: OPEC.

On the positive side, gasoline demand increased by 76 tb/d, y-o-y, up from the 39 tb/d seen the previous month. The increase was supported by healthy mobility, as vehicle sales in India increased by 18.46%, y-o-y, in November. On the back of steady air travel recovery, jet/kerosene increased by 21 tb/d, y-o-y, up from the 19 tb/d annual increase seen the previous month.

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

By product	Nov 22	Nov 23	Change Growth	Nov 23/Nov 22 %
LPG	0.96	0.97	0.01	0.8
Naphtha	0.30	0.30	0.01	1.9
Gasoline	0.81	0.89	0.08	9.4
Jet/kerosene	0.17	0.19	0.02	11.9
Diesel	1.94	1.89	-0.06	-3.0
Fuel oil	0.12	0.12	-0.01	-5.7
Other products	1.04	0.97	-0.07	-6.8
Total	**5.34**	**5.32**	**-0.03**	**-0.5**

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

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

Near-term expectations

In the near term, India's economic growth is expected to remain robust on the back of ongoing economic and business activity, amid the government's proposed programme to build and finance sustainable infrastructure, which is expected to support India's oil demand in 1H24. Moreover, forward-looking indicators show healthy manufacturing and services PMIs, suggesting strong prospects for oil demand in the near term.

In **1H24**, oil demand is projected to expand by an average of 233 tb/d, y-o-y. Distillates are expected to be the driver of oil demand growth, supported mostly by agriculture, construction, and manufacturing activities. Additionally, annual traditional festivities are expected to support transportation activity and boost gasoline demand. Finally, the ongoing air travel recovery is expected to bolster jet/kerosene demand. Moreover, currently, the Indian government announced the elimination of windfall taxes on diesel and jet/kerosene, which is expected to boost the demand for the two products in 2024. Overall, India is expected to see healthy oil demand growth of 220 tb/d, y-o-y, in 2024.

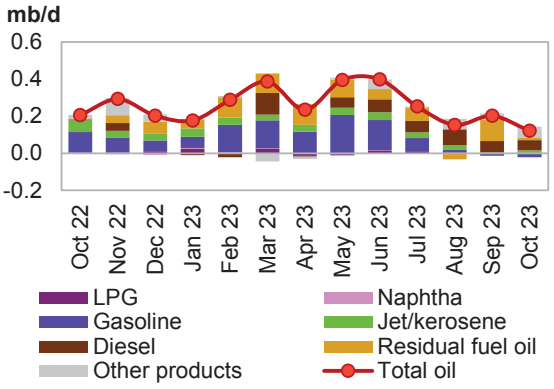
In **2025**, economic growth in India is projected to even surpass the increase seen in 2024. Similarly, manufacturing and business activities are expected to be healthy. These factors are thought to bolster oil demand in India by an average of 228 tb/d. Distillates are expected to be the main driver of demand, followed by the 'other products' category. Similarly, demand for transportation fuels and petrochemical feedstock is expected to remain healthy to support oil demand over the year.

Latin America

Update on the latest developments

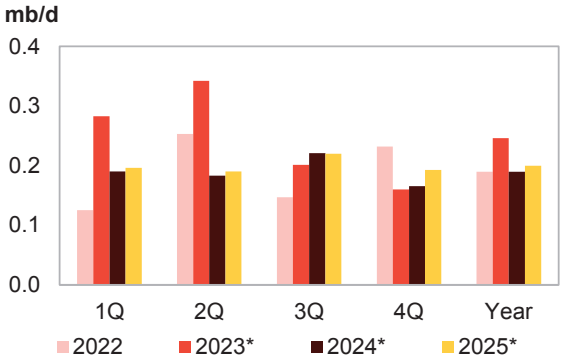
Oil demand in **Latin America** increased by 85 tb/d y-o-y in October, down from growth of 176 tb/d the previous month. The bulk of oil demand growth in the region came from Brazil for the third consecutive month.

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



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

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



*Note: * 2023 = Estimate and 2024-2025 = Forecast.*
Source: OPEC.

In terms of specific product demand, the 'other product' category was the main driver of demand in October, with y-o-y growth of 59 tb/d, above the 34 tb/d y-o-y increase seen in the previous month. In addition, diesel expanded by 56 tb/d, y-o-y, from growth of 61 tb/d in September. Jet/kerosene saw growth of 14 tb/d, y-o-y, up from growth of 5 tb/d recorded a month earlier. However, gasoline demand declined by 21 tb/d, y-o-y, from decline of 10 tb/d seen in September. Finally, in terms of petrochemical feedstock, demand for both LPG and naphtha have remained broadly flat for three consecutive months.

Near-term expectations

Looking ahead, near-term oil demand in the region is expected to remain relatively strong amid projected healthy economic growth, with a steady recovery in air travel and ongoing support from the services and manufacturing sectors, which are anticipated to support regional oil demand growth of 187 tb/d, y-o-y, in 1H24. Overall in **2024**, continued healthy economic activity – combined with improvements in both manufacturing activity and air travel – is expected to support oil demand to grow by 190 tb/d, y-o-y. The oil demand growth outlook sees demand for transportation fuel expanding the most, followed by diesel and petrochemical feedstock.

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

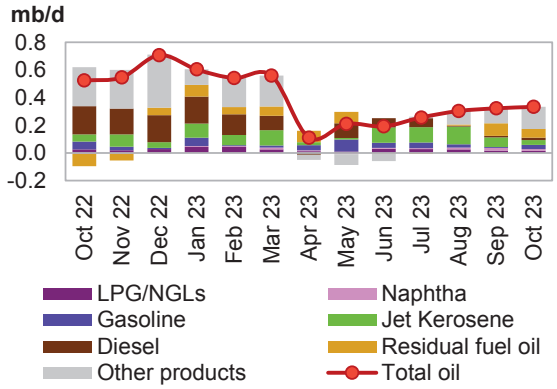
Middle East

Update on the latest developments

Oil demand in the **Middle East** surged further by 334 tb/d y-o-y in October, up from annual growth of 323 tb/d seen in September. This was mostly supported by demand for the 'other products' category from Iraq and Saudi Arabia.

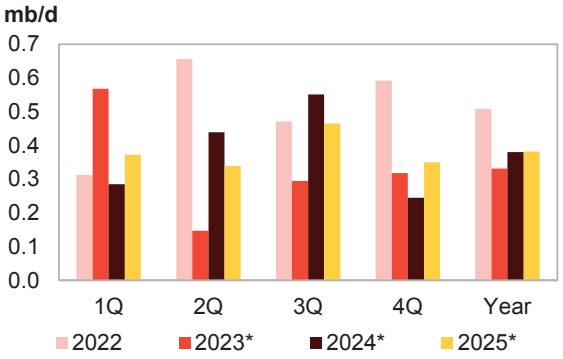
Ongoing strong oil demand in the region has been supported by healthy economic activity. The composite PMI in Saudi Arabia and the UAE has consistently been on an expansionary trajectory for over a year. In October, the 'other products' category led demand growth by 161 tb/d y-o-y, which was higher than the 109 tb/d seen the previous month. Demand was supported by direct burning and industrial sector requirements, according to a report from the General Authority for Statistics of Saudi Arabia/Haver Analytics. The index of industrial production (IIP) in Saudi Arabia has been consistently above 100 for more than a year. In October, the IIP was at 122. Residual fuels posted growth of 62 tb/d y-o-y, slightly below the 91 tb/d increase seen the previous month.

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



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

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



*Note: * 2023 = Estimate and 2024-2025 = Forecast.*
Source: OPEC.

On the back of healthy air travel activity, jet/kerosene in the region recorded y-o-y growth of 35 tb/d, slightly below the 68 tb/d seen the previous month. According to a report from IATA, Middle Eastern carriers posted strong results in October, with international RPKs increasing by 24.1% y-o-y and 6.6% over 2019 levels. The number of available seats was nevertheless still below those of 2019 by 2.7%, while high demand pushed the monthly load factor up by 7% to reach 80.6% of pre-pandemic levels. Gasoline demand growth rose by 31 tb/d on the back of healthy transportation activity, slightly above the 8 tb/d seen the previous month. In terms of petrochemical feedstock, LPG posted growth of 15 tb/d, y-o-y, and naphtha saw growth of 13 tb/d, y-o-y. Finally, diesel demand increased by 17 tb/d, y-o-y.

Table 4 - 7: Iraq's oil demand, mb/d

By product	Nov 22	Nov 23	Change Growth	Nov 23/Nov 22 %
LPG	0.07	0.07	0.00	5.3
Naphtha	0.00	0.01	0.01	900.0
Gasoline	0.18	0.19	0.01	7.1
Jet/kerosene	0.08	0.05	-0.02	-30.6
Diesel	0.16	0.15	0.00	-1.9
Fuel oil	0.18	0.25	0.07	41.7
Other products	0.15	0.11	-0.04	-24.4
Total	**0.81**	**0.84**	**0.04**	**4.7**

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

Near-term expectations

Looking ahead, the current momentum of economic activity in the region is expected to be sustained in 1H24. In addition, the energy-rich region is set to focus more on developing petrochemical projects, taking advantage of the higher margins from these facilities and stronger global demand for petrochemicals. Furthermore, strong growth in international air traffic is also expected to continue. Accordingly, these factors are expected to support oil demand growth in the region, which is forecast to expand by a healthy 362 tb/d, y-o-y, in 1H24. Moreover, composite PMIs in Saudi Arabia and the UAE point to healthy economic and business activity in the near term. Overall, in **2024**, the economic activity in the region is expected to remain healthy. GDP growth rates are forecast to surpass those of 2023. In addition, transportation activity is expected to remain healthy, supporting gasoline, transportation diesel and jet/kerosene. Accordingly, the Middle East is expected to see growth of 380 tb/d, y-o-y. The bulk of demand growth is expected to come from Iraq, Saudi Arabia, and the UAE.

In **2025**, economic growth in the region is projected to surpass 2024, in addition, the ongoing momentum in construction and other economic activity, particularly in Saudi Arabia, Iraq and UAE is expected to remain steady. These factors are expected to support the demand for transportation fuels and other distillates in the region. Similarly, as the region is well placed to capture a big slice of the global growth in petrochemical demand due to its plants' economies of scale, vast energy resources, relatively low production costs and proximity to key markets, demand for petrochemical feedstock are expected to accelerate to support oil demand growth. Accordingly, in 2025, oil demand in the region is expected to expand by an average of 382 tb/d, y-o-y.

World Oil Supply

Non-OPEC liquids production in 2023 is estimated to grow by 2.1 mb/d, y-o-y, reaching 69.1 mb/d. Upward revisions to the estimation for the US, Russia and Latin America offset downward revisions to Africa, Canada, OECD Europe and Other Eurasia.

US crude and condensate production, as well as NGL output, remained robust. In October, total US liquids output maintained a record high of 21.6 mb/d for two consecutive months, demonstrating a persistent overperformance. Accordingly, US liquids supply growth for 2023 is estimated at 1.5 mb/d. In addition to the US, the other main growth drivers for 2023 are estimated to be Brazil, Kazakhstan, Norway, Guyana, Mexico and China.

Non-OPEC liquids production in 2024 is forecast to grow by 1.3 mb/d to average 70.4 mb/d (including 50 tb/d in processing gains). OECD liquids supply is forecast to increase by 0.9 mb/d to average 33.5 mb/d, while non-OECD liquids supply is seen growing by 0.4 mb/d to average 34.4 mb/d. The main drivers for the expected growth are the US, Canada, Guyana, Brazil, Norway and Kazakhstan. In addition to the US shale basins which account for about 49% of expected non-OPEC liquids supply growth, offshore projects – mainly in Latin America – are expected to substantially support growth this year. At the same time, production is forecast to see the largest decline in Mexico and Angola.

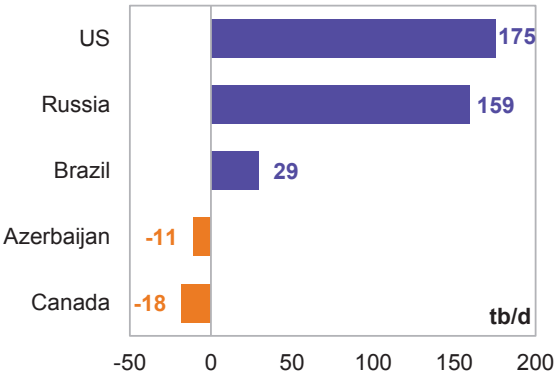
In 2025, non-OPEC liquids production is forecast to grow by 1.3 mb/d to average 71.7 mb/d (including 60 tb/d in processing gains). OECD liquids supply is forecast to increase next year by 0.8 mb/d, and the non-OECD region is projected to grow by 0.4 mb/d. The main drivers for liquids supply growth are expected to be the US, Brazil, Canada, Norway, Kazakhstan and Guyana. At the same time, production is forecast to see a major drop in Mexico.

OPEC NGLs and non-conventional liquids production in 2023 is estimated to grow by about 50 tb/d to average 5.4 mb/d. It is expected to increase by around 60 tb/d to average 5.5 mb/d in 2024 and an additional growth of 110 tb/d is forecast in 2025, averaging 5.6 mb/d. OPEC-12 crude oil production in December increased by 73 tb/d, m-o-m, to average 26.70 mb/d, according to available secondary sources.

Non-OPEC liquids production in December, including OPEC NGLs, is estimated to have decreased by 0.5 mb/d, m-o-m, to average 74.2 mb/d. This represents an increase of 1.3 mb/d, y-o-y. As a result, preliminary data indicates that December's global oil supply was down by 0.41 mb/d, m-o-m, to average 100.9 mb/d, while increasing 0.19 mb/d, y-o-y.

Non-OPEC liquids production in 2023 is estimated to grow by 2.1 mb/d, y-o-y, reaching 69.1 mb/d. Upward revisions to the estimation for the US, Russia and Latin America offset downward revisions to Africa, Canada, OECD Europe and Other Eurasia. Overall OECD supply growth for 2023 is revised up. While OECD Europe sees a downward revision due to the UK and Norway, OECD Americas is revised up owing to the US. OECD Asia Pacific's output growth is estimated to marginally decline. The non-OECD supply growth estimation for 2023 is revised up to 0.4 mb/d, y-o-y. Latin America is estimated to be the main growth driver in the non-OECD region, followed by Other Eurasia and China.

Graph 5 - 1: Major revisions to annual supply change forecast in 2023*, MOMR Jan 24/Dec 23

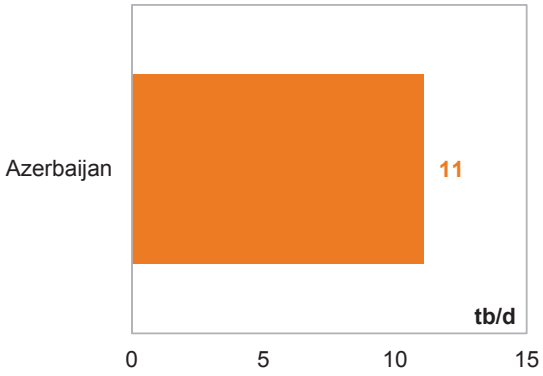


*Note: * 2023 = Estimate. Source: OPEC.*

The **non-OPEC liquids production** growth forecast in **2024** slightly revised down from the previous month's assessment to 1.3 mb/d.

Upward revisions to the supply forecasts of Azerbaijan are primarily offset by downward changes due to Angola's growth expectation.

Graph 5 - 2: Major revisions to annual supply change forecast in 2024*, MOMR Jan 24/Dec 23

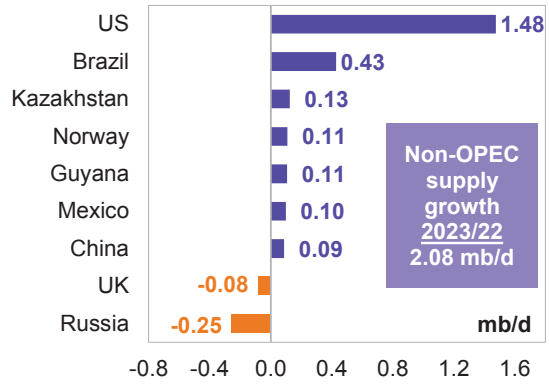


*Note: * 2024 = Forecast. Source: OPEC.*

Key drivers of growth and decline

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

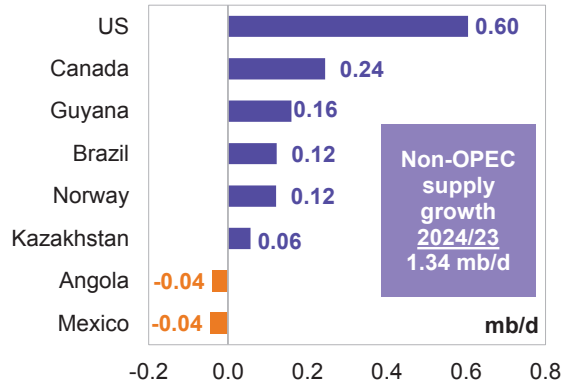
Graph 5 - 3: Annual liquids production changes, y-o-y, for selected countries in 2023*



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

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

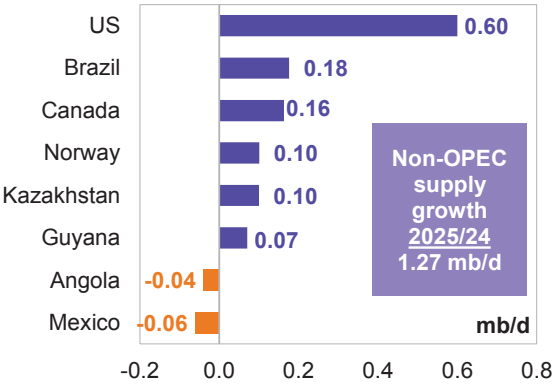
Graph 5 - 4: Annual liquids production changes, y-o-y, for selected countries in 2024*



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

The key drivers of growth for non-OPEC supply in **2025** are forecast to be the US, Brazil, Canada, Norway, Kazakhstan and Guyana, while oil production is anticipated to see the main drops in Mexico and Angola.

Graph 5 - 5: Annual liquids production changes, y-o-y, for selected countries in 2025*



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

Non-OPEC liquids production in 2023, 2024 and 2025

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

Non-OPEC liquids production	2022	1Q23	2Q23	3Q23	4Q23	2023	Change 2024/23 Growth	Change 2024/23 %
Americas	26.91	27.90	28.18	29.03	28.87	28.50	1.58	5.88
of which US	*19.28*	*20.10*	*20.70*	*21.21*	*21.01*	*20.76*	*1.48*	*7.65*
Europe	3.58	3.69	3.65	3.55	3.64	3.63	0.05	1.41
Asia Pacific	0.48	0.45	0.45	0.44	0.45	0.45	-0.03	-6.00
Total OECD	**30.97**	**32.04**	**32.28**	**33.02**	**32.96**	**32.58**	**1.61**	**5.18**
China	4.48	4.63	4.63	4.49	4.52	4.57	0.09	1.95
India	0.77	0.76	0.78	0.78	0.77	0.77	0.00	0.05
Other Asia	2.30	2.31	2.25	2.24	2.27	2.27	-0.03	-1.41
Latin America	6.34	6.69	6.76	7.06	7.19	6.93	0.59	9.34
Middle East	3.29	3.27	3.29	3.27	3.27	3.27	-0.01	-0.38
Africa	2.46	2.32	2.41	2.44	2.44	2.40	-0.06	-2.59
Russia	11.03	11.19	10.86	10.78	10.29	10.78	-0.25	-2.31
Other Eurasia	2.83	2.99	2.93	2.81	2.93	2.92	0.09	3.09
Other Europe	0.11	0.11	0.10	0.10	0.10	0.10	0.00	-3.68
Total Non-OECD	**33.61**	**34.28**	**34.01**	**33.97**	**33.78**	**34.01**	**0.40**	**1.19**
Total Non-OPEC production	64.59	66.32	66.29	66.99	66.75	66.59	2.01	3.10
Processing gains	2.40	2.47	2.47	2.47	2.47	2.47	0.07	2.96
Total Non-OPEC liquids production	**66.98**	**68.79**	**68.76**	**69.46**	**69.21**	**69.06**	**2.08**	**3.10**

*Note: * 2023 = Estimate.*

Non-OPEC supply includes Angola.

Totals may not add up due to independent rounding.

Source: OPEC.

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

Non-OPEC liquids production	2023	1Q24	2Q24	3Q24	4Q24	2024	Change 2024/23 Growth	Change 2024/23 %
Americas	28.50	28.96	29.00	29.47	29.78	29.30	0.80	2.82
of which US	*20.76*	*21.02*	*21.24*	*21.51*	*21.67*	*21.36*	*0.60*	*2.91*
Europe	3.63	3.84	3.72	3.67	3.81	3.76	0.13	3.49
Asia Pacific	0.45	0.46	0.43	0.44	0.42	0.44	-0.01	-2.94
Total OECD	**32.58**	**33.25**	**33.15**	**33.57**	**34.01**	**33.50**	**0.92**	**2.82**
China	4.57	4.59	4.58	4.55	4.55	4.57	0.00	0.06
India	0.77	0.79	0.79	0.79	0.78	0.79	0.01	1.70
Other Asia	2.27	2.25	2.23	2.21	2.21	2.22	-0.05	-2.08
Latin America	6.93	7.14	7.17	7.29	7.37	7.24	0.31	4.54
Middle East	3.27	3.28	3.31	3.30	3.31	3.30	0.03	0.86
Africa	2.40	2.36	2.36	2.40	2.43	2.39	-0.01	-0.57
Russia	10.78	10.74	10.78	10.79	10.79	10.77	0.00	-0.04
Other Eurasia	2.92	2.93	3.01	2.99	3.03	2.99	0.08	2.64
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	-1.15
Total Non-OECD	**34.01**	**34.19**	**34.33**	**34.43**	**34.57**	**34.38**	**0.37**	**1.09**
Total Non-OPEC production	66.59	67.44	67.48	68.00	68.58	67.88	1.29	1.93
Processing gains	2.47	2.52	2.52	2.52	2.52	2.52	0.05	2.03
Total Non-OPEC liquids production	**69.06**	**69.96**	**70.00**	**70.52**	**71.10**	**70.40**	**1.34**	**1.94**

*Note: * 2024 = Forecast.*
Non-OPEC supply includes Angola.
Totals may not add up due to independent rounding.
Source: OPEC.

Table 5 - 3: Non-OPEC liquids production in 2025*, mb/d

Non-OPEC liquids production	2024	1Q25	2Q25	3Q25	4Q25	2025	Change 2025/24 Growth	Change 2025/24 %
Americas	29.30	29.82	29.72	30.09	30.38	30.00	0.70	2.40
of which US	*21.36*	*21.72*	*21.87*	*22.07*	*22.19*	*21.96*	*0.60*	*2.81*
Europe	3.76	3.94	3.81	3.79	3.90	3.86	0.10	2.67
Asia Pacific	0.44	0.43	0.42	0.43	0.43	0.43	-0.01	-1.79
Total OECD	**33.50**	**34.18**	**33.95**	**34.31**	**34.71**	**34.29**	**0.79**	**2.37**
China	4.57	4.61	4.59	4.55	4.55	4.57	0.01	0.12
India	0.79	0.78	0.79	0.80	0.80	0.80	0.01	1.00
Other Asia	2.22	2.21	2.17	2.14	2.14	2.16	-0.06	-2.64
Latin America	7.24	7.44	7.47	7.54	7.60	7.51	0.27	3.69
Middle East	3.30	3.32	3.35	3.34	3.34	3.34	0.03	1.04
Africa	2.39	2.41	2.40	2.40	2.40	2.40	0.02	0.71
Russia	10.77	10.81	10.80	10.79	10.82	10.81	0.03	0.28
Other Eurasia	2.99	3.09	3.13	3.07	3.11	3.10	0.11	3.69
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	1.97
Total Non-OECD	**34.38**	**34.77**	**34.81**	**34.74**	**34.87**	**34.80**	**0.42**	**1.21**
Total Non-OPEC production	67.88	68.96	68.76	69.05	69.58	69.09	1.21	1.78
Processing gains	2.52	2.58	2.58	2.58	2.58	2.58	0.06	2.38
Total Non-OPEC liquids production	**70.40**	**71.54**	**71.34**	**71.63**	**72.16**	**71.67**	**1.27**	**1.80**

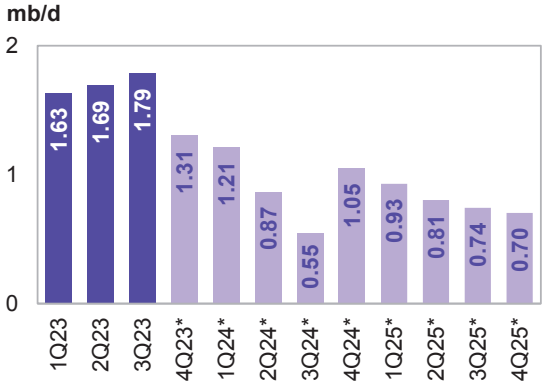
*Note: * 2025 = Forecast.*
Non-OPEC supply includes Angola.
Totals may not add up due to independent rounding.
Source: OPEC.

OECD

OECD liquids production in 2023 is estimated to expand by 1.6 mb/d to average 32.6 mb/d. An adjustment was made upward following revisions in OECD Americas.

Growth is set to be led by OECD Americas, which is estimated to expand by 1.6 mb/d to average 28.5 mb/d. This is up by about 160 tb/d compared with the previous month's assessment. Yearly liquids production in OECD Europe is estimated to grow by 0.1 mb/d to average 3.6 mb/d. This is down by 11 tb/d compared with the previous assessment. OECD Asia Pacific is estimated to decline by about 29 tb/d, y-o-y, to average 0.4 mb/d.

Graph 5 - 6: OECD quarterly liquids supply, y-o-y changes



*Note: * 4Q23-4Q25 = Forecast. Source: OPEC.*

For **2024**, OECD liquids production is likely to grow by 0.9 mb/d to average 33.5 mb/d. Growth will once again be led by OECD Americas, with an expected increase of 0.8 mb/d for an average of 29.3 mb/d. Yearly liquids production in OECD Europe is expected to grow by 0.1 mb/d to average 3.8 mb/d, while OECD Asia Pacific is expected to decline by 13 tb/d, y-o-y, to average 0.4 mb/d.

OECD liquids production is forecast to grow by 0.8 mb/d to average 34.3 mb/d in **2025**. OECD Americas is expected to be the main growth driver, with an expected increase of 0.7 mb/d for an average of 30.0 mb/d. Yearly liquids production in OECD Europe is expected to grow by 0.1 mb/d to average 3.9 mb/d, while OECD Asia Pacific is expected to decline by a minor 8 tb/d, y-o-y, to average 0.4 mb/d.

OECD Americas

US

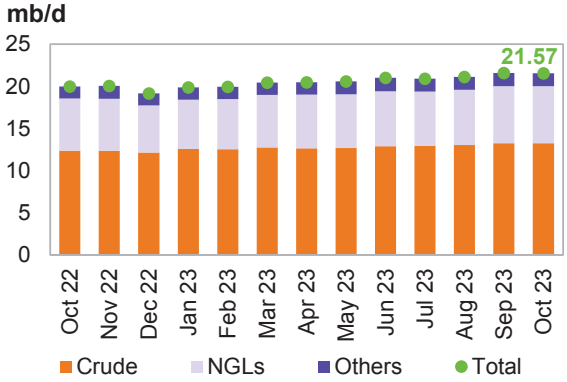
US liquids production in **October** fell by a minor 12 tb/d, m-o-m, to average 21.6 mb/d, very close to the highest level on record set in September 2023. This was up by 1.6 mb/d compared with October 2022.

Crude oil and condensate production remained largely unchanged, m-o-m, at an average of 13.2 mb/d in **October**. This was up by 0.9 mb/d, y-o-y.

In terms of **crude and condensate production breakdowns by region (PADDs)**, production decreased marginally on the US Gulf Coast (USGC) by about 7 tb/d to average 9.6 mb/d. Production in the East and West Coast regions rose by 8 tb/d each. Output in the Rocky Mountain rose by 17 tb/d, while the Midwest showed a drop of 31 tb/d, m-o-m.

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

Graph 5 - 7: US monthly liquids output by key component



Sources: EIA and OPEC.

NGL production was up by about 17 tb/d, m-o-m, for an average of 6.8 mb/d in October. This was higher by 0.6 mb/d, y-o-y. According to the US Department of Energy (DoE), the production of **non-conventional liquids** (mainly ethanol) fell by 25 tb/d, m-o-m, to average 1.5 mb/d. Preliminary estimates see non-conventional liquids averaging about 1.5 mb/d in November, broadly unchanged m-o-m.

GoM production dropped by 40 tb/d, m-o-m, to average 2.0 mb/d in October, but still was supported by new project ramp-ups. In the **onshore Lower 48**, crude and condensate production increased by 25 tb/d, m-o-m, to average 10.9 mb/d in October.

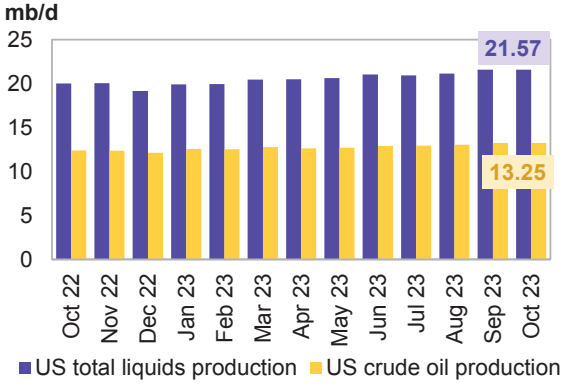
Table 5 - 4: US crude oil production by selected state and region, tb/d

State	Oct 22	Sep 23	Oct 23	Change m-o-m	Change y-o-y
Texas	5,233	5,586	5,607	*21*	*374*
Gulf of Mexico (GOM)	1,789	1,999	1,959	*-40*	*170*
New Mexico	1,730	1,822	1,836	*14*	*106*
North Dakota	1,108	1,305	1,274	*-31*	*166*
Colorado	442	458	469	*11*	*27*
Oklahoma	425	424	423	*-1*	*-2*
Alaska	435	415	426	*11*	*-9*
Total	**12,378**	**13,252**	**13,248**	***-4***	***870***

Sources: EIA and OPEC.

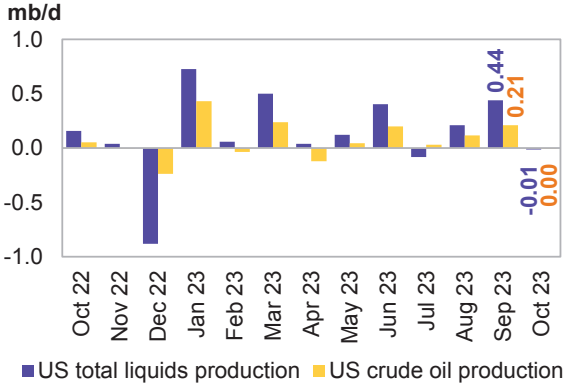
Looking at **individual US states**, New Mexico's oil production rose by 14 tb/d to average 1.8 mb/d, which is 106 tb/d higher than a year ago. Production from Texas was up by 21 tb/d to average 5.6 mb/d, which is 374 tb/d higher than a year ago. In the Midwest, North Dakota's production fell by 31 tb/d, m-o-m, to average 1.3 mb/d, up 166 tb/d, y-o-y, while Oklahoma's production remained largely unchanged, m-o-m, at average 0.4 mb/d. Production in Alaska and Colorado rose by 11 tb/d each, m-o-m.

Graph 5 - 8: US monthly crude oil and total liquids supply



Sources: EIA and OPEC.

Graph 5 - 9: US monthly crude oil and total liquids supply, m-o-m changes



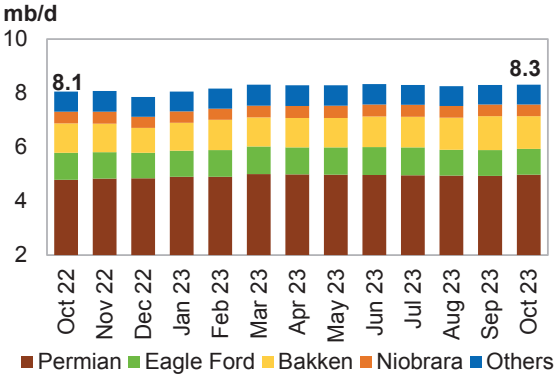
Sources: EIA and OPEC.

US tight crude output in **October** is estimated to have risen by a minor 5 tb/d, m-o-m, to average 8.3 mb/d, according to the latest estimates by the US Energy Information Administration (EIA). This was 0.3 mb/d higher than the same month last year.

The m-o-m increase from shale and tight formations using horizontal wells came mainly from Permian shale production in Texas and New Mexico, where output rose by 41 tb/d for an average of 5.0 mb/d. This was up by 191 tb/d, y-o-y.

In North Dakota, Bakken shale oil output fell by 30 tb/d, m-o-m, averaging 1.2 mb/d, up by 139 tb/d, y-o-y. Tight crude output at Eagle Ford in Texas dropped by a minor 4 tb/d to average 1.0 mb/d, down by 54 tb/d, y-o-y. Production at Niobrara-Codell in Colorado and Wyoming was unchanged at an average of 431 tb/d.

Graph 5 - 10: US tight crude output breakdown

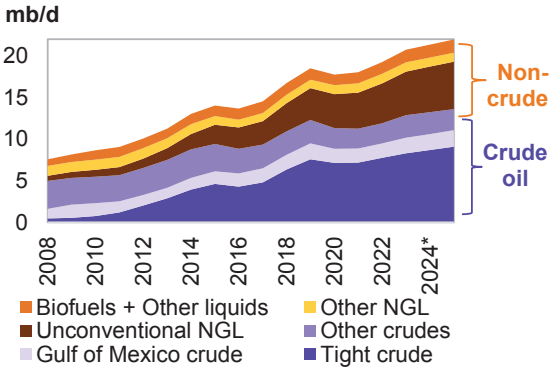


Sources: EIA and OPEC.

US liquids production in **2023**, excluding processing gains, is estimated to expand by 1.5 mb/d, y-o-y, to average 20.8 mb/d, given the stronger-than-expected output in recent months and considering the EIA's weekly production data trend. Despite declining drilling activity since the start of this year, well productivity and operational efficiency, as well as drilled-but-uncompleted wells' usage, has helped boost production.

Given a sound level of oil field drilling and well completions, **crude oil and condensate** output is estimated to increase by 1.0 mb/d, y-o-y, to average 12.9 mb/d. Average tight crude output in 2023 is estimated at 8.3 mb/d, up by 0.6 mb/d, y-o-y.

Graph 5 - 11: US liquids supply developments by component



*Note: * 2023 = Eatimate and 2024-2025 = Forecast.*
Source: OPEC.

At the same time, NGL production and non-conventional liquids, particularly ethanol, are estimated to increase by 0.4 mb/d and 81 tb/d, y-o-y, to average 6.3 mb/d and 1.5 mb/d, respectively.

US liquids production in **2024**, excluding processing gains, is expected to grow by 0.6 mb/d, y-o-y, to average 21.4 mb/d, assuming a modest level of drilling activity and less supply chain/logistical issues at the prolific Permian, Bakken and Eagle Ford shale sites. **Crude oil and condensate** outputs are expected to jump by 0.3 mb/d, y-o-y, to average 13.2 mb/d. At the same time, NGL production and that of non-conventional liquids, particularly ethanol, are projected to increase by 0.2 mb/d and 30 tb/d, y-o-y, to average 6.6 mb/d and 1.6 mb/d, respectively.

Average tight crude output in 2024 is expected to reach 8.7 mb/d, up by 0.4 mb/d, y-o-y. The 2024 forecast assumes ongoing capital discipline and less inflationary pressure, as well as moderating supply chain issues and oil field service constraints (labour and equipment).

US liquids production, excluding processing gains, is expected to grow by 0.6 mb/d, y-o-y, to average 22.0 mb/d in **2025**, assuming a mild increase in drilling activity, lower service cost inflation and well productivity improvements at the key shale basins. **Crude oil and condensate** output is expected to jump by 0.4 mb/d, y-o-y, to average 13.6 mb/d. At the same time, NGL production and that of non-conventional liquids, particularly ethanol, are projected to increase by 0.2 mb/d and 20 tb/d, y-o-y, to average 6.8 mb/d and 1.6 mb/d, respectively. Average tight crude output in 2025 is expected to reach 9.1 mb/d, up by 0.4 mb/d, y-o-y. The 2025 forecast assumes ongoing capital discipline and less inflationary pressure in the US upstream sector.

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

US liquids	2023*	Change 2023/22	2024*	Change 2024/23	2025*	Change 2025/24
Tight crude	8.30	0.55	8.70	0.40	9.10	0.40
Gulf of Mexico crude	1.87	0.14	1.90	0.03	1.97	0.07
Conventional crude oil	2.72	0.29	2.63	-0.09	2.54	-0.09
Total crude	**12.89**	**0.98**	**13.23**	**0.34**	**13.61**	**0.38**
Unconventional NGLs	5.23	0.45	5.48	0.26	5.70	0.22
Conventional NGLs	1.12	-0.03	1.09	-0.03	1.07	-0.02
Total NGLs	**6.35**	**0.41**	**6.58**	**0.23**	**6.78**	**0.20**
Biofuels + Other liquids	1.52	0.08	1.55	0.03	1.57	0.02
US total supply	**20.76**	**1.48**	**21.36**	**0.60**	**21.96**	**0.60**

*Note: * 2023 = Estimate, 2024-2025 = Forecast.*

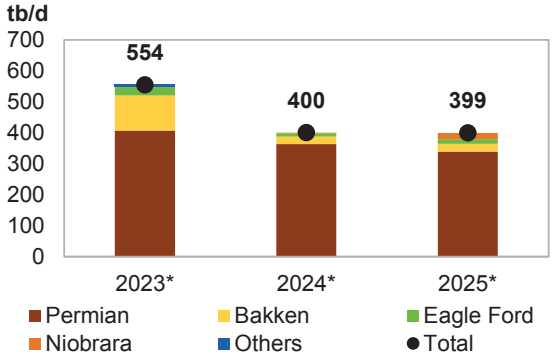
Sources: EIA, OPEC and Rystad Energy.

US tight crude production in the **Permian** during 2023 is estimated to increase by 0.4 mb/d, y-o-y, to average 5.0 mb/d. In 2024, it is forecast to grow by 0.4 mb/d, y-o-y, to average 5.4 mb/d, while a growth of 0.3 mb/d is expected for 2025.

In North Dakota, **Bakken** shale production is still expected to remain below the pre-pandemic average of 1.4 mb/d. In 2023, growth is estimated at 0.1 mb/d for an average of 1.1 mb/d. Growth of just 25 tb/d is expected for 2024 and 2025, respectively, for an average of 1.2 mb/d in both years, demonstrating maturity in the basin.

The **Eagle Ford** in Texas saw an output of 1.2 mb/d in 2019, followed by declines from 2020 to 2022 and no growth in 2022. With an estimated growth of about 27 tb/d for 2023, output rests at an average of 1.0 mb/d. At the same time, minor growth of 10 tb/d and 15 tb/d is expected for 2024 and 2025 respectively.

Graph 5 - 12: US tight crude output by shale play, y-o-y changes



*Note: * 2023 = Estimate and 2024-2025 = Forecast.*
Sources: EIA and OPEC.

Niobrara's production is estimated to remain largely unchanged, y-o-y, in 2023, with an average of 434 tb/d. Following no meaningful expected growth for 2024, output is forecast to rise by 20 tb/d in 2025. With a modest pace of drilling and completion activities, production in other tight plays is estimated to show an increase of 7 tb/d in 2023, before remaining steady in 2024 and 2025.

Table 5 - 6: US tight oil production growth, mb/d

US tight oil	2023*	Change 2023/22	2024*	Change 2024/23	2025*	Change 2025/24
Permian tight	4.99	0.41	5.35	0.36	5.69	0.34
Bakken shale	1.14	0.11	1.17	0.03	1.19	0.03
Eagle Ford shale	0.99	0.03	1.00	0.01	1.02	0.02
Niobrara shale	0.43	0.00	0.44	0.00	0.46	0.02
Other tight plays	0.74	0.01	0.74	0.00	0.74	0.00
Total	**8.30**	**0.55**	**8.70**	**0.40**	**9.10**	**0.40**

*Note: * 2023 = Estimate and 2024-2025 = Forecast.*

Source: OPEC.

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

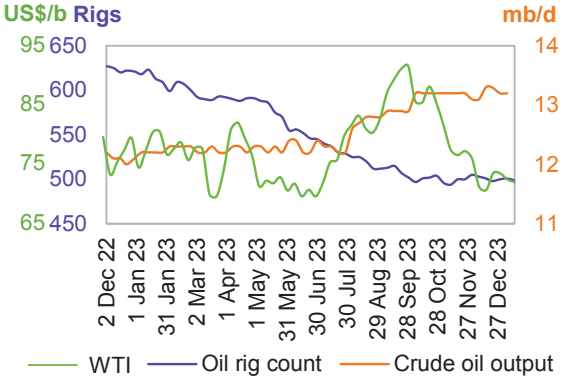
The total number of **active US drilling rigs** in the week ending 5 January 2024 fell by one to 621, according to Baker Hughes, 51 rigs less than a year ago. The number of active offshore rigs remained unchanged, w-o-w, at 20. This was four higher than the same month a year earlier. Onshore oil and gas rigs were lower by one, w-o-w, to stand at 601, with no rigs in inland waters. This is down by 153 rigs, y-o-y.

The **US horizontal rig count** fell by one, w-o-w, to 564, compared with 700 horizontal rigs a year ago. The number of drilling rigs for oil increased by one, w-o-w, to 501, while the number of gas-drilling rigs fell by two, w-o-w, to 118.

The Permian's rig count rose by two, w-o-w, to 311. Rig counts remained unchanged in Williston, Eagle Ford and Niobrara at 32, 53 and 14, respectively. At the same time, the number of rigs remained unchanged, w-o-w, in Cana Woodford at 22.

Only one operating oil rig has been reported in the Barnett Basin since 17 November.

Graph 5 - 13: US weekly rig count vs. US crude oil output and WTI price



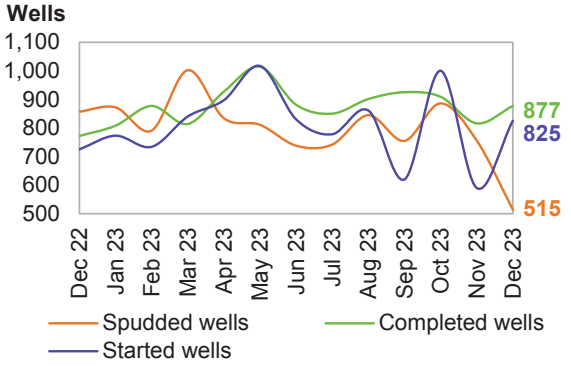
Sources: Baker Hughes, EIA and OPEC.

Drilling and completion (D&C) activities for spudded, completed and started oil-producing wells in all US shale plays included 756 horizontal wells spudded in November (as per preliminary data), based on EIA-DPR regions. This is down by 130, m-o-m, and 7% lower than in November 2022.

Preliminary data for November indicates a lower number of completed wells at 816, up by 6%, y-o-y. The number of started wells is estimated at 590, which is 20% lower than a year earlier.

Preliminary data for December 2023 saw 515 spudded, 877 completed, and 825 started wells, according to Rystad Energy.

Graph 5 - 14: Spudded, completed and started wells in US shale plays

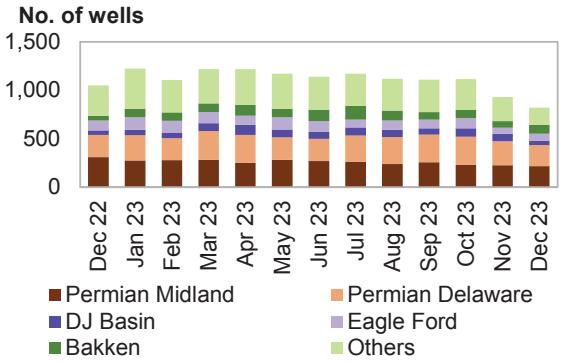


Note: Nov 23-Dec 23 = Preliminary data.
Sources: Rystad Energy and OPEC.

In terms of identified **US oil and gas fracking operations by region**, Rystad Energy reported that 1,114 wells were fracked in October. In November and December, it stated that 928 and 820 wells began fracking, respectively, according to preliminary numbers based on the analysis of high-frequency satellite data.

In regional terms, preliminary November data shows that 227 and 247 wells were fracked in Permian Midland and Permian Delaware, respectively. Compared with October, there was a decrease of two wells in the Midland region and a drop of 44 in Delaware. Data also indicates that 78 wells were fracked in the DJ Basin, 61 in Eagle Ford and 68 in Bakken during November.

Graph 5 - 15: Fracked wells count per month



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

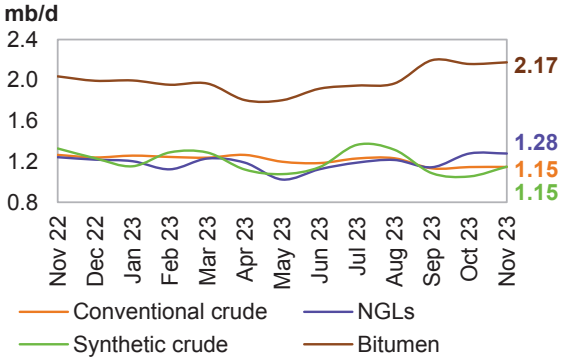
Canada

Canada's liquids production in **November** is estimated to have risen by 113 tb/d, m-o-m, to average 5.8 mb/d, as oil sands producers completed maintenance work.

Conventional crude production remained unchanged, m-o-m, in November at an average of 1.2 mb/d. At the same time, NGL output was untouched, averaging 1.3 mb/d.

Crude bitumen production output rose in November by 16 tb/d, m-o-m, while synthetic crude increased by 96 tb/d, m-o-m. Taken together, crude bitumen and synthetic crude production rose by 112 tb/d to 3.3 mb/d.

Graph 5 - 16: Canada's monthly liquids production development by type



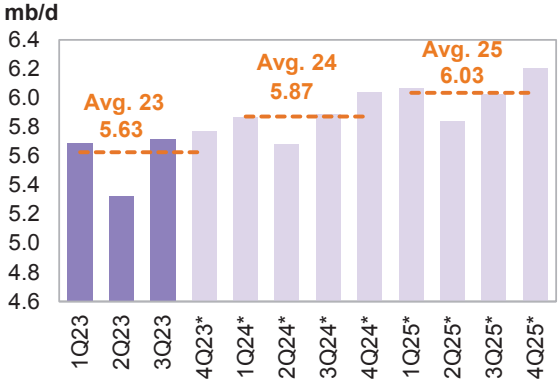
Sources: Statistics Canada, Alberta Energy Regulator and OPEC.

For **2023**, Canada's liquids production is estimated to increase by about 10 tb/d to average 5.6 mb/d. This is revised down by 18 tb/d compared with the previous month's assessment.

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

Canada's liquids production is forecast to grow by 0.2 mb/d to average 6.0 mb/d in **2025**. Additional production is expected to come through oil sands project expansion and some conventional field growth. Primarily, sources of production are expected from Athabasca, Syncrude Mildred Lake, Kearl, Horizon, Christina Lake, Suncor and Foster Creek oil Sands projects. The main start-ups in 2025 are expected to be Syncrude Mildred Lake/Aurora, Narrows Lake, Lloyd Thermal, Cold Lake Oil Sands and Montney Play.

Graph 5 - 17: Canada's quarterly liquids production and forecast



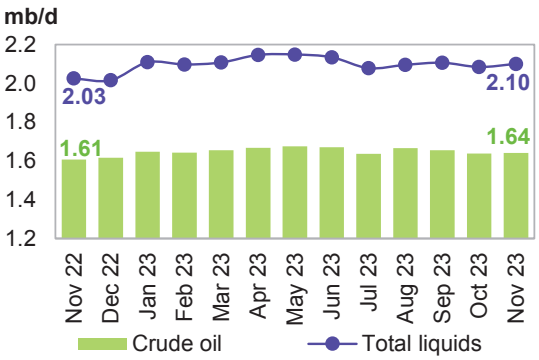
*Note: * 4Q23-4Q25 = Forecast. Source: OPEC.*

Mexico

Mexico's crude output remained largely unchanged, m-o-m, in **November** at an average of 1.6 mb/d, while NGL output rose by 13 tb/d. Mexico's total November liquids output rose by 16 tb/d, m-o-m, to average 2.1 mb/d, according to the Comisión Nacional de Hidrocarburos (CNH). This was almost in line with previous expectations.

For **2023**, liquids production is estimated to rise by about 0.1 mb/d for an average of 2.1 mb/d. This is broadly unchanged from the previous month's assessment. Declines from mature fields are expected to continue offsetting monthly gains from new fields.

Graph 5 - 18: Mexico's monthly liquids and crude production development



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

For **2024**, liquids production is forecast to decline by 45 tb/d to average 2.1 mb/d. In general, declines from mature fields are expected to offset any gains from new projects. Pemex's total crude production decline in mature areas like Ku-Maloob-Zaap and Integral Yaxche-Xanab is forecast to outweigh production ramp-ups in Area-1 and El Golpe-Puerto Ceiba, and from a few start-ups, namely TM-01, Paki and AE-0150-Uchukil.

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

OECD Europe

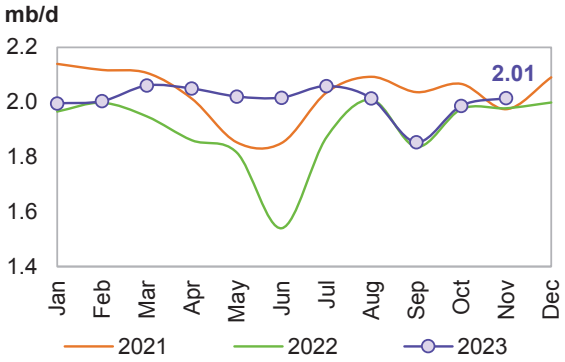
Norway

Norwegian liquids production in **November** rose by 28 tb/d, m-o-m, to average 2.0 mb/d. This was supported by a recovery from unplanned shutdowns and equipment failures in September.

Norway's crude production increased by a minor 7 tb/d, m-o-m, in November to average 1.8 mb/d, higher by 26 tb/d, y-o-y. Monthly oil production was 3.1% lower than the Norwegian Petroleum Directorate's (NPD) forecast.

Production of NGLs and condensate, meanwhile, rose by 21 tb/d, m-o-m, to average 0.2 mb/d, according to NPD data.

Graph 5 - 19: Norway's monthly liquids production development



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

In **2023**, Norwegian liquids production is estimated to expand by 0.1 mb/d, remaining broadly unchanged compared with last month's forecast, for an average of 2.0 mb/d. Technical challenges, operational irregularities and periodical shut-downs have been the main causes of output declines in some offshore platforms in Norwegian fields in 2023.

For **2024**, Norwegian liquids production is forecast to grow by 120 tb/d to average 2.1 mb/d. Some small-to-large projects are scheduled to ramp up this year. At the same time, start-ups are expected at the Balder/Ringhorne, Eldfisk, Kristin, Alvheim FPSO, Hanz, Skarv Aasgard FPSO and PL636 offshore projects. Johan Castberg is projected to be the main source of output increases this year, with first oil planned to be produced in 4Q24.

Norwegian liquids production is forecast to grow by 100 tb/d to average 2.2 mb/d in **2025**. Several small-to-large scale projects are scheduled to ramp up in 2025 like Johan Castberg, Kristin, Eldfisk and Balder/Ringhorne. At the same time, start-ups are expected at the Ormen Lange, Snohvit, Halten East, Tyrving, Eirin, Norne FPSO, Maria and Verdande projects.

UK

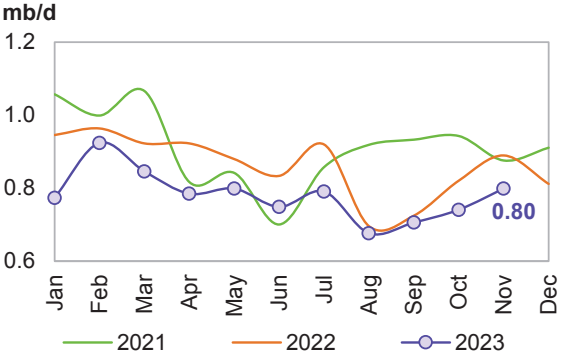
In **November**, **UK liquids production** rose by 58 tb/d, m-o-m, to average 0.8 mb/d. Crude oil output increased by 56 tb/d, m-o-m, to average 0.7 mb/d, lower by 93 tb/d, y-o-y, according to official data. NGL output remained largely unchanged to average 74 tb/d. UK liquids output in November was down by 10% compared with November 2022, mainly due to natural declines and a lower production base.

For **2023**, UK liquids production is estimated to drop by almost 80 tb/d to average 0.8 mb/d, down by about 6 tb/d from the previous month's assessment, mainly due to lower-than-expected November output.

For **2024**, UK liquids production is forecast to stay steady at an average of 0.8 mb/d. Production ramp-ups will be seen at the ETAP and Clair sites, as well as at the Anasuria and Captain enhanced oil recovery (EOR) start-up projects. The Penguins FPSO is expected to be towed out to the UK North Sea field in 1H24.

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

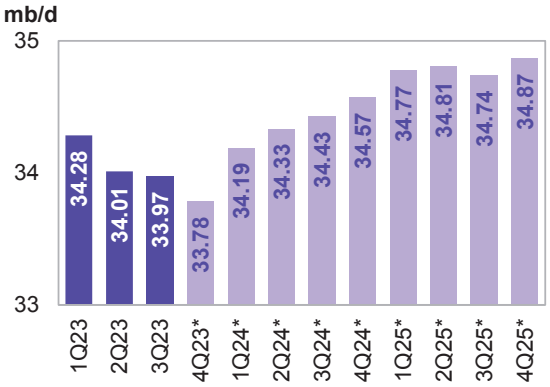
Graph 5 - 20: UK monthly liquids production development



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

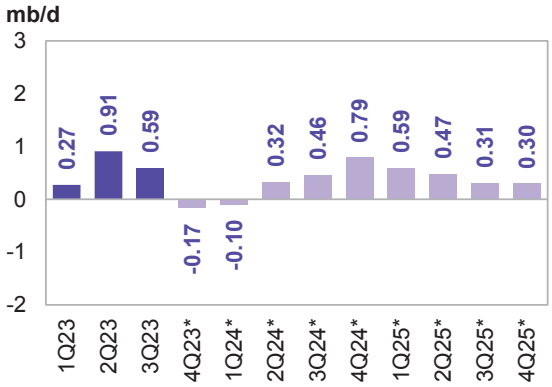
Non-OECD

Graph 5 - 21: Non-OECD quarterly liquids production and forecast



*Note: * 4Q23-4Q25 = Forecast. Source: OPEC.*

Graph 5 - 22: Non-OECD quarterly liquids supply, y-o-y changes

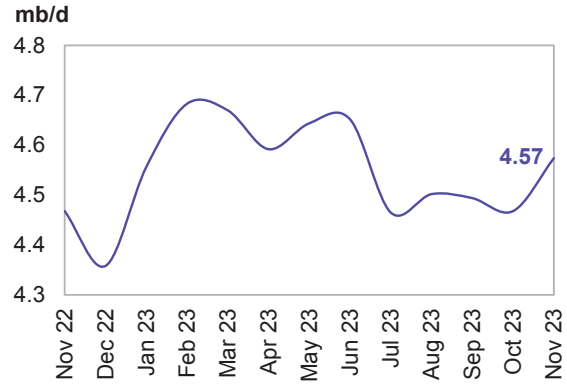


*Note: * 4Q23-4Q25 = Forecast. Source: OPEC.*

China

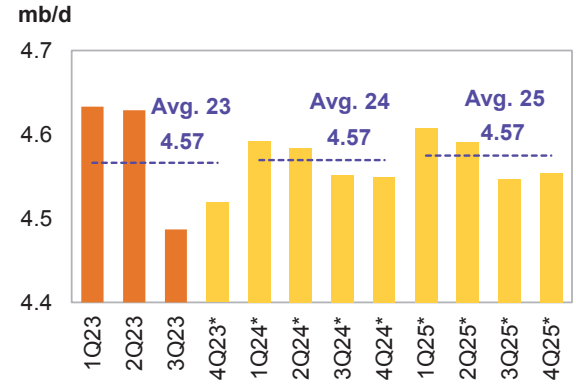
China's liquids production rose by 106 tb/d, m-o-m, to average 4.6 mb/d in **November**. This is up by 106 tb/d, y-o-y, according to official data. Crude oil output in November averaged 4.2 mb/d, up by 0.1 mb/d compared with the previous month, and higher by 0.1 mb/d, y-o-y. NGL and condensate production was largely stable, m-o-m, averaging 48 tb/d.

Graph 5 - 23: China's monthly liquids production development



Sources: CNPC and OPEC.

Graph 5 - 24: China's quarterly liquids production and forecast



*Note: * 4Q23-4Q25 = Forecast. Sources: CNPC and OPEC.*

For **2023**, y-o-y growth of about 90 tb/d is estimated for an average of 4.6 mb/d. This is roughly unchanged from the previous month's assessment. Natural decline rates are expected to be offset by additional growth through more infill wells and EOR projects amid efforts made by state-owned oil companies to further enhance energy security. Furthermore, regarding China's offshore oil production outlook, CNOOC's Energy Economics Institute (CEEI) recently noted the importance of deepwater and ultra-deepwater production following advances in exploration and development technology.

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

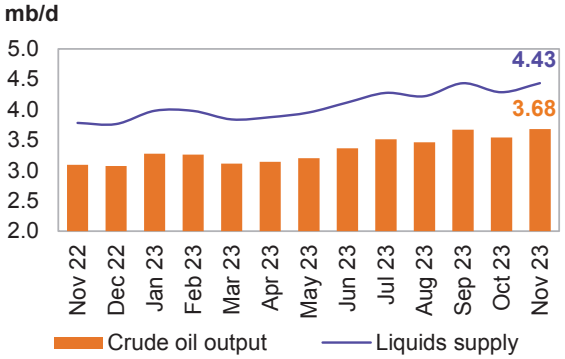
Chinese liquids production is expected to remain steady, y-o-y, and is forecast to average 4.6 mb/d in **2025**. For next year, oil and gas condensate projects like Bozhong 19-6, Huizhou 26-6, Peng Lai 19-9, Shengli, Wushi 17-2, Liaohe and Xijiang 30-2 are planned to come on stream, operated by CNOOC and Sinopec. At the same time, key ramp-ups are expected from Changqing, Tarim, Xibei, Peng Lai 19-9 and Xi'nan.

Latin America

Brazil

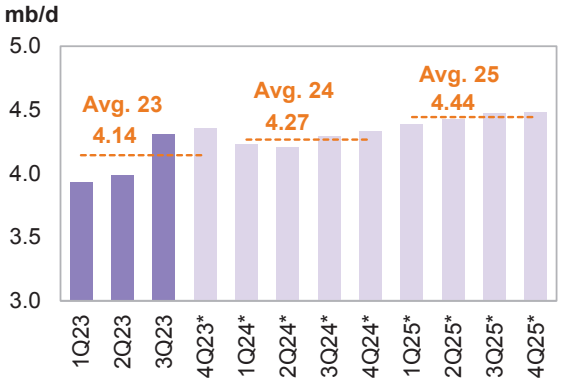
Brazil's crude output in **November** rose by 136 tb/d, m-o-m, to average 3.7 mb/d. NGL production, however, increased by 13 tb/d to an average of around 80 tb/d and was expected to remain flat in December. Biofuel output (mainly ethanol) remained mostly unchanged at an average of 0.7 mb/d, with preliminary data showing a stable trend in December. The country's total liquids production increased by 149 tb/d in November to average 4.4 mb/d. Once again, and akin to September 2023, Brazil's total liquids output hit the record in November.

Graph 5 - 25: Brazil's monthly liquids production development by type



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

Graph 5 - 26: Brazil's quarterly liquids production



*Note: * 4Q23-4Q25 = Forecast. Sources: ANP and OPEC.*

For **2023**, Brazil's liquids supply, including biofuels, is estimated to rise by 0.4 mb/d, y-o-y, to average 4.1 mb/d, revised up by about 30 tb/d from the previous month's assessment due to stronger-than-expected output in November and higher than expected production in 4Q23. Higher production bases this year have been due to the ramp-ups of new units, improving performances of existing assets, and fewer maintenance events.

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

Brazil's liquids supply, including biofuels, is forecast to increase by about 180 tb/d, y-o-y, to average 4.4 mb/d in **2025**. Crude oil output is expected to increase through production ramp-ups in the Buzios (Franco), Mero (Libra NW), Tupi (Lula), Marlim and Atlanta fields. Oil project start-ups are expected at the Buzios, Bacalhau (x-Carcara), Parque das Baleias, and Lapa (Carioca).

Russia

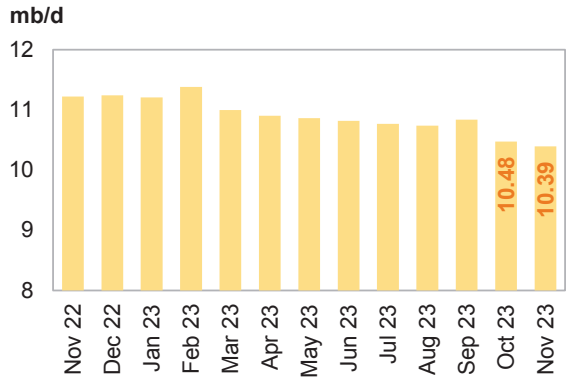
Russia's liquids production in November is estimated to fall by about 80 tb/d, m-o-m, to average 10.4 mb/d. This includes 9.2 mb/d of crude oil and 1.2 mb/d of NGLs and condensate.

For **2023**, Russian liquids production is estimated to drop by 0.3 mb/d for an average of 10.8 mb/d. It is worth noting that this takes into account all announced production adjustments of the countries in the DoC to the end of 2023.

For **2024**, Russian liquids production is forecast to remain steady with the previous year, averaging 10.8 mb/d. In addition to project ramp-ups at several oil fields, there will be start-ups by Rosneft, Russneft, Lukoil, Gazprom, Neftisa and TenderResurs. However, overall additional liquids production is expected to be offset by declines at mature fields.

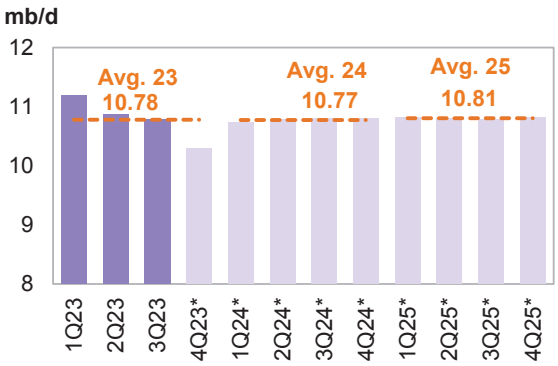
Russian liquids production is forecast to increase marginally by 30 tb/d compared with the previous year, averaging 10.8 mb/d in **2025**. In addition to project ramp-ups at several oil fields, there will be start-ups by Lukoil, Russneft, Sheshmaoil, Gazprom, Rosneft and Sintek-Oil.

Graph 5 - 27: Russia's monthly liquids production



Sources: Nefte Compass and OPEC.

Graph 5 - 28: Russia's quarterly liquids production



*Note: * 4Q23-4Q25 = Forecast.*
Sources: Nefte Compass and OPEC.

Caspian

Kazakhstan & Azerbaijan

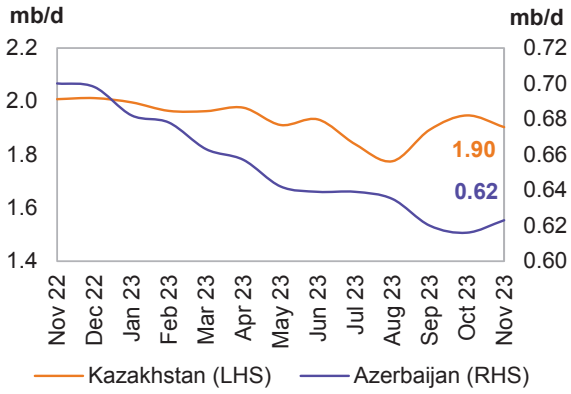
Liquids output in Kazakhstan dropped by 44 tb/d, m-o-m, to average 1.9 mb/d in **November**. Crude production was down by 45 tb/d, m-o-m, to average 1.6 mb/d. NGL and condensate output remained largely unchanged, m-o-m, at an average of 0.4 mb/d.

For **2023**, liquids supply is estimated to increase by 0.1 mb/d for an average of 1.9 mb/d, remaining primarily unchanged from the previous forecast.

Kazakh oil production disruption in late November due to storms near the Russian port of Novorossiysk had a minimal effect on liquids output, as oil loadings at its Black Sea terminal swiftly resumed.

For **2024**, the liquids supply is forecast to increase by about 60 tb/d to average 2.0 mb/d, remaining unchanged compared with the previous assessment. Growth is expected mainly from production ramp-ups in the Tengiz oil field given an expansion at the Tengizchevroil Future Growth Project (FGP) and the Wellhead Pressure Management Project in 2H24.

Graph 5 - 29: Caspian monthly liquids production development by selected country



Sources: Nefte Compass, JODI and OPEC.

Kazakhstan's liquids supply is forecast to rise by about 100 tb/d to average 2.1 mb/d in **2025**. Growth is forecast to come mainly from the FGP oil (second phase) and several gas condensate project ramp-ups. Oil production in the Kashagan field and gas condensate output in the Karachaganak field are also expected to rise marginally.

Azerbaijan's liquids production in **November** rose by a minor 7 tb/d, m-o-m, averaging 0.6 mb/d, which is a drop of 77 tb/d, y-o-y. Crude production averaged 494 tb/d, with NGL output at 129 tb/d, according to official sources.

Azerbaijan's liquids supply for **2023** is estimated to drop by about 40 tb/d to average 0.7 mb/d. This is a downward revision of about 11 tb/d stemming from lower-than-expected production at major oil fields in November. The majority of declines in legacy reservoirs, like the Azeri-Chirag-Guneshli (ACG) oil fields, were estimated to offset ramp-ups in other fields last year.

Azerbaijan's liquids supply for **2024** is forecast to rise by about 20 tb/d to an average of 0.7 mb/d. Growth is forecast to come partly from the Shah Deniz, Absheron and Umid-Babek gas condensate projects. Production in Azerbaijan's ACG oil fields should also get a boost this year due to a seventh ACG platform.

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

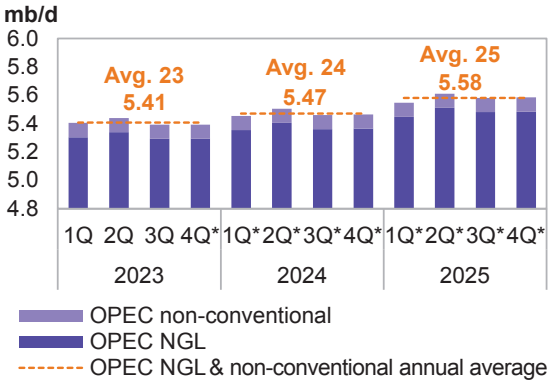
OPEC NGLs and non-conventional oils

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

Preliminary data shows NGL output in 4Q23 averaging 5.3 mb/d, while non-conventional output is estimated to remain steady at 0.1 mb/d. Taken together, 5.4 mb/d is estimated for November, according to preliminary data.

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

Graph 5 - 30: OPEC NGLs and non-conventional liquids quarterly production and forecast



*Note: * 4Q23-4Q25 = Forecast. Source: OPEC.*

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

Table 5 - 7: OPEC NGLs + non-conventional oils, mb/d

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

Note: 2023 = Estimate, 2024-2025 = Forecast.

Source: OPEC.

OPEC crude oil production

According to secondary sources, total **OPEC-12 crude oil production** averaged 26.70 mb/d in December 2023, higher by 73 tb/d, m-o-m. Crude oil output increased mainly in Nigeria and Iraq, while production in Kuwait, Saudi Arabia and IR Iran decreased.

Table 5 - 8: OPEC crude oil production based on *secondary sources*, tb/d

Secondary sources	2022	2023	2Q23	3Q23	4Q23	Oct 23	Nov 23	Dec 23	*Change* Dec/Nov
Algeria	1,017	977	979	953	962	965	963	959	*-4*
Congo	260	261	264	259	252	257	253	245	*-8*
Equatorial Guinea	84	56	59	59	54	56	51	55	*4*
Gabon	197	206	206	205	220	217	218	226	*7*
IR Iran	2,554	2,855	2,698	3,004	3,139	3,122	3,154	3,143	*-11*
Iraq	4,439	4,275	4,135	4,289	4,305	4,352	4,269	4,292	*23*
Kuwait	2,704	2,595	2,585	2,560	2,553	2,546	2,567	2,545	*-23*
Libya	981	1,164	1,168	1,160	1,171	1,157	1,180	1,177	*-3*
Nigeria	1,204	1,307	1,233	1,271	1,375	1,388	1,319	1,418	*100*
Saudi Arabia	10,531	9,613	10,150	8,993	8,972	8,994	8,968	8,956	*-12*
UAE	3,066	2,951	2,941	2,912	2,907	2,917	2,907	2,898	*-8*
Venezuela	688	749	755	767	775	760	779	786	*7*
Total OPEC	**27,725**	**27,009**	**27,174**	**26,432**	**26,686**	**26,728**	**26,628**	**26,700**	***73***

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

Source: OPEC.

Table 5 - 9: OPEC crude oil production based on *direct communication*, tb/d

Direct communication	2022	2023	2Q23	3Q23	4Q23	Oct 23	Nov 23	Dec 23	*Change* Dec/Nov
Algeria	1,020	973	971	951	958	961	960	954	*-6*
Congo	262	271	280	269	259	265	253	260	*7*
Equatorial Guinea	81	55	59	58	53	54	53	52	*-1*
Gabon	191	..	203	..	..	..	..	..	..
IR Iran	..	..	..	..	..	..	..	..	..
Iraq	4,453	4,117	3,959	4,101	4,123	4,189	4,093	4,086	*-7*
Kuwait	2,707	2,590	2,590	2,548	2,548	2,548	2,548	2,548	*0*
Libya	..	1,189	1,181	1,187	1,191	1,188	1,206	1,179	*-27*
Nigeria	1,138	1,234	1,144	1,201	1,313	1,351	1,250	1,335	*85*
Saudi Arabia	10,591	9,606	10,124	8,969	8,901	8,940	8,818	8,944	*126*
UAE	3,064	2,944	2,941	2,904	2,892	2,892	2,894	2,891	*-3*
Venezuela	716	783	808	797	796	786	801	802	*1*
Total OPEC	..	..	..	..	..	..	..	..	..

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

Source: OPEC.

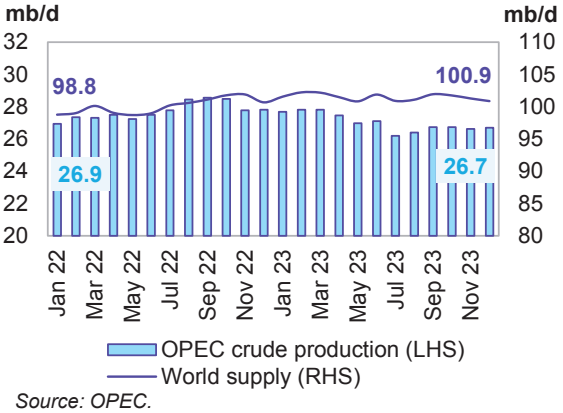
World oil supply

Preliminary data indicates that **global liquids production in December** decreased by 0.4 mb/d to average 100.9 mb/d compared with the previous month.

Non-OPEC liquids production (including OPEC NGLs) is estimated to have decreased by 0.5 mb/d, m-o-m, in December to average 74.2 mb/d. This is higher by 1.3 mb/d, y-o-y. Preliminary estimated production decreases in December were mainly seen in Russia and the US, which were partially offset by rises in Other Eurasia and Canada.

The **share of OPEC crude oil in total global production** in December, increased by 0.2 pp to stand at 26.5% compared with the previous month. Estimates are based on preliminary data for non-OPEC supply, OPEC NGLs and non-conventional oil, while assessments for OPEC crude production are based on secondary sources.

Graph 5 - 31: OPEC crude production and world oil supply development



Source: OPEC.

Commercial Stock Movements

Preliminary November 2023 data shows total OECD commercial oil stocks up by 7.3 mb, m-o-m. At 2,819 mb, they were 25 mb higher than the same time one year ago, but 62 mb lower than the latest five-year average and 122 mb below the 2015–2019 average. Within the components, crude stocks rose by 17.5 mb, while product stocks fell by 10.2 mb, m-o-m.

OECD commercial crude stocks stood at 1,354 mb in November. This was 1.1 mb lower than the same time a year ago, 45 mb below the latest five-year average, and 97 mb lower than the 2015–2019 average.

OECD total product stocks fell by 10.2 mb in November to stand at 1,466 mb. This is 27 mb above the same time a year ago, but 17 mb lower than the latest five-year average and 25 mb below the 2015–2019 average.

In terms of days of forward cover, OECD commercial stocks rose by 0.1 days, m-o-m, in November, to stand at 61.5 days. This is in line with the level in November 2022, but 1.7 days lower than the latest five-year average and 0.7 days less than the 2015–2019 average.

Preliminary data for December 2023 showed that total US commercial oil stocks fell by 18.2 mb, m-o-m, to stand at 1,251 mb. This is 28.5 mb, or 2.3%, higher than the same month in 2022, but 9.9 mb, or 0.8%, below the latest five-year average. Crude and product stocks fell by 14.0 mb and 4.2 mb, m-o-m, respectively.

OECD

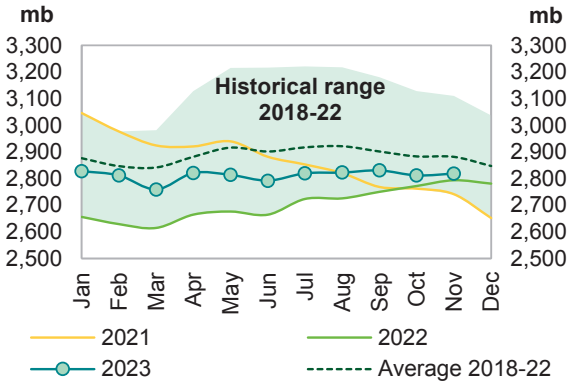
Preliminary November 2023 data shows **total OECD commercial oil stocks** up by 7.3 mb, m-o-m. At 2,819 mb, they were 25 mb higher than the same time one year ago, but 62 mb lower than the latest five-year average and 122 mb below the 2015–2019 average.

Within the components, crude stocks rose by 17.5 mb, while product stocks fell by 10.2 mb, m-o-m.

Within the OECD regions, total commercial oil stocks in November fell in OECD Europe, while they increased in OECD America and OECD Asia Pacific.

OECD commercial crude stocks stood at 1,354 mb in November. This was 1.1 mb lower than the same time a year ago, 45 mb below the latest five-year average, and 97 mb lower than the 2015–2019 average.

Graph 9 - 1: OECD commercial oil stocks



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

Within the OECD regions, OECD Americas and OECD Asia Pacific saw crude stock builds of 19.0 mb and 3.9 mb, m-o-m, respectively, while crude stocks in OECD Europe fell by 5.3 mb.

OECD total product stocks fell by 10.2 mb in November to stand at 1,466 mb. This is 27 mb above the same time a year ago, but 17 mb lower than the latest five-year average and 25 mb below the 2015–2019 average.

Within the OECD regions, product stocks in OECD Americas and OECD Asia Pacific witnessed a draw of 8.8 mb and 2.8 mb, respectively, m-o-m, while OECD Europe product stocks saw a build of 1.4 mb.

Table 9 - 1: OECD commercial stocks, mb

OECD stocks	Nov 22	Sep 23	Oct 23	Nov 23	*Change* Nov 23/Oct 23
Crude oil	1,355	1,325	1,336	1,354	*17.5*
Products	1,439	1,507	1,476	1,466	*-10.2*
Total	**2,794**	**2,831**	**2,812**	**2,819**	***7.3***
Days of forward cover	**61.5**	**61.6**	**61.4**	**61.5**	***0.1***

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

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

In terms of **days of forward cover**, OECD commercial stocks rose by 0.1 days, m-o-m, in November, to stand at 61.5 days. This is in line with the level in November 2022, though 1.7 days lower than the latest five-year average and 0.7 days less than the 2015–2019 average.

Within the OECD regions, OECD Americas stood at 0.6 days and OECD Europe 3.3 days below the latest five-year average, at 62.7 days and 69.4 days, respectively. OECD Asia Pacific was 2.6 days below the latest five-year average, standing at 44.9 days.

OECD Americas

OECD Americas' total commercial stocks rose by 10.2 mb, m-o-m, in November to settle at 1,544 mb. This is 53.4 mb higher than the same month in 2022 and 2.2 mb above the latest five-year average.

Commercial **crude oil stocks** in OECD Americas rose by 19.0 mb, m-o-m, in November to stand at 775 mb, which is 34.6 mb higher than in November 2022 and 3.6 mb above the latest five-year average.

By contrast**, total product stocks** in OECD Americas fell m-o-m by 8.8 mb in November to stand at 769 mb. This is 18.8 mb higher than the same month in 2022, but 1.4 mb below the latest five-year average. Higher consumption in the region was behind the product stock draw.

OECD Europe

OECD Europe's total commercial stocks fell by 4.0 mb, m-o-m, in November to settle at 915 mb. This is 14 mb lower than the same month in 2022, and 38 mb below the latest five-year average.

OECD Europe's **commercial crude stocks** fell by 5.3 mb, m-o-m, to end November at 398 mb. This is 27.4 mb less than one year ago and 24.8 mb lower than the latest five-year average.

By contrast, Europe's **total product stocks** rose by 1.4 mb, m-o-m, to end November at 518 mb. This is 13.2 mb above the same time a year ago, but 13.5 mb below the latest five-year average.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks rose by 1.0 mb, m-o-m, in November to stand at 360 mb. This is 13.8 mb lower than the same time a year ago and 26.3 mb below the latest five-year average.

OECD Asia Pacific's **crude stocks** rose by 3.9 mb, m-o-m, to end November at 181 mb. This is 8.4 mb lower than one year ago and 23.8 mb below the latest five-year average.

By contrast, OECD Asia Pacific's **total product stocks** fell by 2.8 mb, m-o-m, to end November at 179 mb. This is 5.4 mb lower than one year ago and 2.5 mb below the latest five-year average.

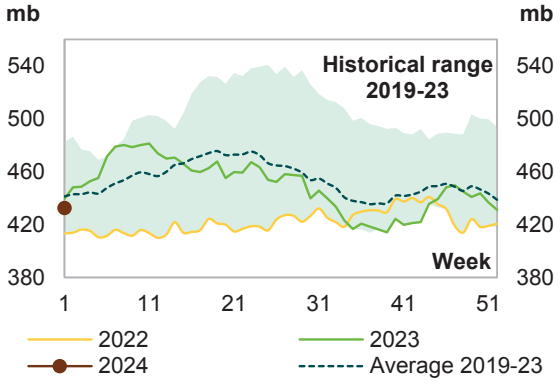
US

Preliminary data for **December 2023** shows that **total US commercial oil stocks** fell by 18.2 mb, m-o-m, to stand at 1,251 mb. This is 28.5 mb, or 2.3%, higher than the same month in 2022, but 9.9 mb, or 0.8%, below the latest five-year average. Crude and product stocks fell by 14.0 mb and 4.2 mb, m-o-m, respectively.

US commercial **crude stocks** in December stood at 431.1 mb. This is 1.0 mb, or 0.2%, higher than the same month in 2022, but 11.3 mb, or 2.6%, below the latest five-year average. The monthly drop in crude oil stocks came on the back of a 785 tb/d, m-o-m, increase in crude runs to 16.88 mb/d.

Total product stocks also fell in December to stand at 820.1 mb. This is 27.6 mb, or 3.5%, higher than December 2022 levels and 1.4 mb, or 0.2%, above the latest five-year average. The product stock draw can be attributed to higher product consumption.

Graph 9 - 2: US weekly commercial crude oil inventories



Sources: EIA and OPEC.

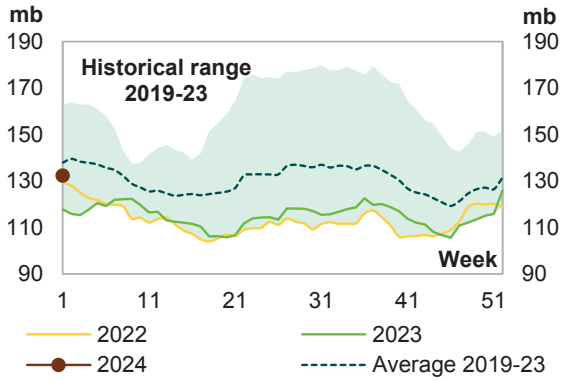
Gasoline stocks rose by 13.4 mb, m-o-m, in December to settle at 237.0 mb. This is 12.5 mb or 5.6%, higher than the same month in 2022, but 3.2 mb, or 1.3%, less than the latest five-year average.

Distillate stocks also increased by 13.8 mb, m-o-m, in December to stand at 125.9 mb. This is 7.0 mb, or 5.9%, higher than the same month in 2022, but 12.2 mb, or 8.8%, below the latest five-year average.

Jet fuel stocks rose by 1.7 mb, m-o-m, ending November at 39.7 mb. This is 4.7 mb, or 13.3%, higher than the same month in 2022 and 1.4 mb, or 3.6%, above the latest five-year average.

By contrast**, residual fuel oil stocks** fell by 1.4 mb, m-o-m, in December. At 24.7 mb, they were 6.0 mb, or 19.7%, lower than a year earlier and 4.4 mb, or 15.2%, below the latest five-year average.

Graph 9 - 3: US weekly distillate inventories



Sources: EIA and OPEC.

Table 9 - 2: US commercial petroleum stocks, mb

US stocks	Dec 22	Oct 23	Nov 23	Dec 23	Change Dec 23/Nov 23
Crude oil	**430.1**	**426.1**	**445.0**	**431.1**	***-14.0***
Gasoline	224.4	218.5	223.6	237.0	*13.4*
Distillate fuel	118.9	110.4	112.0	125.9	*13.8*
Residual fuel oil	30.7	27.5	26.1	24.7	*-1.4*
Jet fuel	35.0	39.5	38.0	39.7	*1.7*
Total products	**792.5**	**837.9**	**824.3**	**820.1**	***-4.2***
Total	**1,222.6**	**1,263.9**	**1,269.3**	**1,251.1**	***-18.2***
SPR	**372.0**	**351.3**	**351.9**	**354.4**	***2.5***

Sources: EIA and OPEC.

Japan

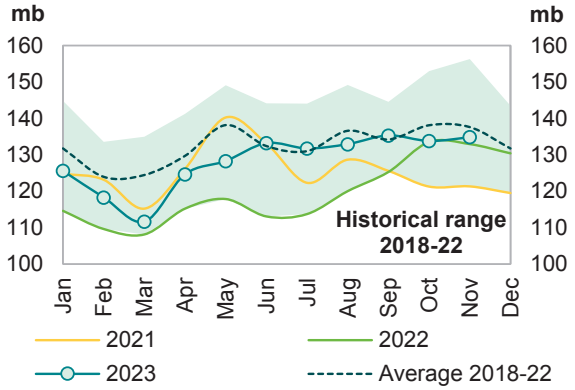
In **Japan**, **total commercial oil stocks** in **November** rose by 1.0 mb, m-o-m, to settle at 134.8 mb. This is 1.9 mb, or 1.4%, higher than the same month in 2022 but 2.8 mb, or 2.0%, below the latest five-year average. Crude stocks rose by 3.9 mb, m-o-m, while product stocks fell by 2.8 mb, m-o-m.

Japanese **commercial crude oil stocks** rose by 3.9 mb, m-o-m, in November to stand at 72.3 mb. This is 5.2 mb, or 7.7%, higher than the same month in 2022 and 1.0 mb, or 1.4%, above the latest five-year average. The build in crude stocks could be attributed to higher crude imports, as they increased in November by 284 tb/d, or 12.3%, to an average of 2.6 mb/d.

Gasoline stocks remained unchanged m-o-m to stand at 10.4 mb in November. This is 0.7 mb, or 6.4% lower than a year earlier, and 0.7 mb, or 6.6% lower than the latest five-year average.

Distillate stocks fell by 0.7 mb, m-o-m, to end November at 31.0 mb. This is 1.1 mb, or 3.3%, less than the same month in 2022 and 1.8 mb, or 5.6%, lower than the latest five-year average.

Graph 9 - 4: Japan's commercial oil stocks



Sources: METI and OPEC.

Within distillate components, jet fuel and gasoil stocks rose by 5.1% and 9.0%, respectively, while kerosene stocks fell by 8.7%.

Total residual fuel oil stocks also fell m-o-m by 0.7 mb to end November at 12.4 mb. This is 0.2 mb, or 1.7%, lower than the same month in 2022 and 0.4 mb, or 3.4%, below the latest five-year average. Within the components, fuel oil A and fuel oil B.C stocks fell by 4.9% and 5.5%, m-o-m, respectively.

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

Japan's stocks	Nov 22	Sep 23	Oct 23	Nov 23	Change Nov 23/Oct 23
Crude oil	**67.1**	**72.4**	**68.4**	**72.3**	***3.9***
Gasoline	11.1	10.0	10.4	10.4	*0.0*
Naphtha	10.0	9.0	10.1	8.7	*-1.4*
Middle distillates	32.1	30.5	31.8	31.0	*-0.7*
Residual fuel oil	12.6	13.4	13.0	12.4	*-0.7*
Total products	**65.8**	**63.0**	**65.4**	**62.5**	***-2.8***
Total**	**132.9**	**135.3**	**133.8**	**134.8**	***1.0***

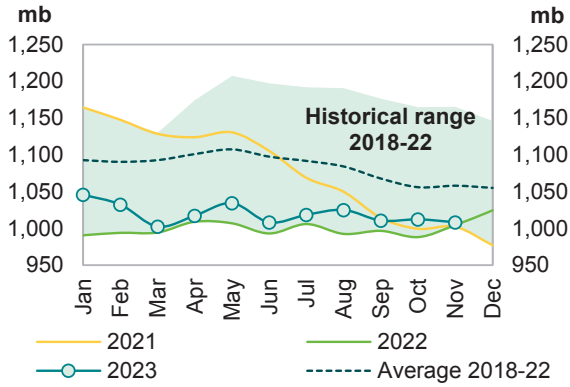
*Note: * At the end of the month. ** Includes crude oil and main products only.*
Sources: METI and OPEC.

EU-14 plus UK and Norway

Preliminary data for **November** showed that **total European commercial oil stocks** fell by 4.0 mb, m-o-m, to stand at 1,008 mb. At this level, they were 3.8 mb, or 0.4%, above the same month in 2022, but 49.9 mb, or 4.7%, lower than the latest five-year average. Crude stocks fell by 5.3 mb, while product stocks rose by 1.4 mb, m-o-m.

European **crude stocks** stood at 427.4 mb in November. This is 15.8 mb, or 3.6%, lower than the same month in 2022 and 32.6 mb, or 7.1%, below the latest five-year average. The build in crude oil stocks came on the back of lower refinery throughput in the EU-14, plus the UK and Norway, which fell by around 100 tb/d, m-o-m, to stand at 9.32 mb/d.

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



Sources: Argus, Euroilstock and OPEC.

By contrast, **total European product stocks** rose by 1.4 mb, m-o-m, to end November at 580.8 mb. This is 19.6 mb, or 3.5%, higher than the same month in 2022, but 17.3 mb, or 2.9%, below the latest five-year average. The build could be attributed to lower demand in the region.

Gasoline stocks rose by 0.5 mb, m-o-m, in November to stand at 106.7 mb, which is 0.8 mb, or 0.7%, higher than the same time in 2022, but 4.5 mb, or 4.0%, lower than the latest five-year average.

Residual fuel stocks also rose by 1.4 mb, m-o-m, in November to stand at 56.7 mb. This is 6.3 mb, or 10.0%, lower than the same month in 2022 and 5.6 mb, or 9.0%, below the latest five-year average.

Naphtha stocks were additionally up by 0.1 mb, m-o-m, in November, ending the month at 28.3 mb, which is 0.4 mb, or 1.6%, higher than the same time in 2022 and 1.0 mb, or 3.6%, higher than the latest five-year average.

By contrast, **middle distillate stocks** fell by 0.6 mb, m-o-m, in November to stand at 389.1 mb. This is 24.7 mb, or 6.8%, higher than the same month in 2022, but 8.1 mb, or 2.1%, lower than the latest five-year average.

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

EU stocks	Nov 22	Sep 23	Oct 23	Nov 23	Change Nov 23/Oct 23
Crude oil	**443.3**	**424.0**	**432.7**	**427.4**	***-5.3***
Gasoline	105.9	105.8	106.2	106.7	*0.5*
Naphtha	27.9	27.9	28.3	28.3	*0.1*
Middle distillates	364.4	395.5	389.7	389.1	*-0.6*
Fuel oils	63.0	57.3	55.3	56.7	*1.4*
Total products	**561.2**	**586.5**	**579.4**	**580.8**	***1.4***
Total	**1,004.5**	**1,010.5**	**1,012.2**	**1,008.2**	***-4.0***

Sources: Argus, Euroilstock and OPEC.

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

Singapore

In **November**, **total product stocks in Singapore** fell by 0.6 mb, m-o-m, to stand at 40.2 mb. This is 2.1 mb, or 4.9%, lower than the same month in 2022 and 4.6 mb, or 10.3%, below the latest five-year average.

Light distillate stocks fell by 0.3 mb, m-o-m, in November to stand at 11.8 mb. This is 2.8 mb, or 19.2%, lower than the same month in 2022 and 1.1 mb, or 8.3%, below the latest five-year average.

Middle distillate stocks also dropped by 0.3 mb, m-o-m, in November to stand at 9.0 mb. This is 1.2 mb, or 15.8%, higher than in November 2022, but 1.6 mb, or 15.5%, lower than the latest five-year average.

Meanwhile, **residual fuel oil stocks** remained unchanged, m-o-m, ending November at 19.4 mb. This is 0.5 mb, or 2.4%, lower than in November 2022 and 1.9 mb, or 8.9%, below the latest five-year average.

ARA

Total product stocks in ARA in November remained unchanged, m-o-m. At 40.1 mb, they were 0.6 mb, or 1.5%, below the same month in 2022, but in line with the latest five-year average.

Gasoline stocks fell by 1.1 mb, m-o-m, ending November at 11.1 mb. This is 0.3 mb, or 2.9%, lower than in November 2022, but 2.2 mb, or 25.1%, above the latest five-year average.

Gasoil stocks in November also fell by 0.2 mb, m-o-m, to stand at 13.0 mb. This is 0.1 mb, or 1.2%, higher than the same month in 2022, but 2.4 mb, or 15.7%, lower than the latest five-year average.

By contrast, **fuel oil stocks** increased by 0.7 mb, m-o-m, in November to stand at 8.2 mb, which is 1.6 mb, or 24.2%, higher than in November 2022, and 1.1 mb, or 16.1%, above the latest five-year average.

Jet oil stocks also rose by 0.4 mb, m-o-m, to stand at 5.8 mb. This is 1.1 mb, or 16.0%, lower than in November 2022 and 0.5 mb, or 7.7%, below the latest five-year average.

Fujairah

During the week ending 8 January 2024, **total oil product stocks in Fujairah** fell by 0.97 mb, w-o-w, to stand at 18.24 mb, according to data from FEDCom and S&P Global Commodity Insights. At this level, total oil stocks were 1.6 mb lower than at the same time a year ago.

Light distillate stocks fell by 0.43 mb, w-o-w, to stand at 6.83 mb, which is 0.19 mb lower than a year ago.

Heavy distillate stocks also fell by 1.34 mb, w-o-w, to stand at 8.61 mb, which is 1.45 mb below the same period a year ago.

By contrast, **middle distillate stocks** rose w-o-w, increasing by 0.81 mb to stand at 2.80 mb, which is 0.04 mb higher than the same time last year.

Balance of Supply and Demand

Demand for OPEC crude in 2023 stood at 27.6 mb/d. This is around 0.3 mb/d higher than in 2022.

According to secondary sources, OPEC crude production in 1Q23 averaged 27.8 mb/d, which is 0.7 mb/d higher than demand for OPEC crude. In 2Q23, OPEC crude production averaged 27.2 mb/d, which is 0.4 mb/d lower than demand for OPEC crude. OPEC crude production in 3Q23 averaged 26.4 mb/d, which is 0.9 mb/d lower than demand for OPEC crude. In 4Q23, OPEC crude production averaged 26.7 mb/d, which is 1.9 mb/d lower than demand for OPEC crude. For the whole year of 2023, OPEC crude production averaged 27.0 mb/d, which is 0.6 mb/d lower than demand for OPEC crude.

Demand for OPEC crude in 2024 is forecast to stand at 28.5 mb/d, which is 0.8 mb/d higher than the estimated level in 2023.

Based on an initial forecast for global demand, total non-OPEC supply and OPEC NGLs, demand for OPEC crude in 2025 is forecast to stand at 29.0 mb/d, which is 0.5 mb/d higher than the forecast level in 2024.

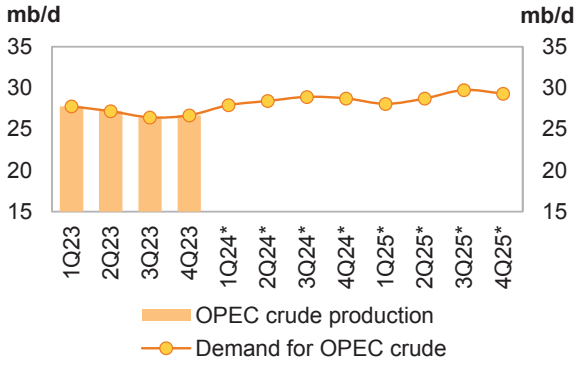
Balance of supply and demand in 2023

Demand for OPEC crude in 2023 stood at 27.6 mb/d. This is around 0.3 mb/d higher than in 2022.

Compared with the same quarters in 2022, demand for OPEC crude in 2Q23, 3Q23 and 4Q23 is estimated to be higher by 0.5 mb/d, 0.3 mb/d and 1.0 mb/d respectively, while demand for OPEC crude in 1Q23 is estimated to be down by 0.5 mb/d.

According to secondary sources, OPEC crude production averaged 27.8 mb/d in 1Q23, which is 0.7 mb/d higher than demand for OPEC crude. In 2Q23, OPEC production averaged 27.2 mb/d, which is 0.4 mb/d lower than demand for OPEC crude. In 3Q23, OPEC production averaged 26.4 mb/d, which is 0.9 mb/d lower than demand for OPEC crude. In 4Q23, OPEC production averaged 26.7 mb/d, which is 1.9 mb/d lower than demand for OPEC crude. For the whole year of 2023, OPEC production averaged 27.0 mb/d, which is 0.6 mb/d lower than demand for OPEC crude.

Graph 10 - 1: Balance of supply and demand, 2023–2025*



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

Table 10 - 1: Supply/demand balance for 2023*, mb/d

	2022	1Q23	2Q23	3Q23	4Q23	2023	Change 2023/22
(a) World oil demand	**99.66**	**101.30**	**101.75**	**102.21**	**103.18**	**102.11**	***2.46***
Non-OPEC liquids production	66.98	68.79	68.76	69.46	69.21	69.06	*2.08*
OPEC NGL and non-conventionals	5.36	5.40	5.44	5.39	5.39	5.41	*0.05*
(b) Total non-OPEC liquids production and OPEC NGLs	**72.34**	**74.20**	**74.20**	**74.86**	**74.61**	**74.47**	***2.12***
Difference (a-b)	**27.31**	**27.10**	**27.55**	**27.35**	**28.58**	**27.65**	***0.34***
OPEC crude oil production	**27.73**	**27.76**	**27.17**	**26.43**	**26.69**	**27.01**	***-0.72***
Balance	**0.41**	**0.66**	**-0.37**	**-0.92**	**-1.89**	**-0.64**	***-1.05***

*Note: * 2023 = Estimate. Totals may not add up due to independent rounding.*
Source: OPEC.

Balance of supply and demand in 2024

Demand for OPEC crude in 2024 is forecast to stand at 28.5 mb/d, which is 0.8 mb/d higher than the estimated level in 2023.

Compared with the same quarters in 2023, demand for OPEC crude in 1Q24 and 2Q24 is forecast to be 0.8 mb/d and 0.9 mb/d higher. The demand for OPEC crude in 3Q24 and 4Q24 is expected to be 1.6 mb/d and 0.1 mb/d higher.

Table 10 - 2: Supply/demand balance for 2024*, mb/d

							Change
	2023	1Q24	2Q24	3Q24	4Q24	2024	2024/23
(a) World oil demand	**102.11**	**103.32**	**103.92**	**104.89**	**105.29**	**104.36**	***2.25***
Non-OPEC liquids production	69.06	69.96	70.00	70.52	71.10	70.40	*1.34*
OPEC NGL and non-conventionals	5.41	5.45	5.50	5.46	5.46	5.47	*0.06*
(b) Total non-OPEC liquids production and OPEC NGLs	**74.47**	**75.42**	**75.50**	**75.98**	**76.56**	**75.87**	***1.40***
Difference (a-b)	**27.65**	**27.91**	**28.41**	**28.91**	**28.72**	**28.49**	***0.84***

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

Source: OPEC.

Balance of supply and demand in 2025

Based on an initial forecast for global demand, total non-OPEC supply and OPEC NGLs, **demand for OPEC crude in 2025** is forecast to stand at 29.0 mb/d, which is 0.5 mb/d higher than the forecast level in 2024.

Compared with the same quarters in 2024, demand for OPEC crude in 1Q25 and 2Q25 is forecast to be 0.2 mb/d and 0.3 mb/d higher, respectively. The demand for OPEC crude in 3Q25 and 4Q25 is expected to be 0.8 mb/d and 0.6 mb/d higher.

Table 10 - 3: Supply/demand balance for 2025*, mb/d

							Change
	2024	1Q25	2Q25	3Q25	4Q25	2025	2025/24
(a) World oil demand	**104.36**	**105.15**	**105.65**	**106.95**	**107.05**	**106.21**	***1.85***
Non-OPEC liquids production	70.40	71.54	71.34	71.63	72.16	71.67	*1.27*
OPEC NGL and non-conventionals	5.47	5.55	5.61	5.58	5.58	5.58	*0.11*
(b) Total non-OPEC liquids production and OPEC NGLs	**75.87**	**77.09**	**76.95**	**77.21**	**77.74**	**77.25**	***1.38***
Difference (a-b)	**28.49**	**28.07**	**28.71**	**29.74**	**29.30**	**28.96**	***0.47***

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

Source: OPEC.

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

World oil demand and supply balance	2021	2022	2023	1Q24	2Q24	3Q24	4Q24	2024	1Q25	2Q25	3Q25	4Q25	2025
World demand													
Americas	24.28	24.79	24.99	24.65	25.35	25.56	25.09	25.17	24.71	25.40	25.68	25.17	25.24
of which US	*20.03*	*20.16*	*20.27*	*20.06*	*20.64*	*20.64*	*20.29*	*20.41*	*20.09*	*20.67*	*20.70*	*20.34*	*20.45*
Europe	13.19	13.51	13.42	13.16	13.60	13.69	13.43	13.47	13.18	13.61	13.71	13.44	13.49
Asia Pacific	7.34	7.38	7.37	7.84	6.97	7.09	7.65	7.39	7.85	6.98	7.10	7.66	7.40
Total OECD	**44.81**	**45.68**	**45.77**	**45.64**	**45.93**	**46.34**	**46.17**	**46.02**	**45.73**	**46.00**	**46.50**	**46.28**	**46.13**
China	15.10	14.95	16.15	16.13	16.77	17.09	17.14	16.78	16.56	17.15	17.53	17.53	17.19
India	4.77	5.14	5.34	5.63	5.64	5.40	5.59	5.56	5.85	5.88	5.61	5.82	5.79
Other Asia	8.67	9.07	9.28	9.61	9.74	9.49	9.51	9.59	9.90	10.07	9.82	9.81	9.90
Latin America	6.25	6.44	6.68	6.79	6.88	6.97	6.84	6.87	6.99	7.07	7.19	7.04	7.07
Middle East	7.79	8.30	8.63	8.91	8.76	9.38	9.00	9.01	9.29	9.10	9.84	9.35	9.40
Africa	4.22	4.40	4.46	4.65	4.37	4.39	4.82	4.56	4.77	4.47	4.52	4.93	4.67
Russia	3.62	3.75	3.84	3.89	3.80	3.99	4.08	3.94	3.95	3.85	4.05	4.12	3.99
Other Eurasia	1.21	1.15	1.17	1.27	1.24	1.08	1.28	1.22	1.30	1.27	1.12	1.31	1.25
Other Europe	0.75	0.77	0.79	0.81	0.78	0.77	0.84	0.80	0.82	0.79	0.78	0.85	0.81
Total Non-OECD	**52.38**	**53.98**	**56.35**	**57.68**	**57.99**	**58.55**	**59.11**	**58.34**	**59.42**	**59.66**	**60.45**	**60.76**	**60.08**
(a) Total world demand	**97.19**	**99.66**	**102.11**	**103.32**	**103.92**	**104.89**	**105.29**	**104.36**	**105.15**	**105.65**	**106.95**	**107.05**	**106.21**
Y-o-y change	***5.94***	***2.46***	***2.46***	***2.03***	***2.17***	***2.68***	***2.10***	***2.25***	***1.83***	***1.74***	***2.06***	***1.76***	***1.85***
Non-OPEC liquids production													
Americas	25.46	26.91	28.50	28.96	29.00	29.47	29.78	29.30	29.82	29.72	30.09	30.38	30.00
of which US	*18.06*	*19.28*	*20.76*	*21.02*	*21.24*	*21.51*	*21.67*	*21.36*	*21.72*	*21.87*	*22.07*	*22.19*	*21.96*
Europe	3.79	3.58	3.63	3.84	3.72	3.67	3.81	3.76	3.94	3.81	3.79	3.90	3.86
Asia Pacific	0.51	0.48	0.45	0.46	0.43	0.44	0.42	0.44	0.43	0.42	0.43	0.43	0.43
Total OECD	**29.77**	**30.97**	**32.58**	**33.25**	**33.15**	**33.57**	**34.01**	**33.50**	**34.18**	**33.95**	**34.31**	**34.71**	**34.29**
China	4.32	4.48	4.57	4.59	4.58	4.55	4.55	4.57	4.61	4.59	4.55	4.55	4.57
India	0.78	0.77	0.77	0.79	0.79	0.79	0.78	0.79	0.78	0.79	0.80	0.80	0.80
Other Asia	2.42	2.30	2.27	2.25	2.23	2.21	2.21	2.22	2.21	2.17	2.14	2.14	2.16
Latin America	5.96	6.34	6.93	7.14	7.17	7.29	7.37	7.24	7.44	7.47	7.54	7.60	7.51
Middle East	3.19	3.29	3.27	3.28	3.31	3.30	3.31	3.30	3.32	3.35	3.34	3.34	3.34
Africa	2.50	2.46	2.40	2.36	2.36	2.40	2.43	2.39	2.41	2.40	2.40	2.40	2.40
Russia	10.80	11.03	10.78	10.74	10.78	10.79	10.79	10.77	10.81	10.80	10.79	10.82	10.81
Other Eurasia	2.93	2.83	2.92	2.93	3.01	2.99	3.03	2.99	3.09	3.13	3.07	3.11	3.10
Other Europe	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Total Non-OECD	**33.01**	**33.61**	**34.01**	**34.19**	**34.33**	**34.43**	**34.57**	**34.38**	**34.77**	**34.81**	**34.74**	**34.87**	**34.80**
Total Non-OPEC production	62.77	64.59	66.59	67.44	67.48	68.00	68.58	67.88	68.96	68.76	69.05	69.58	69.09
Processing gains	2.29	2.40	2.47	2.52	2.52	2.52	2.52	2.52	2.58	2.58	2.58	2.58	2.58
Total Non-OPEC liquids production	**65.06**	**66.98**	**69.06**	**69.96**	**70.00**	**70.52**	**71.10**	**70.40**	**71.54**	**71.34**	**71.63**	**72.16**	**71.67**
OPEC NGL + non-conventional oils	5.25	5.36	5.41	5.45	5.50	5.46	5.46	5.47	5.55	5.61	5.58	5.58	5.58
(b) Total non-OPEC liquids production and OPEC NGLs	**70.31**	**72.34**	**74.47**	**75.42**	**75.50**	**75.98**	**76.56**	**75.87**	**77.09**	**76.95**	**77.21**	**77.74**	**77.25**
Y-o-y change	***0.76***	***2.04***	***2.12***	***1.22***	***1.31***	***1.12***	***1.96***	***1.40***	***1.67***	***1.44***	***1.23***	***1.18***	***1.38***
OPEC crude oil production (secondary sources)	25.22	27.73	27.01										
Total liquids production	95.53	100.07	101.48										
Balance (stock change and miscellaneous)	-1.66	0.41	-0.64										
OECD closing stock levels, *mb*													
Commercial	2,652	2,781											
SPR	1,484	1,214											
Total	**4,136**	**3,995**											
Oil-on-water	1,202	1,399											
Days of forward consumption in OECD, *days*													
Commercial onland stocks	58	61											
SPR	32	27											
Total	**91**	**87**											
Memo items													
(a) - (b)	**26.89**	**27.31**	**27.65**	**27.91**	**28.41**	**28.91**	**28.72**	**28.49**	**28.07**	**28.71**	**29.74**	**29.30**	**28.96**

Note: Non-OPEC supply includes Angola.

Totals may not add up due to independent rounding.

Source: OPEC.

https://www.iea.org/reports/oil-market-report-january-2024

Oil Market Report - January 2024

Highlights

- Global oil demand growth slowed to 1.7 mb/d y-o-y in 4Q23 – well below the 3.2 mb/d rate registered during 2Q23-3Q23, mirroring the unwinding of China's post-pandemic release of travel demand. Growth is projected to ease from 2.3 mb/d in 2023 to 1.2 mb/d in 2024, as macroeconomic headwinds, tighter efficiency standards and an expanding EV fleet compound the baseline effect.
- World oil supply is forecast to rise by 1.5 mb/d to a new high of 103.5 mb/d, fuelled by record-setting output from the US, Brazil, Guyana and Canada. Non-OPEC+ production will dominate growth this year, accounting for close to 1.5 mb/d. By contrast, OPEC+ supply is expected to hold broadly steady on last year, assuming extra voluntary cuts that started this month are phased out gradually in 2Q24.
- Divergence in regional refinery profitability narrowed further in December as margins in the Atlantic Basin weakened but strengthened in Singapore. Refinery crude throughputs are forecast to average 83.3 mb/d in 2024, overtaking 2018's record of 82.5 mb/d. However, the disparity between OECD and non-OECD runs will continue to widen, as new capacity starts in the Middle East, Africa, and China.
- Russian oil exports rose by 500 kb/d to a nine-month high of 7.8 mb/d in December. Crude shipments were up by 240 kb/d m-o-m to 5 mb/d while product flows rose by 260 kb/d. At the same time, estimated export revenues slumped to a six-month low of $14.4 billion, as Russian oil price discounts increased and benchmark oil prices declined.
- Global observed oil inventories were down by 8.4 mb in November, to their lowest since July 2022, with crude oil and middle distillates particularly tight. A decline in oil on water (-12 mb) was partially offset by on-land stock builds (+3.6 mb). Oil products decreased by a substantial 24.6 mb, while crude oil rose by 16.2 mb. Preliminary data suggest that global inventories rose in December, as oil on water surged.
- Benchmark crude oil futures recovered by around $4/bbl from their mid-December lows as tensions in the Red Sea reignited geopolitical concerns. Prices declined last month amid comfortable physical balances, with record US oil supply making its way into the Atlantic Basin. Fund exchange positioning slumped to its most bearish level in years. At the time of writing, Brent futures were trading at $77/bbl.

Choppy waters

Rising geopolitical tensions in the Middle East, which accounts for one-third of the world's seaborne oil trade, has markets on edge at the start of 2024. US and UK airstrikes on Houthi targets in Yemen in response to attacks on tankers in the Red Sea by the Iran-backed group, have raised concerns that an escalation of the conflict could further disrupt the flow of oil via key trade chokepoints. While oil and LNG production have not been impacted, a rising number of ship owners are diverting cargoes away from the Red Sea. At the time of writing, Brent futures were just above $77/bbl and WTI around $72/bbl.

Barring significant disruptions to oil flows, the market looks reasonably well supplied in 2024, with higher-than-expected non-OPEC+ production increases set to outpace oil demand growth by a healthy margin. While OPEC+ supply management policies may tip the oil market into a small deficit at the start of the year, strong growth from non-OPEC+ producers could lead to a substantial surplus if the OPEC+ group's extra voluntary cuts are unwound in 2Q24.

Global oil supply is forecast to rise by 1.5 mb/d to a new high of 103.5 mb/d in 2024. The Americas – led by the United States, Brazil, Guyana and Canada – will dominate gains in 2024, just as the region did last year. After a steep rise in output in 4Q23, global oil supply is expected to decline this month as a blast of cold weather sweeping through the United States and Canada takes a toll on oil operations.

Increases in global oil demand are set to halve from 2.3 mb/d in 2023 to 1.2 mb/d this year, with the post-Covid recovery all but complete, GDP growth below trend in major economies, and as energy efficiency improvements and electrification of the vehicle fleet curb oil use. Over the course of 2023, the pace of demand growth outside of China slowed significantly, to around 300 kb/d on average during 2H23. China will continue to lead oil demand growth in 2024, with its expanding petrochemical sector gaining an ever-larger share.

At the start of 2024, the risk of global oil supply disruptions from the Middle East conflict remains elevated, particularly for oil flows via the Red Sea and, crucially, the Suez Canal. In 2023, roughly 10% of the world's seaborne oil trade, or around 7.2 mb/d of crude and oil products, and 8% of global LNG trade passed through this major trade route. The main alternative shipping route around Africa's Cape of Good Hope extends voyages by up to two weeks – adding pressure on global supply chains and boosting freight and insurance costs.

As always, the IEA stands ready to respond decisively if there is a supply disruption and the global oil market requires additional barrels. IEA member countries collectively hold stocks of around 4 billion barrels, including 1.2 billion barrels of government-controlled stocks held exclusively in case of an emergency. That buffer should help assuage market jitters and angst among governments, industries and energy consumers.

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

2024-01-18 09:00:00.0 GMT

By Kristian Siedenburg

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

	4Q 2024	3Q 2024	2Q 2024	1Q 2024	4Q 2023	3Q 2023	2Q 2023	1Q 2023	2024	2023
					Demand					
Total Demand	103.8	103.7	102.7	101.7	102.0	102.9	101.8	100.2	103.0	101.7
Total OECD	45.9	45.6	45.5	45.4	45.9	46.0	45.7	45.4	45.6	45.7
Americas	24.9	25.2	25.1	24.6	25.0	25.3	25.2	24.5	24.9	25.0
Europe	13.3	13.4	13.4	13.1	13.4	13.6	13.5	13.1	13.3	13.4
Asia Oceania	7.7	7.0	7.0	7.7	7.5	7.1	7.0	7.8	7.3	7.3
Non-OECD countries	57.9	58.0	57.3	56.3	56.1	56.8	56.1	54.9	57.4	56.0
FSU	5.0	5.0	4.8	4.8	4.9	5.0	4.9	4.9	4.9	4.9
Europe	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
China	17.2	17.5	17.0	16.7	16.5	16.9	16.6	15.6	17.1	16.4
Other Asia	15.0	14.4	14.8	14.8	14.6	14.1	14.5	14.4	14.7	14.4
Americas	6.5	6.5	6.4	6.3	6.4	6.5	6.3	6.2	6.4	6.3
Middle East	8.9	9.5	9.0	8.7	8.7	9.4	8.8	8.7	9.0	8.9
Africa	4.4	4.3	4.3	4.3	4.3	4.2	4.3	4.3	4.4	4.2
					Supply					
Total Supply	n/a	n/a	n/a	n/a	102.5	101.9	101.8	101.8	n/a	102.0
Non-OPEC	70.8	70.8	70.4	69.5	70.0	69.6	68.6	68.1	70.4	69.1
Total OECD	32.3	31.9	31.7	31.5	31.7	31.2	30.5	30.4	31.8	31.0
Americas	28.6	28.3	28.1	27.8	28.1	27.7	26.9	26.7	28.2	27.3
Europe	3.2	3.1	3.1	3.2	3.2	3.0	3.2	3.3	3.2	3.2
Asia Oceania	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5
Non-OECD	32.9	32.8	32.9	32.8	32.7	32.4	32.4	32.7	32.8	32.6
FSU	13.8	13.7	13.7	13.6	13.8	13.6	13.8	14.1	13.7	13.8
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.3	4.4	4.3	4.2	4.2	4.3	4.3	4.3	4.3
Other Asia	2.5	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.7
Americas	6.7	6.6	6.6	6.6	6.5	6.3	6.0	6.0	6.6	6.2
Middle East	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Africa	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.3	2.4	2.4
Processing Gains	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.4
Total OPEC	n/a	n/a	n/a	n/a	32.5	32.4	33.2	33.8	n/a	33.0
Crude	n/a	n/a	n/a	n/a	27.0	26.9	27.8	28.3	n/a	27.5
Natural gas liquids NGLs	5.6	5.6	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.5
Call on OPEC crude and stock change *	27.3	27.3	26.8	26.7	26.5	27.8	27.8	26.7	27.0	27.2

NOTE: Figures are in million of barrels per day. (*) equals total demand minus non-OPEC supply and OPEC natural gas liquids.

IEA changed the way it measures OPEC supply, adopting the industry-standard approach of counting most of Venezuela's Orinoco heavy oil as "crude oil."

SOURCE: International Energy Agency

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Mark Evans

IEA: December Crude Oil Production in OPEC Countries (Table)
2024-01-18 09:00:00.2 GMT
By Kristian Siedenburg
(Bloomberg) -- Following is a summary of oil production in OPEC countries from the International Energy Agency in Paris:

	Dec. 2023	Nov. 2023	Dec. MoM
Total OPEC	27.02	26.97	0.05
Total OPEC9	21.89	21.79	0.10
Algeria	0.95	0.96	-0.01
Congo	0.26	0.25	0.01
Equatorial Guinea	0.05	0.05	0.00
Gabon	0.22	0.23	-0.01
Iraq	4.33	4.29	0.04
Kuwait	2.55	2.60	-0.05
Nigeria	1.35	1.25	0.10
Saudi Arabia	8.95	8.92	0.03
UAE	3.23	3.24	-0.01
Iran	3.15	3.21	-0.06
Libya	1.18	1.17	0.01
Venezuela	0.80	0.80	0.00

*T
NOTE: Figures are in million of barrels per day. Monthly level change calculated by Bloomberg. Production data excludes condensates.
OPEC9 excludes Iran, Libya and Venezuela.
SOURCE: International Energy Agency

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IEA REPORT WRAP: Oil Market 'Reasonably Well Supplied'; Red Sea
2024-01-18 09:57:37.608 GMT
By Rachel Graham
(Bloomberg) -- The following stories were published Thursday from the IEA's monthly Oil Market Report:
* Oil Markets Look "Reasonably Well Supplied" in 2024
** Supplies outside OPEC+ will grow faster than global demand
** Inventories may grow from second quarter to year's end

DEMAND/SUPPLY:

* 2024 oil demand growth forecast at 1.2m b/d vs 2.3m last year
** 2024 oil demand seen by IEA at almost 103m b/d
** IEA raises 2024 demand growth estimate by 180k b/d
* 2024 oil supply to rise by 1.5m b/d to record 103.5m
** 2024 Non-OPEC supply will increase faster than demand
* Click here for table showing revisions to supply/demand forecasts
* Click here for table showing supply and demand forecasts by quarter and by region
* READ: OPEC Crude Output Rose 50k B/D Last Month on Nigeria Supply
** Click here for OPEC December output table
* US NGL Output Growth Set to Slow This Year

RED SEA:
* The IEA said it "stands ready to respond decisively if there is a supply disruption and the global oil market requires additional barrels"
* Oil flows via Suez may be two-thirds lower by end of January
* READ: Red Sea Tension Risks Raising European Diesel, Jet Prices
* READ: Red Sea Tensions Plus Higher Demand Buoy West Africa Crudes

RUSSIA:
* Russia's crude and product exports rose by 500k b/d to nine-month high at 7.8m b/d in December
** Crude shipments were up by 240k b/d m/m to 5m while product flows rose by 260k b/d
* READ: Russia's Oil-Export Revenue at Six-Month Low as Price Falls

REFINING/OTHER:
* Global crude throughput is set for record 83.3m b/d in 2024
* READ: Middle East Is Set to Lead Growth in Crude Runs in 2024

Middle East, China and Africa Are Set to Boost Crude Runs in 2024
Crude throughput will decline in OECD nations

	2019	2020	2021	2022	2023	2024
OECD Americas	19.1m b/d	16.6	17.7	18.7	18.7	18.5
OECD Europe	12.2	10.7	11.0	11.5	11.4	11.3
OECD Asia	6.8	5.9	5.8	6.1	5.9	5.8
China	13.4	13.7	14.4	13.7	15.0	15.4
Other Asia	10.4	9.3	9.7	10.2	10.5	10.7
FSU	6.9	6.5	6.8	6.5	6.6	6.6
Middle East	7.9	7.1	7.8	8.3	8.5	9.2
Africa	2.0	1.9	1.8	1.8	1.6	1.9

Source: IEA
Bloomberg

* READ: E-Fuels Could Compete With Biomass Biofuels by 2030
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Oil Markets Look 'Reasonably Well Supplied' in 2024, IEA Says
2024-01-18 09:00:00.6 GMT
By Grant Smith
(Bloomberg) -- Global oil markets are likely to remain "reasonably well-supplied" this year, provided there are no major disruptions, as production outside OPEC+ climbs, the International Energy Agency said.
The Paris-based IEA, which advises major economies, bolstered forecasts for supply growth outside the cartel by roughly 25% to 1.5 million barrels a day, thanks to gains in the US, Canada, Brazil and Guyana.
With world oil demand growth set to decelerate significantly, markets may face a supply surplus from next quarter through to the end of the year, the IEA said in its monthly report on Thursday. It's a sharp contrast to the outlook published by OPEC the previous day.
"Barring significant disruptions to oil flows, the market looks reasonably well supplied in 2024, with higher-than-expected non-OPEC+ production increases set to outpace oil demand growth by a healthy margin," it said.
Oil prices have largely stagnated this year, trading below $80 a barrel even as ongoing conflict in the Middle East and attacks on shipping in the Red Sea menace exports from a critical region. Prices were supported on Thursday after the US launched another round of strikes on Yemen's Houthis.
Crude futures have also mostly shrugged off additional output cuts by the Organization of Petroleum Exporting Countries and its allies.
The 22-nation OPEC+ coalition, led by Saudi Arabia and Russia, would need to extend the latest curbs — which amount to roughly 900,000 barrels a day — beyond their scheduled expiry in March to prevent global inventories from piling up through the year, the agency said.
In a further blow to oil bulls, IEA now believes that world oil inventories increased during the fourth quarter of last year, instead of the contraction previously expected.

The agency sees world fuel consumption growth slowing almost 50% this year to 1.2 million barrels a day — averaging a record 103 million a day — amid "macroeconomic headwinds" and the growing popularity of electric vehicles.
In contrast, the outlook released by OPEC's Vienna-based secretariat on Wednesday projects almost double the rate of oil demand growth this year, and a market deficit through to the end of 2025. Secretary-General Haitham Al-Ghais said there's no peak for oil consumption on the horizon.
The IEA cautioned that there remains "elevated" risk of disruption to oil shipments via the Suez Canal, through which flows approximately 7.2 million barrels a day of crude oil and refined fuels, or about 10% of world seaborne petroleum trade.
The agency, which co-ordinates the deployment of emergency stockpiles by consumer nations, said it "stands ready to respond decisively if there is a supply disruption and the global oil market requires additional barrels."

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IEA World Oil Supply/Demand Key Forecasts
2024-01-18 09:00:00.3 GMT
By Kristian Siedenburg
(Bloomberg) -- World oil demand 2024 forecast was revised to 103.0m b/d from 102.8m b/d in Paris-based Intl Energy Agency's latest monthly report.
* 2023 world demand was unrevised at 101.7m b/d
* Demand change in 2024 est. 1.2% y/y or 1.24m b/d
* Non-OPEC supply 2024 was revised to 70.4m b/d from 69.0m b/d
* Call on OPEC crude 2024 was revised to 27.0m b/d from 28.2m b/d
* Call on OPEC crude 2023 was revised to 27.2 m b/d from 28.4m b/d
** OPEC crude production in Dec. rose by 50k b/d on the month to 27.0m b/d
* Detailed table: FIFW NSN S7G5ZGGQD79C <GO>
* NOTE: Fcasts based off IEA's table providing one decimal point

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OPEC Crude Output Rose 50k B/D Last Month on Nigeria Supply: IEA
2024-01-18 09:00:00.8 GMT
By Amanda Jordan
(Bloomberg) -- OPEC's December crude output rose by 50k b/d from a month earlier to 27.02m b/d as higher flows from Nigeria, Iraq and Saudi Arabia countered losses in Iran and elsewhere, the IEA said in its monthly market report.
* Output in Nigeria advanced 100k b/d to 1.35m b/d
** Elsewhere in Africa, Libyan production edged up to 1.18m b/d, while Algerian output slid to 950k b/d
* Iraqi production rose 40k b/d to 4.33m b/d
* Saudi supply climbed 30k b/d to just below 9m b/d
* Iranian volumes slipped 60k b/d to 3.15m b/d
* UAE output inched down to 3.23m b/d, above its implied quota
* Kuwaiti production fell 50k b/d to 2.55m b/d
* Venezuelan supply was unchanged at 800k b/d
* NOTE: OPEC released its own figures for December on Wednesday, estimating its 12 members pumped 26.7m b/d

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US NGL Output Growth Set to Drop by 40% This Year: IEA
2024-01-18 09:00:00.10 GMT
By Jack Wittels
(Bloomberg) -- Growth in US output of natural gas liquids is expected to fall to 290k b/d In 2024, the IEA said in its monthly Oil Market Report.
* Compares with growth of 480k b/d in 2023
** That's a drop of 40%
* Last year, a little under half of US NGL output growth was

ethane, and 25% was propane
** Ethane and propane make up 75% of this year's output growth
* Last year's US NGL supply was made up of 41% ethane, 31% propane, 16% butane and 12% pentanes
* "In addition to a growing US petrochemical industry, the country's exports of ethane and LPG have increased by 930k b/d since 2019, according to Kpler data, with close to three-quarters being directed to China"

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Red Sea Tension Risks Raising European Diesel, Jet Prices: IEA
2024-01-18 09:00:00.4 GMT
By Sherry Su
(Bloomberg) -- "A prolonged rerouting of commodity flows could affect European oil product prices," with diesel and jet likely to rise, while naphtha and fuel oil to be depressed, the IEA said in its monthly Oil Market Report.
* Oil trade flows via the Suez Canal could be almost two-thirds lower by end-January if the crisis in Red Sea continues
* A re-route around Africa's Cape of Good Hope will add up to two weeks to voyage times, raises risk for supply chain bottlenecks, higher freight costs, renewed inflationary pressure
* For European oil products, export prices reflect those in Asia, minus the cost of shipping, which would rise due to extended voyages; import prices reflect those in Asia plus shipping costs
** "Naphtha and fuel oil export prices would be depressed while diesel and jet fuel import costs would rise"
* "The Mediterranean markets could be heavily affected by the increase in shipping delays as Middle East crude swings from the Red Sea to the long-haul Cape route"
* Last year, 2.4m b/d of crude — or about 6% of the global seaborne trade — flowed east through the Suez Canal
** 1.7m b/d of oil products, also 6% of global product trade, flowed east on the same route

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Red Sea Tensions Plus Higher Demand Buoy West Africa Crudes: IEA
2024-01-18 09:00:00.22 GMT
By Bill Lehane
(Bloomberg) -- West African crudes strengthened last month due to increased demand from Asia coupled with Red Sea tensions, the IEA said in its monthly Oil Market report.
* Nigeria's premiums to North Sea Dated also increased after the Dangote refinery began to build inventory
** Forcados moved $3/bbl higher, ending December at a $4.15/bbl premium vs Dated
** Bonny Light added 28c, closing the month at a $1.90/bbl premium
** Qua Iboe gained 11c to +$1.18/bbl
* Still, Angola faced subdued demand from China and a surplus of WTI
** Angola's Cabinda dropped by $1.17/bbl to +24c
** Girassol saw premiums rise by 73c to +90c

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Russia's Oil-Export Revenue at Six-Month Low as Price Falls
2024-01-18 09:00:00.7 GMT
By Bloomberg News
(Bloomberg) -- Russia's oil-export revenue in December dropped to a six-month low as declining crude prices offset the highest overseas flows since last spring, according to the International Energy Agency.
The top-three global oil producer earned $14.4 billion from foreign sales of its crude and oil products in December, down nearly 9% from the month before, the Paris-based agency said in its monthly oil report on Thursday.
"Russian oil price discounts increased and benchmark oil

prices declined," the IEA said. As a result, revenue dropped even though the nation hiked its oil flows abroad to 7.8 million barrels a day, the highest since March.

Revenue from oil production and exports are a key source of funds for the Russian government's budget, which is burdened by massive spending on the war in Ukraine and the need to maintain social expenditure ahead of presidential elections in March.

READ: War in Ukraine Drains Nearly Half of Russia's Liquid Assets

In a move to reduce the flow of petrodollars to Russian coffers without disrupting immediate oil supplies to the global market, Western nations and their allies have imposed several rounds of energy sanctions against the Kremlin.

In particular, the Group of Seven industrialized countries imposed a $60-a-barrel cap on Russian crude sales. While most countries are free to buy the barrels at a higher price, they cannot access such western services as shipping and insurance.

For months, Russia successfully ignored the restrictions by amassing a large shadow fleet of tankers to carry its oil to buyers in China, India, Turkey and Latin America. However, in the recent months the US has tightened monitoring of the cap compliance, targeting Russia-linked traders, vessels and shipowners for violation of the threshold.

As a result, the discount of Urals, Russia's key oil-export blend, deepened in December "under pressure from the expanded US Treasury investigation," the IEA said.

The Urals price last month fell by some $10 per barrel to just below the $60 cap, the agency's calculations show. The weighted-average export price of a Russian barrel, which also includes the price of the premium ESPO blend, fell more than 10% to $64.10 in December, according to the report.

However, the "widening discounts to North Sea Dated accounted for about one-third" of the Urals decline, while the rest resulted from generally lower international oil prices, the Paris-based agency estimated.

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E-Fuels Could Compete With Biomass Biofuels by 2030: IEA
2024-01-18 09:00:00.14 GMT
By Rachel Graham
(Bloomberg) -- A drop in the cost of making green hydrogen could allow synthetic fuels to compete with sustainable aviation alternatives currently made from biomass, the IEA said in its monthly Oil Market report.
* Expected cost reductions in electrolyzers could cut the cost of synthetic fuels for airlines and shipping
** E-kerosene forecast at $2,150 a ton ($50/GJ) by the end of the decade
*** At that level, use of 10% SAF in an aircraft's fuel would add 5% to ticket prices
** The cost of low-emission e-methanol could be cut to $700/ton ($35/GJ) and e-ammonia to $550/Mt ($30/GJ)
*** That could "open a door for their use as low-emission fuels for shipping"
* Read more: What Are E-Fuels and Can They Make Cars Run Cleaner?

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Middle East Is Set to Lead Growth in Crude Runs in 2024: IEA
2024-01-18 09:00:00.9 GMT
By Rachel Graham
(Bloomberg) -- The Middle East is set to lead gains in crude throughput in 2024, the IEA said in its monthly Oil Market report.

* That forecast is based on continued improvement in runs at Kuwait's Al Zour and Saudi's Jazan plants

Middle East, China and Africa Are Set to Boost Crude Runs in 2024
Crude throughput will decline in OECD nations

	2019	2020	2021	2022	2023	2024
OECD Americas	19.1m b/d	16.6	17.7	18.7	18.7	18.5
OECD Europe	12.2	10.7	11.0	11.5	11.4	11.3
OECD Asia	6.8	5.9	5.8	6.1	5.9	5.8
China	13.4	13.7	14.4	13.7	15.0	15.4
Other Asia	10.4	9.3	9.7	10.2	10.5	10.7
FSU	6.9	6.5	6.8	6.5	6.6	6.6
Middle East	7.9	7.1	7.8	8.3	8.5	9.2
Africa	2.0	1.9	1.8	1.8	1.6	1.9

Source: IEA
Bloomberg

* China's dominance in global refinery activity growth will ease in 2024
** Commercial operations at 400k b/d Yulong expected in 2H
** China's runs could be at risk from level of crude import and product export quotas, after the first batch for 2024 was disclosed in December
** "If further quota allocations are limited, this could restrict runs later in the year, as was evident in 4Q23"
* Crude deliveries to Africa's Dangote are probably for testing purposes, with steady commercial operations to proceed in 2Q; Egypt's runs are likely to increase this year after a "poor performance" in 2023
* IEA expects Dos Bocas in Mexico to start commercial operations in 2025

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https://www.saba.ye/en/news3297551.htm

Revolution Leader

Revolution leader: America’s classification and raids have no meaning

Revolution leader: America’s classification and raids have no meaning

[18/January/2024]

SANA'A January 18. 2024 (Saba) -The Leader of the Revolution,al-Sayeed Abdul-Malik Badr al-Din al-Houthi, renewed the call for the Yemeni people to bring out million in Sabaeen Square in the capital, Sana’a, and the governorates in marches “steadfast with Palestine... and America the mother of terrorism.”

In his speech today regarding the latest developments, the Leader of the Revolution considered the people of million exit as part of the firm Yemeni position and jihad for the sake of Allah and an honorable position.

He expressed hope that people would move and continue their activity with demonstrations in various countries, including Western countries.

He said, "The Arab and Islamic communities can lead those who still have conscience and humanity in those societies in pressing demonstrations in support of the Palestinian people."

Al-Sayeed called on the members of the Yemeni communities in America and Europe to take effective, active and distinguished action to support of the Palestinian people.

Al- Sayyed Abdul-Malik Al-Houthi reviewed the latest development in the American classification of the Ansar Allah component as a terrorist, describing it as funny.

He said, "The American sponsors the Zionist crime of killing children and women in Gaza every day and night."

He added, "The American morally and humanely bankrupt, his practices and policies are criminal, and his tendencies are tyranny and arrogance."

Al-Houthi stressed that America is the source of terrorism, crime and tyranny, pointing out that the American does not have any right to classify others in any classification, because it is in an inhumane and immoral situation and does not possess any values.

He reiterated Yemen's continued firm position in targeting Israeli ships linked to the entity.

The leader of the revolution added, "The Americans want the seas to be safe for the arrival of the support and capabilities they provide to the Zionist enemy."

He pointed out that the Yemeni people will confront the American-British aggression in support of Israel.

He continued, "We will classify America and Britain among the countries that sponsor and protect Zionist terrorism."

Al-Sayyed Abdul-Malik Al-Houthi also renewed the call to all countries to beware of getting involved with America and Britain in the aggression against the Yemeni and Palestinian peoples.

He added, "The tragedy in Gaza worsening, and with it the responsibility on the Arab and Islamic nation doubles, stressing the necessity of boycotting American and Israeli goods."

The revolution leader asked the Arab peoples to activate the weapon of boycott of American and Israeli products and

goods.

Al-Sayyed explained that the Zionist Jewish crime committed more than two thousand massacres and genocides against the Palestinian people in 104 days.

The leader of the revolution pointed out that the United Nations, the Organization of Islamic Cooperation and the Arab League content with statements and condemnations regarding what was happening in Palestine that did not rise to the level of responsibility.

He said, "There is negligence on the part of most Islamic countries in the Arab region and elsewhere towards the Palestinian people."

He warned of the danger of indifference towards what the American and Zionist enemy is committing in Palestine.

He continued, "Biden did not excuse himself because he become old. Rather, after October 7, he took the initiative to occupied Palestine to directly and personally express his support for the Zionist enemy.

Al-Sayyed Al-Houthi stated that the Palestinian people suffered for decades, and in the eyes of the Americans and Europeans that they have no right to defend themselves and their land.

The leader pointed out that the Americans, the British, and the Israelis violated Yemen's sovereignty to the point of aggression and declaring war on Yemen.

He also stressed that the American-British aggression against the Yemeni people will not change Yemen’s position in supporting the Palestinian people.

He said, "The American must understand that we are in a position of faith that cannot be changed by intimidation, aggression, or bombing."

Al-Sayeed expressed the great honor for Yemen to directly confront the evil trio, “Israeli, American, and British,” which are the mother of terrorism, its roots, and the sources of tyranny.

He went on to say, "We proceed consciously and take pride in what al-Sayeed Hussein Badr al-Din al-Houthi said, that 'America is straw.'"

The leader of the revolution concluded his speech by saying, "We proceed with confidence, and the American position does not intimidate us."

M.M

https://www.saba.ye/en/news3295460.htm

Revolution leader calls for exit of millions supervisors in Al-Sabeen Square & provinces in marches of “Promised conquest & holy jihad”

Revolution leader calls for exit of millions supervisors in Al-Sabeen Square & provinces in marches of “Promised conquest & holy jihad”

[11/January/2024]

SANA'A Jan 11. 2024 (Saba) - The revolution leader of the , Mr. Abdul-Malik Badr al-Din al-Houthi, called for the honorable exit of millions in Sabaeen Square in the capital, Sana'a, and the squares of the provinces in the “Promised Conquest and Holy Jihad” marches.

In his speech on Thursday on the occasion of Friday of Rajab, the Leader of the Revolution stressed that going out in demonstrations expresses faith, is part of jihad for the sake of God, and is a great stance that is important according to the standard of faith.

He pointed out that the nation faces a great test in this era, challenges and dangers from its enemies, at the forefront of which is the Jewish Zionist lobby, which is the main enemy of the Islamic nation, and this hostility is evident in what the Zionists do against the oppressed Muslim people of Palestine. Pointing out that targeting Al-Aqsa Mosque comes in the context of hostility to the Islamic religion and the nation and all Jewish practices in its courtyards of hatred and aggression.

Comprehensive action:
The Leader of the Revolution affirmed that the Yemeni people took all possible action, comprehensively, with demonstrations and marches that are unparalleled in any other country in the world, and with the military stance of targeting the enemy with missiles and drones, and in preventing ships linked to the Zionist entity from crossing the Red Sea, the Arabian Sea, and Bab al-Mandab, and targeting them at any level the Yemeni people can reach it with their capabilities and means and will not hesitate to act on its basis.

He added, "Our ceiling as a Yemeni people is high within the framework of this great and sacred stance in which we take a leap of faith, and our people are moving at all levels with broad military mobilization activities that have included most of the governorates, and those joining it have become thousands, this is a very important path, activities at the level of movement in various events, donating money, and media activities are moving at all levels in every possible way and on an ongoing basis." Stressing that the greatest scourge on the nation, especially in Arab countries, is boredom. They react at the beginning of events and then become tamed and slandered.

The leader of the revolution pointed out that the Yemeni people came out in a very large way in Al-Sabeen Square and the governorates, and their interaction increased after the American crime in the Red Sea, stressing the importance of continuing as it expresses the firmness of the emotional state and the alertness of conscience.

He stated that the American insists on the continuation of the crime and massacre, for which he provided missiles, bombs, and money and supervised its perpetration, and provided the Zionist enemy with protection at the regional and international levels... indicating that the American expresses and announces with all insolence that he opposes the ceasefire and embraces the Zionist crime against the oppressed Palestinian people.

Expansion of the boycott circle :
Mr. Abdulmalik Badr al-Din al-Houthi pointed out that the American, British, and Israeli are the arms of Jewish Zionism in the world. He wondered, “Doesn’t this insistence on the Israeli side, the American side, and the British side provoke us to continue killing children and women?!”

He said, "We as a Muslim nation have a responsibility to take action and not to get bored and to escalate our position. The scope of the boycott of American and Israeli goods in the Gulf countries must expand, and I address this call to all peoples in the Gulf to boycott American and Israeli goods."

He added, "I appeal to the Egyptian people and remind them of their moral, Islamic and humanitarian responsibility to boycott American and Israeli goods."

The leader of the revolution called on the people of the nation to increasingly express their voice in support of the Palestinian people and their indignation at the crimes of the Americans, the Israelis and the British, and this is the least they can do. He said, "Listen to the calls of children and women, open your hearts to them, deal with them with your conscience, and feel your responsibility."

He stressed that the escalation of the Israeli enemy in Lebanon increases the resolve and determination of our brothers in Hezbollah, their steadfastness, their escalation, and their stance of faith... indicating that the position of the Iraqi people in the Popular Mobilization Forces and the Mujahideen of the Iraqi people is increasing.

He also called on the people of the nation to be active, to regain the momentum of demonstrations and marches, and to be in a state of continuous mobilization.

Faith-based position :
The leader of the revolution said, "We in Yemen will not hesitate, God willing, to do everything we can and we will confront the American aggression. Any American aggression will never remain without a response, and the response will not be at the level of the operation that was recently carried out in targeting the American at sea with more than 24 aircraft and a number of missiles, the response is greater than that."

He added, "The American and British position will not stop us from protecting ships linked to Israel, so that the Israelis will continue their crimes without disturbance. The Yemeni position in preventing ships linked to Israel from crossing the Red Sea and targeting them is a very effective and influential position, the Zionist enemy inflicted great losses on its economy, and its effects extend to those who stand with it and support it."

He pointed out that those who belittled the Yemeni position and tried to mock it, after its influence became clear, turned to exaggeration when the American attack occurred.

The Leader of the Revolution affirmed that the Yemeni people are not among those who fear America, nor are they among those whose stance is so extreme that it does not anger America... Pointing out that the American attack on the naval forces is evidence of the influence of Yemen's position on the Zionist enemy, and therefore it is very disturbing to the Zionist and American enemy accordingly and annoying for the British.

He pointed out that what matters to the American who is involving himself more and more in the service of Zionism is to implicate others with him, and he is making every effort with the British to implicate other countries with him in the confrontation with the Yemeni people.

He added, "There is no problem for the Europeans, China, and the whole world to pass through the Red Sea. The only and exclusive target are ships linked to Israel, but whoever wants to get involved and attack our people and target our naval forces and army is actually risking his navigation and commercial ships, and risks at the military level by entering into a confrontation that will pay the price." Stressing that the Yemeni people do not evade the field of confrontation and with any enemy, regardless of their capabilities.

The leader of the revolution advised all Asian and European countries in the East and West and all countries not to get America involved. He said, "Let it get involved and watch it, and let Britain get involved with it."

He added, "Our soul is long and our people have the ability to endure and remain steadfast in their positions in large and long confrontations, and the loser is the one who implicates himself in attacks on our people in the service of Israel and the continuation of crimes against the Palestinian people."

The leader of the revolution also advised all Arab and Islamic countries not to partner with the Americans in an effort to protect Israeli ships...pointing out that the biggest criminal in the world is the Israeli and whoever serves him to continue his crimes against the Palestinian people. It is not appropriate for any Arab country to serve Israel and stand with the Zionist enemy to continue its crimes in Gaza.

He stated that what happened from the Bahraini regime does not represent the rebellious, dear and oppressed people of Bahrain, indicating that the Al Khalifa in Bahrain are slaves of the Zionists and involved in corruption and crimes that subjected them to the Zionist Jews, while the position of the people of Bahrain is an honorable and great position towards the Palestinian people.

He publicly expressed the hope that the rest of the Arab and Islamic countries would never get involved with the

Americans, the Israelis and the British.

Direct confrontation:
The leader of the revolution said, "Thank God, we are at ease when there is a direct confrontation with the Americans and the Israelis, and no matter how many martyrs we offer in the direct confrontation with the Americans and the Israelis, this will not affect us or weaken our position."

He added, "We offered thousands of martyrs as we confronted America's agents, and direct confrontation with the Americans, the British, and the Israelis is dearer to us. We are ready to do what is necessary and we will fight with all boldness because we rely on God in our stance toward the aggression against the Palestinian people."

He stressed that the martyrs from the naval forces in the battle of the Promised Conquest, the Holy Jihad, and on the road to Jerusalem won a great victory to obtain martyrdom in the direct battle and during a direct American attack. He said, "We are more determined to continue the path and target ships linked to Israel, and we will not back down from that, and our position is faith-based."

The leader of the revolution called on the Yemeni people to continue all mobilization activities, combat training, demonstrations, marches, and donating money, despite the difficult circumstances, and within the framework of media activity and the situation.

He also called on the negligent members of the Islamic nation to take action...and said, "Isn't it time for you to take a stand?!"

He said, "Our dear people will go out tomorrow, God willing, in an honorable and multi-million-man protest, without lethargy or boredom, in Al-Sabeen Square and in the other governorates."

The leader of the revolution added, "I hope that you, with your honorable positions and values, will not be like those who are affected by boredom and apathy and are unable even to attend a demonstration or march."

Historical station:
Mr. Abdul Malik Badr al-Din al-Houthi pointed out that Friday of Rajab is one of the most important, holiest, highest, and greatest historical stations for the Yemeni people in their faith affiliation and entry into Islam.

He said, "On the Friday of Rajab, a very large number of the Yemeni people converted to Islam after the Commander of the Faithful (Amir Al-Mu'minin), Ali bin Abi Talib, read to them the message of the Messenger of God, may God's prayers and peace be upon him and his family, in a large meeting in Sana'a calling on them to Islam. They converted to Islam voluntarily, and Islam spread and spread to many regions, and that day was one of the most important historical milestones for our people."

The Leader of the Revolution extended his congratulations and blessings to the Yemeni people on this occasion because it is a very important milestone and a great and great blessing, honor and great favor from God and divine success in belonging to Islam.

He pointed out that celebrating this blessing is an expression of gratitude to God Almighty, an acknowledgment of the great blessing, and pride in one of the brightest pages in the history of the Yemeni people.

He explained that one of the most important things related to this occasion is working to consolidate and strengthen the identity and faith affiliation of the Yemeni people through cultural, pedagogical and awareness-raising activities, as well as raising, protecting and preserving the emerging generation, which targets them in their faith affiliation.

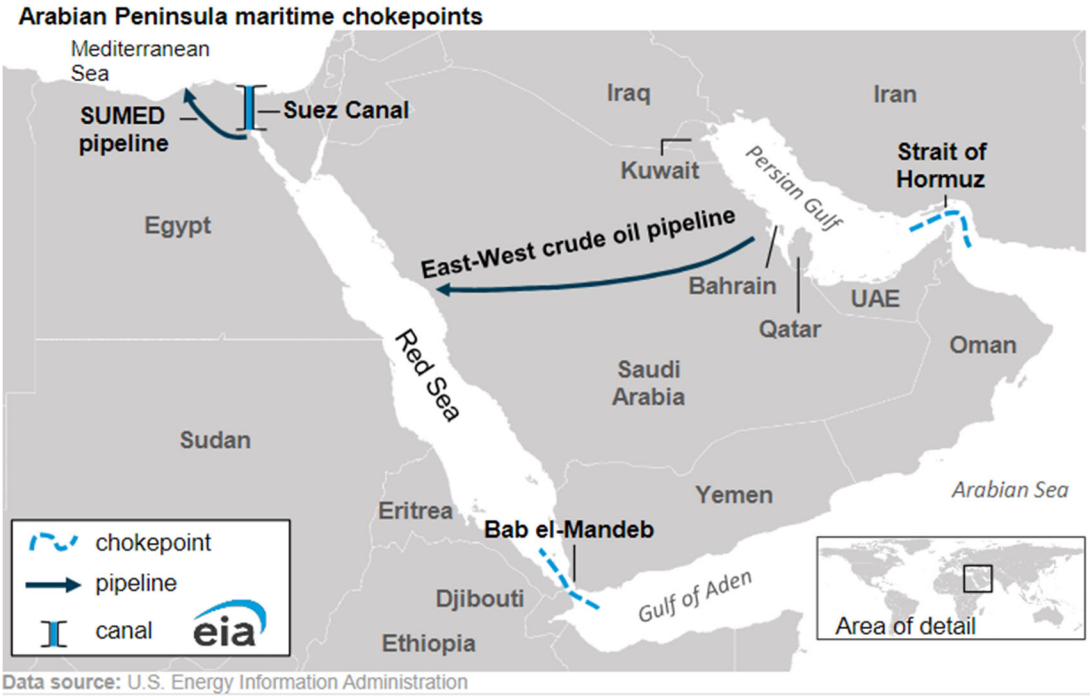
He added, "When we talk about this occasion that brings us to this important stage in our people's affiliation to Islam, it is important that we understand the characteristics of this faith affiliation to the point that the Messenger, may God bless him and his family and grant them peace, said (Faith is Yemeni and wisdom is Yemeni). This is a great and very important expression that indicates the deep-rooted affiliation to our people and their firmness of faith."

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



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**

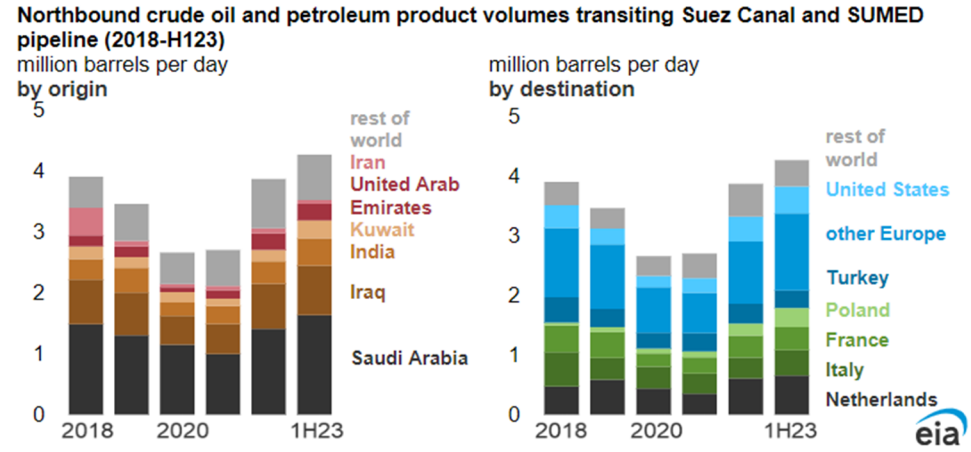
Data source: U.S. Energy Information Administration analysis based on Vortexa tanker tracking
Note: LNG=liquefied natural gas, 1H23=first half of 2023

Oil shipments

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

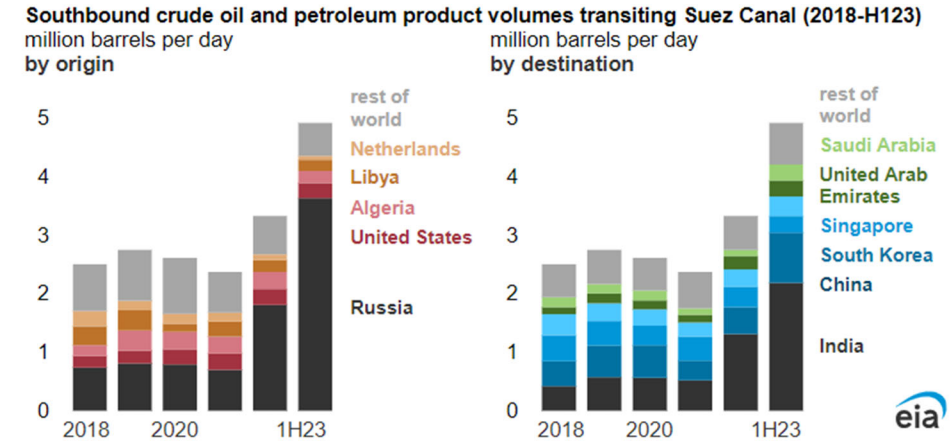
Iran reduced all exports from Iran, including those through the Suez Canal. In addition, less crude oil and oil products from Middle East producers moved through the Suez Canal because Europe imported less oil from the Middle East and more from the United States. The COVID-19 pandemic further reduced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



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

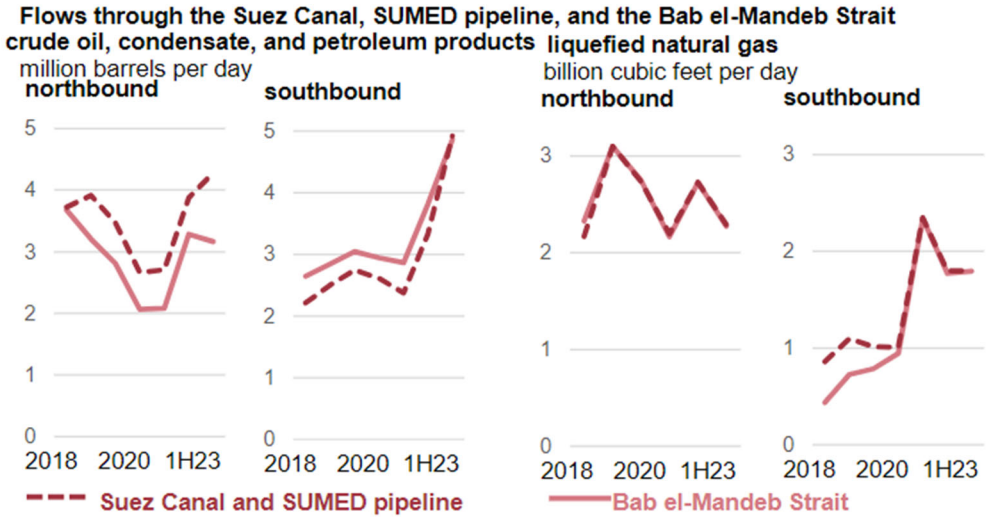
Southbound shipments through the Suez Canal rose significantly between 2021 and 2023, largely because of Western sanctions on Russia's oil exports. Oil exports from Russia accounted for 74% of Suez southbound oil traffic in the first half of 2023, up from 30% in 2021. Most of those export volumes were 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.



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

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

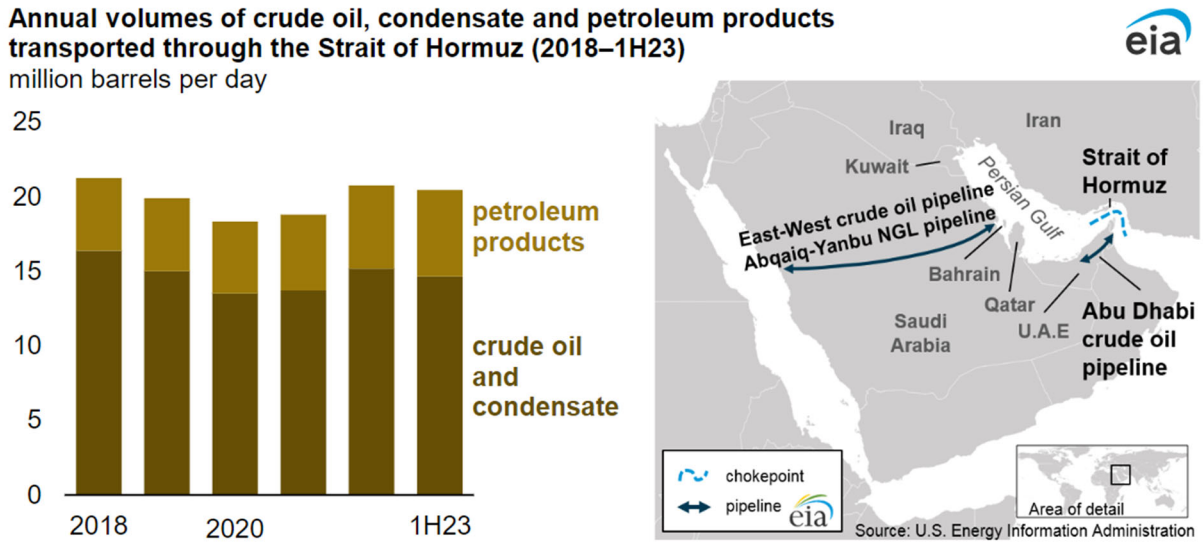
Although oil flow trends through the Bab al-Mandeb Strait are similar to those of the Suez Canal, more oil exits the Red Sea (northbound via the Suez Canal and southbound via the Bab el-Mandeb Strait) than enters the Red Sea through these chokepoints. Saudi Arabia transports some crude oil from the Persian 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

https://www.eia.gov/todayinenergy/detail.php?id=61002

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.

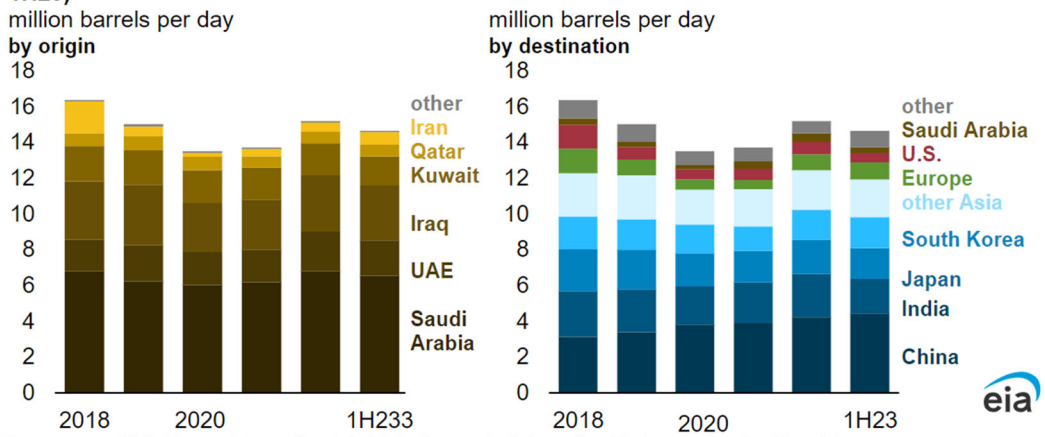
Only Saudi Arabia and the United Arab Emirates (UAE) have operating pipelines that can circumvent the Strait of Hormuz. Saudi Aramco operates the 5-million-b/d East-West crude oil pipeline and temporarily expanded the pipeline's capacity to 7 million b/d in 2019 when it converted some natural gas liquids 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.globaltimes.cn/page/202401/1305359.shtml

COVID-19 infections may rebound in China in January: China CDC

By Global Times Published: Jan 14, 2024 09:18 PM

A resident receives a flu vaccine at a community health service center in Shenyang, Northeast China's Liaoning Province, on November 15, 2023. Respiratory diseases have progressed to their peak period of incidence across China, posing a threat to vulnerable groups such as children and the elderly. Photo: VCG

The number of patients received at fever clinics in medical institutions across the country has shown a fluctuating decline since the New Year's Day, but there is a possibility of a rebound in the COVID-19 infection epidemic in China in January, according to Chinese health authorities on Sunday.

Mi Feng, a spokesperson with the National Health Commission, said at a Sunday press briefing that since the beginning of 2024, the number of patients received at fever clinics in medical institutions across the country has shown a fluctuating downward trend. At present, respiratory diseases are still mainly influenza, and the infection of COVID-19 is at a relatively low level, with the overall medical services currently stable and orderly.

Recent data from the multi-channel monitoring system showed that the positive rate of COVID-19 virus testing in sentinel hospitals remained below one percent after the New Year's Day holiday, and the proportion of the JN.1 variant strain showed an upward trend, said Wang Dayan, director of the China National Influenza Center, National Institute for Viral Disease Control and Prevention, Chinese Center for Disease Control and Prevention (China CDC).

Experts believe China will continue to experience various respiratory pathogens alternating or co-circulating this winter and in the coming spring, with influenza viruses still dominating in the short term. Due to continuous importation of the JN.1 variant strain, a gradual decrease in domestic influenza, and a decline in population immunity, the COVID-19 epidemic may rebound in January, with the JN.1 variant highly likely to develop into the dominant variant in China, according to Wang.

Wang noted that southern provinces in China entered the influenza season in early October, followed by northern provinces in late October. Initially, the predominant circulating strain was the H3N2 subtype influenza virus.

However, in the past three weeks, the proportion of influenza B virus in southern provinces has increased to 36.8 percent, and in the past five weeks, the proportion in northern provinces has risen to 57.7 percent. In some provinces, the proportion of influenza B virus has exceeded that of influenza A.

Wang said it is difficult to distinguish between seasonal influenza caused by influenza A and influenza B viruses in terms of clinical symptoms, and different types and subtypes of influenza viruses usually coexist during the same flu season, but in different proportions.

"The immune response generated after contracting influenza A does not provide effective immune protection against influenza B, which means that even if one has had influenza A during the epidemic season, there is still a possibility of being infected with influenza B," said Wang, noting that high-risk individuals should receive influenza vaccination as early as possible every year.

Wang Guiqiang, director of the Department of Infectious Diseases at the Peking University First Hospital, told a news conference on Sunday that since winter is the peak season for respiratory infectious diseases, the

immunity established after infection with various pathogens is not long-lasting, so repeated infections may occur. However, the symptoms of a second infection with the same pathogen are often milder.

Different pathogen infections may worsen the condition, especially after damage to the upper respiratory mucosal barrier, which may lead to secondary bacterial infections. For the elderly and those with underlying diseases, infection with COVID-19 or influenza may worsen their underlying conditions, said Wang, stressing that they should pay more attention to early intervention and diagnosis of respiratory diseases.

Mi added that with the approaching winter vacation and Spring Festival, the large-scale movement and gathering of people may accelerate the spread of respiratory diseases, so it is necessary to strengthen monitoring and early warning.

Moreover, timely health consultation and referral guidance services should be provided to key populations such as the elderly, pregnant women, children, and patients with chronic underlying diseases, as well as convenient conditions for them to receive vaccinations.

Additionally, it is necessary to actively allocate medical resources, optimize the medical treatment process, and ensure the supply of medical supplies. Besides, medical resource reserves should be prepared for common sports injuries, accidents, and cardiovascular and cerebrovascular emergencies during the holiday period to ensure that patients receive timely and effective treatment, according to Mi.

Global Times

https://media.ford.com/content/fordmedia/fna/us/en/news/2024/01/19/ford-adds-third-crew-to-meet-demand-for-bronco-and-ranger--reduc.html

FORD ADDS THIRD CREW TO MEET DEMAND FOR BRONCO AND RANGER, REDUCES F-150 LIGHTNING PRODUCTION

JAN 19, 2024 | DEARBORN

- Ford will create nearly 900 new jobs and add a third crew at Michigan Assembly Plant to increase production of the popular Bronco and Bronco Raptor sport-utility vehicles and the all-new Ranger and Ranger Raptor pickups
- The company continues to balance production to meet customer demand for its broad portfolio of trucks, utility vehicles and cars with a mix of gas, hybrid and electric powertrains
- Ford is reducing production of F-150 Lightning, the top-selling electric pickup in the U.S., to achieve the optimal balance of production, sales growth and profitability. Ford expects continued growth in global EV sales in 2024, though less than anticipated, and is preparing to launch next-generation EVs

DEARBORN, Mich., Jan. 19, 2024 – Ford Motor Company announced plans to create nearly 900 new jobs as part of a new third crew at Michigan Assembly Plant in Wayne to meet demand for the popular Bronco and Bronco Raptor and the all-new Ranger and Ranger Raptor.

The company is moving nimbly across its global footprint to capitalize on its balanced lineup and serve customers with the right mix of gas-powered, hybrid and electric vehicles, while optimizing financial returns.

In addition to nearly 900 net new hires, the new 1,600-person third crew at Michigan Assembly Plant will also include approximately 700 employees from Ford's Rouge Complex in Dearborn who applied for job openings.

Ford is adding the manpower this summer to support planned future volume increases for vehicle lines assembled at the plant. The all-new Ranger and Ranger Raptor are on track to launch this year. Michigan Assembly Plant will transition to producing vehicles seven days a week versus five currently, with three crews working two shifts.

Matching F-150 Lightning production to customer demand

The company also has capacity available to scale production of gas-powered and hybrid F-150 trucks based on customer demand.

Ford was America's No. 2 best-selling electric vehicle brand in 2023, and F-150 Lightning is America's best-selling electric truck with sales up 55% in 2023 and further growth forecast for 2024.

"We are taking advantage of our manufacturing flexibility to offer customers choices while balancing our growth and profitability. Customers love the F-150 Lightning, America's best-selling EV pickup," said Ford President and CEO Jim Farley. "We see a bright future for electric vehicles for specific consumers, especially with our upcoming digitally advanced EVs and access to Tesla's charging network beginning this quarter."

Approximately 1,400 employees will be impacted as the Rouge Electric Vehicle Center transitions to one shift effective April 1. Roughly 700 will transfer to Michigan Assembly Plant and the others will be placed in roles at the Rouge Complex or other facilities in Southeast Michigan, or take advantage of the Special Retirement Incentive Program agreed to in the 2023 Ford-UAW contract.

A few dozen employees could be impacted at component plants supporting F-150 Lightning production, depending on the number of employees who apply for the Special Retirement Incentive Program. Ford would provide placements for impacted employees within Southeast Michigan.

Ford Will Cut Planned Electric F-150 Production as Demand Slows
2023-12-12 19:50:32.11 GMT

By Neal E. Boudette Neal E. Boudette is based in Michigan and has been covering the auto industry for two decades. He joined The New York Times in 2016 after more than 15 years at The Wall Street Journal.

(New York Times) -- Ford and other automakers have had to readjust their electric vehicle production plans because sales have been weaker than they had expected.

Slower-than-expected growth in sales of electric vehicles has forced several automakers to scale back once-ambitious production plans. Ford Motor has become the latest company to join that pullback.

In a memo sent to suppliers, the company said that it now expected to produce an average of 1,600 electric F-150 Lightning pickup trucks per week in 2024, about half of the level it had previously hoped to achieve.

The reduced target reflects the substantial dimming of expectations for sales of battery-powered cars and trucks that automakers are now coming to grips with. Ford and its main rival, General Motors, had been racing to increase production of a variety of electric vehicles, but consumer enthusiasm has not kept pace with those plans over the last six months. Some would-be buyers have been put off by the high prices of many electric vehicles, including the F-150 Lightning, as well as the availability and reliability of charging stations.

G.M. once expected to produce 400,000 electric vehicles by the middle of 2024, but withdrew that goal in November, and is delaying some new electric models. Rivian, a younger automaker, has said it aims to make 52,000 electric vehicles by the end of this year, a third of the 150,000 a year it is hoping its Illinois factory will eventually produce.

Similarly, Ford had hoped to have the capacity to make 600,000 battery-powered vehicles a year by the end of next year. As recently as September, Ford said it aimed to be able to make 150,000 electric F-150s a year — a rate of about 3,000 vehicles a week. It has also lowered production plans for its electric sport utility vehicle, the Mustang Mach-E.

“Given the dynamic E.V. environment, we are being judicious about our production and adjusting future capacity to better match market demand,” Ford’s chief financial officer, John Lawler, said last month in a conference call with financial analysts.

News of Ford’s memo to suppliers was earlier reported by Automotive News.

Even with the reduced target, Ford still expects 2024 production and sales of the Lightning to easily surpass 2023 levels, a spokeswoman said. In the first 11 months of this year, Ford sold more than 20,000 of the trucks, a rise of more than 50 percent from the same period in 2022. The company’s sales of all electric models grew 16 percent, to more than 62,000 vehicles.

Spurred by Tesla and its rapid growth in sales and profits, traditional

automakers have been spending tens of billions of dollars to develop an array of electric models and to tool up factories to produce them and their batteries.

But even Tesla has struggled with slower sales growth this year. That has forced the company to cut prices of its two most popular models several times, pushing down its profit margin significantly.

Other companies are pushing back plans for new models. Last month, G.M. said it would delay electric versions of its Chevrolet Silverado and GMC Sierra pickups, and the Chevrolet Equinox sport-utility vehicle. Honda once planned to develop a small electric car with G.M. but nixed that effort this year.

Ford has four battery plants under construction in the United States, but recently said it would scale back the size of one of those, in Michigan.

Early on, automakers expected customers to flock to electric cars and trucks. At the end of 2021, Ford had accepted reservations for more than 200,000 F-150 Lightnings.

But strong early interest has not always resulted in booming sales. Cost is a big culprit. The price of batteries remains high, which has made some electric vehicles much more expensive than comparable gasoline-powered models at a time when consumers have been struggling with inflation.

When it introduced the Lightning, Ford said the truck would start at $40,000 but the company raised prices soon after, disappointing many people who reserved the truck. The pickup now starts at $50,000 and the top-of-the-line version starts at $92,000.

In addition it can also be hard to find enough places to charge electric cars and trucks in many parts of the country, unnerving some car buyers, especially people who do not have a garage or driveway where they can install a personal charger. Some drivers have also complained about long lines at public chargers or that some machines are broken or take too long to charge vehicles.

“We are going to respond to demand,” Mary T. Barra, G.M.’s chief executive, said in a November conference call. “We are going to make sure we have the right products at the right time, but we’re not overbuilding.”

Click Here to see the story as it appeared on the New York Times website.

-0- Dec/12/2023 19:50 GMT

To view this story in Bloomberg click here:
https://blinks.bloomberg.com/news/stories/S5KKG7TVI5MO

https://www.motortrend.com/reviews/ford-f150-lightning-electric-truck-towing-test/amp/

Tow No! The Ford F-150 Lightning Struggled in Our Towing Test

We towed 3100-, 5300-, and 7200-pound travel trailers with Ford's electric truck and didn't get very far from home.

Related Video

Eric TingwallWriterJim FetsPhotographer
Jul 31, 2022

Before you hitch an Airstream to your electric truck and set out to circumnavigate the country, you need to understand this: With the largest available battery pack, a fully charged 2022 Ford F-150 Lightning electric truck has less energy onboard than a regular F-150 with four gallons of gas in its tank.

Consider how far a combustion-powered F-150 would tow at max capacity on four gallons of regular unleaded. Thirty five miles? Maybe 40 if you drive slowly?

Now that you understand where we're starting from, you won't be as surprised to learn that the towing range of the electric F-150 is dismal. In MotorTrend testing, an F-150 Lightning Platinum saddled with a camper that nearly maxed out its 8,500-pound towing capacity couldn't even cover 100 miles. Range improved when we hooked up a significantly lighter trailer, but not by as much as you might expect.

How Much Can The Ford F-150 Lightning Tow?

The Lightning's towing capacity ranges from 5,000 pounds up to 10,000 pounds. To hit the big number, you'll need an XLT or Lariat trim with the optional extended-range battery, and the Max Trailer Tow package that adds more battery- and motor-cooling capacity. To get there, you'll spend at least $75,094.

2022 Ford F-150 Lightning Towing Capacity

	Standard-Range Battery	Extended-Rang
Pro	5,000 lb Max Tow Pkg: 7,700 lb	N/A
XLT	5,000 lb Max Tow Pkg: 7,700 lb	7,700 lb Max Tow Pkg: 1
Lariat	5,000 lb Max Tow Pkg: 7,700 lb	7,700 lb Max Tow Pkg: 1
Platinum	N/A	7,700 lb Max Tow Pkg: 8

We performed our testing with the top-shelf $92,669 Platinum trim (full test at this link), which includes the larger battery and has a standard towing capacity of 7,700 pounds. The Max Trailer Tow upgrade, which wasn't equipped on our test truck, raises that to 8,500 pounds.

The Test: Towing The Line

With more than 500 pop-ups, teardrops, travel trailers, fifth-wheels, camper vans, and RVs on the lot, the General RV dealership in Wixom, Michigan, inspires grand dreams about wandering America on wheels. We set our sights significantly shorter, though, as we embarked on an out-and-back loop as far as we dared travel with the heaviest trailer we plucked out of General RV's toy box. That camper, a 2022 Grand Design Imagine 2910BH, sleeps eight, measures nearly 34 feet long, and weighs 7,218 pounds.

We followed the same methodology used to determine an EV's MotorTrend Road-Trip Range. With the automatic climate control set to 72 degrees, headlights on, and the audio system playing, our testing imitates how most owners will use their vehicles, rather than reaching for the maximum possible range. We targeted an average speed of 70 mph, but construction at the beginning and end of our route meant our speed was slightly lower than we were aiming for. All three tests were at least consistent, with average highway speeds between 64 and 67 mph.

After establishing an 80-mile route, we repeated the test with a 17-foot, 3,140-pound Forest River R Pod RP-153, and a 28-foot, 5,260-pound Coachmen Freedom Express 246RKS. We used the energy consumption from these real-world tests to extrapolate how far someone could drive on a full charge.

The Results: How Far Can A Ford F-150 Lightning Tow?

Before we answer the big question, let's set the baseline. While the EPA says the F-150 Lightning Platinum is good for 300 miles, that number is based on a mix of city and highway driving. With only a driver aboard and no trailer in tow, the Platinum achieved a MotorTrend Road-Trip Range of 255 miles.

We had been warned to expect the range to be cut in half when towing, but the effect of towing these travel trailers proved even more significant. With the smallest and lightest trailer, we measured a range of just 115 miles. That figure fell to 100 miles with the middleweight camper and sank to a mere 90 miles with the 7,218-pound Grand Design trailer.

2022 Ford F-150 Lightning Platinum Towing Test

	Forest River R Pod RP-153	Coachmen Freedom Express 246RKS	G
TRAILER WEIGHT	3,140 lb	5,260 lb	7,
LENGTH	17 ft	28 ft 2 in	33

APPROXIMATE FRONTAL AREA	77 sq ft	88 sq ft	89
MT ROAD-TRIP RANGE	115 mi	100 mi	90

The tightly clustered results reveal that aerodynamics have a bigger impact on towing range than weight. Using the width and height of the trailers to calculate a crude approximation of frontal area, the larger two trailers more than double the area plowing through the air compared to an unladen F-150. If you're towing something smaller and sleeker, such as a boat, an open car hauler, or a utility trailer, you'll likely be able to push farther than we did on a single charge.
We should also note that the XLT and Lariat models are more efficient than the Platinum, stretching the same battery pack to an EPA-rated range of 320 miles. Cherry-picking the right trim and options could buy you a few more towing miles.

What's It Like To Tow With The Ford F-150 Lightning?

With 775 lb-ft of torque on tap, the electric Ford F-150 shoves off from a stop smoothly and confidently, but that authority wanes as speeds climb. Equipped with single-speed transmissions at the front and rear motors, the Lightning can't just downshift into the meat of the torque curve like a gas truck does, so passing maneuvers at highway speeds require patience and planning with a heavy trailer.

The Lightning takes some of the stress out of towing, however, with clever and easy-to-use tech. The blind-spot monitor can extend to cover trailers up to 33 feet long, and a Tow Technology package that's standard on the Platinum and available on all other trims adds a trailer brake controller, a 360-degree camera system, and Pro Trailer Backup Assist, which takes the guesswork out of steering a trailer in reverse. It also includes Ford's brilliant Smart Hitch feature that puts the dark art of dialing in the tongue weight within reach of average Joes and Janes. Carrying between 10 and 15 percent of a trailer's weight on the hitch makes for more stable towing, and Smart Hitch makes figuring out if you are within that window a simple extension of hooking up the trailer—if the Lightning indicates the hitch is carrying more or less than that, you either repack the trailer or use a weight-distribution hitch to shift the balance of the load.

Perhaps most important, the Lightning doesn't try to hide its limited towing range. The truck cut its estimated range in half every time we connected a trailer and punched the load's weight and dimensions into the 15.5-inch touchscreen. That number then fell rapidly during the first few miles of highway driving until it accurately reflected what was possible. Until someone figures out how to double or triple the energy density of lithium-ion batteries, that seems like the most we can ask of electric vehicles that are pressed into towing duty.

https://www.globaltimes.cn/page/202401/1305550.shtml

China’s population decreases by 2.08 million in 2023 to 1.40967 billion

By Global Times Published: Jan 17, 2024 11:39 AM

China's population decreased by 2.08 million people in 2023 to 1.40967 billion, the National Bureau of Statistics (NBS) data showed on Wednesday. In 2023, 9.02 million babies were born, resulting in a birth rate of 6.39 per thousand people. Meanwhile, 11.1 million people died in 2023, equal to a death rate of 7.87 per thousand people, the data showed.

The natural population growth rate was negative 1.48 per thousand people, the NBS said.

The male population was 720.32 million, surpassing the female population that was 689.35 million, data showed. The overall gender ratio was 104.49 (per 100 females).

In terms of age, the working-age population (aged 16-59) stood at 864.81 million, making up 61.3 percent of the total population.

The population aged 60 and above was 296.97 million, accounting for 21.1 percent of the total population, with population aged 65 and above being 216.76 million, making up 15.4 percent of the total.

Regarding urban-rural composition, the urban population was 932.67 million in 2023, an increase of 11.96 million compared to the previous year, while the rural population was 477.00 million, a decrease of 14.04 million. The urban population accounted for 66.16 percent of the total population, which increased by 0.94 percentage points compared to the previous year, according to the data.

Following China's first-ever population decline in 2022, the extent of population decline in China had been expected to deepen in 2023, according to demographic forecasts.

The latest China Development Report 2023 released by the State Council's Development Research Center pointed out that over the past 12 years, China has experienced two significant turning points in terms of population: the peak of the working-age population and the peak of the total population. Currently, China's total population is at its peak, and it is expected to continue declining for the foreseeable future.

Professor Yuan Xin, deputy head of the Population Association of China and a demographer from Nankai University in Tianjin, was quoted as saying in media reports on Wednesday that international experience suggests that the initial stages of population decline are often accompanied by fluctuations in population growth and decline.

Due to changes in population size and the impact of the COVID-19 pandemic, population decline in 2023 is expected to be more pronounced than in 2022, Yuan said. However, in 2024, the Year of the Dragon according to Chinese zodiac sign, during which people more prefer to have baby, and with the potential rebound in fertility due to the effects the post-pandemic, population decline may ease somewhat, the expert noted.

The report states that a continued decline in the birth rate will be the dominant long-term trend impacting China's population change. It is estimated that in the coming years, the number of births is expected to decrease by approximately one million every decade.

The report identifies four main reasons for the expected continuation of low birth rates in the future including delayed marriage age, decreased willingness among young people to have children, reduction in the number of women of childbearing age and higher prevalence of infertility and subfertility.

Global Times

Dan Tsubouchi @Energy_Tidbits · 3h

Drones hit Novatek's Ust-Luga operations @Reuters

This is a reminder that Russia's major Baltic Sea #Oil export loading terminals at Ust-Luga and Primorsk are also at risk for drone attacks.

See 👇@GIEBrussels #LNG map & @JLeeEnergy loading table.
#OOTT
reuters.com/world/europe/r...

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Dan Tsubouchi @Energy_Tidbits · 4h

Libya's Sharara #Oil field to reopen today as govt negotiated end of protests after ~3 weeks.

Was producing ~270,000 b/d pre shut-in, so should restore Libya production to 1.2 mmb/d.

Thx @business @S_Elwardany Hatem Mohareb.

#OOTT

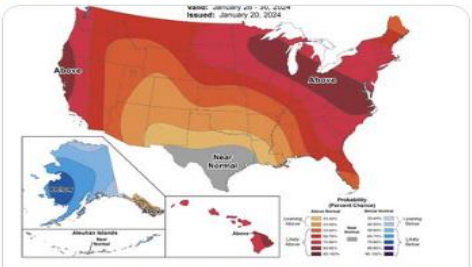
3 7 1.4K

Dan Tsubouchi @Energy_Tidbits · 18h

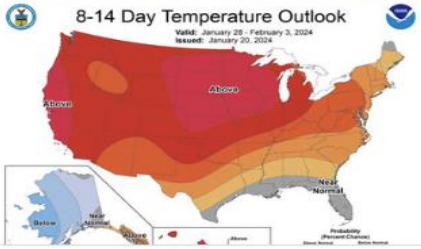
Continued negative to HH #NatGas. HH closed Fri at $2.52, down $0.79 from $3.31 on Jan 12.

@NOAA updated 6-10 & 8-14 day temperature outlook fcasts much warmer than normal for Jan 26-Feb 3, which is part of the normal peak winter weather demand period.

#OOTT



https://www.cpc.ncep.noaa.gov/products/predictions/814day/index.php



> **Dan Tsubouchi** @Energy_Tidbits · Jan 16
>
> 
>
> Here's why HH #NatGas prices fell $0.41 to $2.90 vs Friday.
>
> @NOAA's updated 6-10 & 8-14 day temperatures outlook call for warmer than normal temps across all ...
> Show more

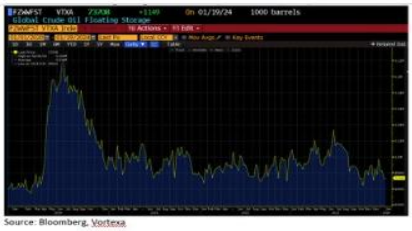
4 9 4.8K

Dan Tsubouchi @Energy_Tidbits · 23h

2nd consecutive week floating #Oil storage in low 70's.

01/19 73.71 mmb +1.15 WoW vs marginally revised up 01/12 of 72.56 mmb.
No big upwards revisions in last seven weeks.

Thx @Vortexa @business. #OOTT



Source: Bloomberg, Vortexa

Posted Jan 20, 9am MT | Jan 13, 9am MT | Jan 6, 9am MT

Source: Bloomberg, Vortexa

Vortexa Crude Oil Floating Storage by Region (mmb)

Region	Jan 19/24	Jan 12/24	WoW	Original Posted Jan 12/24	Recent Peak Jun 23/23	Jan 19 vs Jun 23
Asia	35.87	31.11	4.75	26.39	73.81	-37.94
Europe	6.66	6.96	-2.50	9.84	6.44	-1.98
Middle East	9.25	9.91	-0.66	10.37	7.17	2.08
West Africa	3.70	5.52	-1.82	4.52	7.62	-3.92
US Gulf Coast	2.94	0.89	2.05	0.69	0.97	1.97
Other	15.62	32.86	-17.24	20.05	37.47	-21.85
Global Total	71.84	87.25	-15.41	71.84	133.48	-61.64

Vortexa crude oil floating storage posted on Bloomberg 9am MT on Jan 20
Source: Vortexa, Bloomberg

1 | 5 | 25 | 3.8K

Dan Tsubouchi @Energy_Tidbits · Jan 19

Today, North Dakota estimates still 400,000 b/d of #Oil is still offline and warns "*A lot of times, these things take a month from the time that it hits until we see back to normal production*". Didn't specify #NatGas offline.

See 👇 SAF transcript.
#OOTT

"As of today, about 400,000 [b/d of North Dakota crude oil is still offline]" "it's very hard to put them back on.... A lot of times, these things take a month from the time that it hits until we see back to normal production" North Dakota's Lynn Helms.

SAF Group created transcript of comments by North Dakota Director of Mineral Resources, Lynn Helms and Justin J. Kringstad, Director North Dakota Pipeline Authority on the monthly Directors Cut webcast on Jan 19, 2024.
https://www.youtube.com/watch?v=TvU1CMMKPOo&t=2069s

Items in "italics" are SAF Group created transcript

At 6:15 min mark, Helms "*I do want to talk about what January is going to look like. It started in. Justin kind of tracks this for us. He has access to some numbers that let us look at production, not quite in real time, but pretty much as the days develop. The cold weather hit a week ago, January 11 was the first indication that this Arctic blast was going to have an effect on the oilpatch. By January 12, it looked like we were down almost 300,000 b/d. The worst of it was the 17th, two days go, when it looked like we were down about 700,000 b/d. So if you think 1.3 minus 700, that's way below a million barrels a day. It looks like as of yesterday, we were still down 500,000. And as of today, about 400,000. So we are coming back out of that. But we are probably still well below a million barrels a day of production in North Dakota.*"

At 7:52 min mark, Helms "*Once the wells get shut in or curtailed, then it becomes really, really difficult to bring them back on production, especially at minus 30 or minus 70 wind chills. People can't go out and work on the wells, so it's very hard to put them back on. It will be a long slow recovery. A lot of times, these things take a month from the time that it hits until we see back to normal production. So like I said December should be good but January is going to be a very very bad month in terms of production numbers. We still think it will be good in terms of gas capture. But all of the overall numbers are going to be down.*"

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

2 | 4 | 15 | 2.8K

Dan Tsubouchi @Energy_Tidbits · 1h

Kerry is right, Ford won't go back to only ICE after spending big $$ to retool for EVs.

but as @FerroTV said 👇. this is not misinfo on some future unknown. this is customer feedback. customers just don't want to buy anywhere near as many EVs

@lisaabramowicz1 @annmarie
#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · 2h
>
> Breaking.
>
> Ford cuts F-150 Lightning production to "achieve optimal balance of production, sales growth & profitability"
>
> ---
>
> Show more

https://media.ford.com/content/fordmedia/fna/us/en/news/2024/01/19/ford-adds-third-crew-to-meet-demand-for-bronco-and-ranger--reduc.html

FORD ADDS THIRD CREW TO MEET DEMAND FOR BRONCO AND RANGER, REDUCES F-150 LIGHTNING PRODUCTION

JAN 19, 2024 | DEARBORN

- Ford will create nearly 900 new jobs and add a third crew at Michigan Assembly Plant to increase production of the popular Bronco and Bronco Raptor sport-utility vehicles and the all-new Ranger and Ranger Raptor pickups
- The company continues to balance production to meet customer demand for its broad portfolio of trucks, utility vehicles and cars with a mix of gas, hybrid and electric powertrains
- Ford is reducing production of F-150 Lightning, the top-selling electric pickup in the U.S., to achieve the optimal balance of production, sales growth and profitability. Ford expects continued growth in global EV sales in 2024, though less than anticipated, and is preparing to launch next-generation EVs

DEARBORN, Mich., Jan. 19, 2024 – Ford Motor Company announced plans to create nearly 900 new jobs as part of a new third crew at Michigan Assembly Plant in Wayne to meet demand for the popular Bronco and Bronco Raptor and the all-new Ranger and Ranger Raptor.

The company is moving nimbly across its global footprint to capitalize on its balanced lineup and serve customers with the right mix of gas-powered, hybrid and electric vehicles, while optimizing financial returns.

In addition to nearly 900 net new hires, the new 1,600-person third crew at Michigan Assembly Plant will also include approximately 700 employees from Ford's Rouge Complex in Dearborn who applied for job openings.

Ford is adding the manpower this summer to support planned future volume increases for vehicle lines assembled at the plant. The all-new Ranger and Ranger Raptor are on track to launch this year. Michigan Assembly Plant will transition to producing vehicles seven days a week versus five currently, with three crews working two shifts.

Matching F-150 Lightning production to customer demand

The company also has capacity available to scale production of gas-powered and hybrid F-150 trucks based on customer demand.

Ford was America's No. 2 best-selling electric vehicle brand in 2023, and F-150 Lightning is America's best-selling electric truck with sales up 55% in 2023 and further growth forecast for 2024.

"We are taking advantage of our manufacturing flexibility to offer customers choices while balancing our growth and profitability. Customers love the F-150 Lightning, America's best-selling EV pickup," said Ford President and CEO Jim Farley. "We see a bright future for electric vehicles for specific consumers, especially with our upcoming digitally advanced EVs and access to Tesla's charging network beginning this quarter."

Approximately 1,400 employees will be impacted as the Rouge Electric Vehicle Center transitions to one shift effective April 1. Roughly 700 will transfer to Michigan Assembly Plant and the others will be placed in roles at the Rouge Complex or other facilities in Southeast Michigan, or take advantage of the Special Retirement Incentive Program agreed to in the 2023 Ford-UAW contract.

A few dozen employees could be impacted at component plants supporting F-150 Lightning production, depending on the number of employees who apply for the Special Retirement Incentive Program. Ford would provide placements for impacted employees within Southeast Michigan.

Dan Tsubouchi @Energy_Tidbits · 2h

Breaking.

Ford cuts F-150 Lightning production to "achieve optimal balance of production, sales growth & profitability"

Did customers speak or will Kerry 👇 blame this on EV misinformation?

#EnergyTransition will take longer and #Oil #Gasoline needed for much longer.
#OOTT

https://media.ford.com/content/fordmedia/fna/us/en/news/2024/01/19/ford-adds-third-crew-to-meet-demand-for-bronco-and-ranger--reduc.html

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> **Dan Tsubouchi** @Energy_Tidbits · Jan 17
>
> 
>
> #Oil #NatGas is needed for longer!
>
> 👇Kerry blames communities for wind delays & misinformation for lower EV sales. @FerroTV didn't buy EV misinfo....
> Show more

1 · 6 · 14 · 5.2K

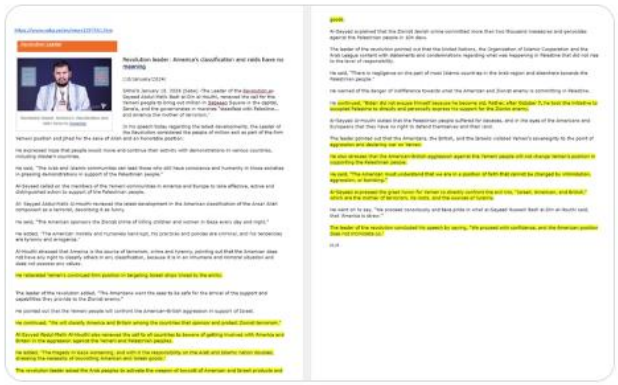
Dan Tsubouchi @Energy_Tidbits · 3h

Red Sea shipping disruptions to continue.

Houthis not deterred by US/UK missile attacks.

Houthis leader will continue to target ships in Red Sea and "*we proceed with confidence and the American position does not intimidate us*"

#OOTT



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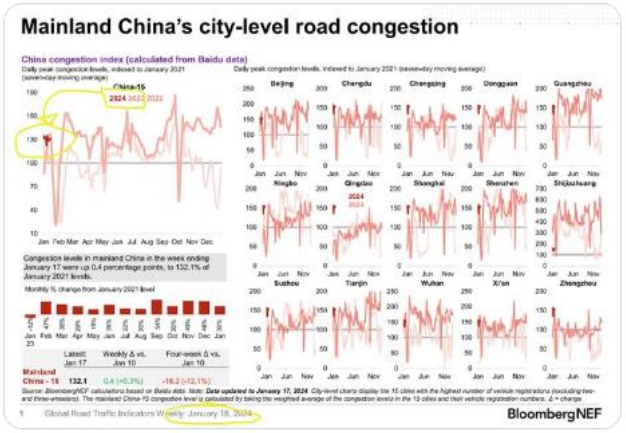
Dan Tsubouchi @Energy_Tidbits · 12h

Stalled China recovery.

Graph looks like China Baidu city-level road congestion for week ending Jan 17 is right at the same level as a year ago.

Reminder big city traffic drop coming up with Lunar New Year.

Thx @BloombergNEF. #OOTT



3 · 3 · 1.7K

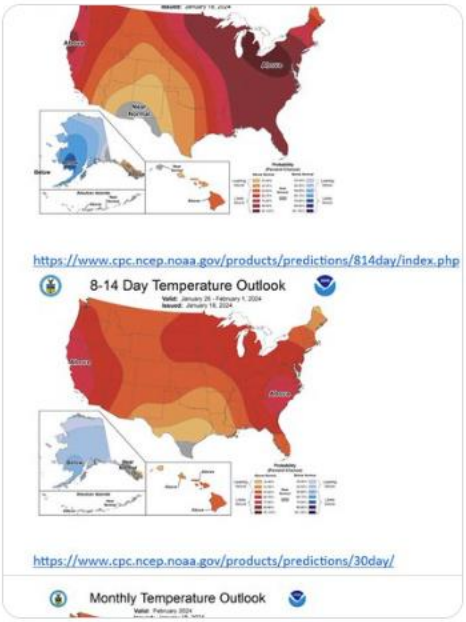
Dan Tsubouchi @Energy_Tidbits · 12h

HH down $0.61 since Jan 12, looks like more HH #NatGas price weakness ahead.

@NOAA updated 6-10 & 8-14 day cover Jan 24-Feb 1, calls for warmer than normal end to Jan.

@NOAA updated Feb outlook calls for a little warmer than normal Feb.

#OOTT



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Dan Tsubouchi @Energy_Tidbits · 23h

For those not near their laptops. @EIAgov just released at 9:00am MT its #Oil #Gasoline #Distillates inventory as of Jan 12. Table below compares EIA data vs @business expectations and vs @APIenergy yesterday. Prior to release, WTI was $73.30. #OOTT

Oil/Products Inventory Jan 12: EIA, Bloomberg Survey Expectations, API

(million barrels)	EIA	Expectations	API
Oil	-2.49	-0.85	0.48
Gasoline	3.08	2.50	4.86
Distillates	2.37	1.90	5.21
	2.96	3.55	10.55

Note: Oil is commercial so builds in +0.6 mmb in SPR for the Jan 12 week
Note: Included in the oil data, Cushing had a 2.10 mmb draw for Jan 12 week
Source EIA, Bloomberg
Prepared by SAF Group https://safgroup.ca/news-insights/

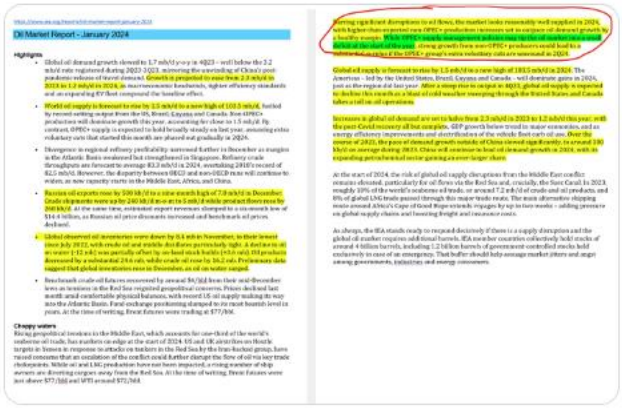
3 5 1.4K

Dan Tsubouchi @Energy_Tidbits · Jan 18

#Oil price higher or lower on Feb 28?

No question, negative messaging in @IEA OMR Jan.

But despite macro economic, EVs impact, etc, **OVERLOOKED** is "*OPEC+ supply management policies may tip the oil market into a small deficit at the start of the year*" ie #OPEC cuts worked.
#OOTT



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Dan Tsubouchi @Energy_Tidbits · Jan 17

Great nine months for Japanese stocks post #WarrenBuffet @BeckyQuick Apr 12 interview.

> **Dan Tsubouchi** @Energy_Tidbits · May 18, 2023
>
> 
> The #WarrenBuffett effect is still working.
>
> @business "foreigners loving Japanese stocks. positive flows into equities for 7th straight week"
> ...
> Show more

1 4 5 3.6K

Dan Tsubouchi @Energy_Tidbits · Jan 17

Today's reminder of wipe out of Chinese consumer "wealth" is $6 trillion stock wipeout combined drop in mainland China, HK market cap reports @business.

Yesterday's reminder was continued drop in new and 2nd hand home prices.

No wonder Chinese consumers are hesitant!
#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Jan 16
>
> 
>
> China economy negative.
>
> New-home prices in 70 cities in Dec down 0.45% MoM, Nov was down 0.37% MoM. steepest drop since Feb 2015....
> Show more

5 8 4K

Dan Tsubouchi @Energy_Tidbits · Jan 17

Foreign investors want to see something real that points to a reasonable chance of a sustained China recovery. Until then, more are moving to the sidelines.

Thx @business.
#OOTT

1 1 2 1.8K

Dan Tsubouchi @Energy_Tidbits · Jan 17

#Oil #NatGas is needed for longer!

👇 Kerry blames communities for wind delays & misinformation for lower EV sales. @FerroTV didn't buy EV misinfo.

BUT the unsaid message is #EnergyTransition is taking longer, costing more and & is bumpy road.

@lisaabramowicz1 @annmarie
#OOTT

SAF Group created transcript of comments by John Kerry (US climate envoy) with Lisa Abramowicz, Jonathan Ferro and Annmarie Hordern from Davos on Jan 17, 2024. https://www.bloomberg.com/news/videos/2024-01-17/kerry-on-climate-change-election-middle-east-unrest

Items in "*Italics*" are SAF Group created transcript

At 5:41 min mark, Abramowicz "Joe Biden has talked a lot about electric vehicles but we've seen a lot of companies pull back from electric vehicle production because there isn't demand, do you get the sense there is a successful coherent policy that is being prescribed by Joe Biden to achieve what you are talking about while also pumping record amounts of oil?" Kerry "Yes. There has been a very very clear policy, which regrettably has been attacked by people who are engaged in high levels of disinformation. They have been trying to scare people about the range of vehicles. So there's range anxiety out there. But in addition to that, you've had some pull back because communities aren't moving fast enough to give permitting to deploy some of the renewables that we need. So you've had wind farms that were going to be built that have now taken years longer than that was calculated in making the deals. And people have had to recalculate now how that deal is going to work. So the answer is we have to all of us have to embrace this transition. If we're going to take five and ten years and have years of litigation over whether or not you're going to have a renewable plant somewhere nearby, we're in trouble. We've not going to get there. And we have to accelerate that and that's a lot of the message right here in Davos." Ferro "Just to jump in, it's difficult for me to believe that the poor EV sales are a consequence of a misinformation campaign about range anxiety. Let's take Hertz. Not my view, view of the car rental company. They came out and they're going to dump 20,000 EV cars. They just don't talk about rebalancing supply with demand, they talk about the cost of carry. It's really expensive to keep these vehicles." Kerry "Sure." Ferro "It's really expensive to go and buy one. I think what we're seeing is a reality check, not just about the ultimate destination, but the pace at which we get there. Reality check because for most every day Americans, they can't afford this." Kerry "Let me tell you what's happening. The price is going down as the price of renewables has gone down. The price of renewable, solar, has gone down 83% in the last years. The price of wind has gone down 50% in the last years. The price of Lithium has gone down something like 97% in the last years. And we do need to send stronger demand signals to the market, place. Now we have an entity here that we've created a number of years ago called the first movers coalition. We have 100 of the top corporations of the world in this first movers coalition. That includes Apple, Microsoft, Salesforce, Boeing, FedEx, Ford, General Motors. A whole bunch of major American and other international companies. And they have agreed they're going to pay a Green Premium, voluntarily, in order to send a market signal to have green steel created now. Volvo has said we'll buy 10% of our steel is going to be green. So they're making green steel. Cement is now on sale, Lafarge Holcim, largest cement dealer in the world, they're making green cement. And it's better cement, people are buying it not because it's green, because it is better. So we're seeing a movement towards a rational transition with those biggest companies. And I'll tell you if the CEOs of those companies can persuade their boards and their shareholders that this is a valuable enterprise, then more people are going to buy into this over a period of time. This is a transition, it doesn't have to happen overnight. There will be ups and downs. There will be bumps in the road, but I'm telling you, EVs now, there is sufficient level of penetration, about 92% in Norway. Major levels in China. The front page of the Economist has a big picture, you know, electric vehicles from China coming in towards the United States. And those are selling for something like $22,500. And it's going to become the bone of contention. You watch. We'll have some discussions about that. But the point I make is this will even out over time. General Motors and Ford and Mercedes and Volkswagen and

1 7 14 8.9K

Dan Tsubouchi @Energy_Tidbits · 30m

#OPEC must love it.

Biden 1st 4 days went after GoM drilling & Fed lands fracking as policies to hit demand meant didn't need #Oil supply

Today, Ker***ry "policy neces***sity" for oil growth to keep prices low so don't have "revolutions" around the world.

Thx @lisaabramowicz1 #OOTT

> ***"It's a policy necessity. Because you obviously can't shut down the economies of the world and be ridiculous and sort of say oh okay, you're going to affect [Oil] demand without affecting supply at the same time. You've got to have a broad approach." John Kerry***
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> SAF Group created transcript of comments by John Kerry (US climate envoy) with Lisa Abramowicz, Jonathan Ferro and Annmarie Hordern from Davos on Jan 17, 2024. https://www.bloomberg.com/news/videos/2024-01-17/kerry-on-climate-change-election-middle-east-unrest
>
> Items in *"italics"* are SAF Group created transcript
>
> At 4:25 min mark, Abramowicz *"at the same time, the US is pumping more than 13 million barrels of oil per day. It is a record amount. It has been credited for offsetting some of the geopolitical risk. Do you think that's a policy failure or policy success?* Kerry *"It's a policy necessity. Because you obviously can't shut down the economies of the world and be ridiculous and sort of say oh okay, you're going to affect demand without affecting supply at the same time. You've got to have a broad approach. That's what the Administration is trying to do. For the moment, you have to try to keep the economies stable and keep the price low enough that you don't have revolutions in countries all around the world because the gas price is at 10 bucks a gallon, whatever it's going to be. So you've got to have some reasonableness. BUT, that has to be accompanied by a very clear set of policies that are moving in the direction of this transition away from fossil fuels that are therefore deploying renewables faster. That are putting new technologies out there in order to mitigate. If we don't do that, then it is a mistake and it contributes to the problem. I think we're going to do that and I think we're doing that already right now in many parts of the world."*
>
> Prepared by SAF Group https://safgroup.ca/news-insights/

4 3 1K

Dan Tsubouchi @Energy_Tidbits · 2h

Brent #Oil has had a small move up post this vessel being hit.

@business Brent graph is eastern time, which is 5 hrs behind UTC time.

@UK_MTO said incident was at 12:35pm ET and they reported it 1:45pm ET.

#Houthis #OOTT

> **Dan Tsubouchi** @Energy_Tidbits · 2h
>
> Breaking
>
> Another vessel reported hit by drone!
>
> #Houthis...
>
> Show more

2 3 1.4K

Dan Tsubouchi @Energy_Tidbits · 2h

Breaking

Another vessel reported hit by drone!

#Houthis

Thx @UK_MTO

> **United Kingdom Maritime Trade Operations (UKMT** @UK_MTO · 3h
>
> UKMTO WARNING 013/JAN/2024
>
> INCIDENT 015 – ATTACK UPDATE 002
>
> ukmto.org/indian-ocean/p.....
> Show more
>
> **UKMTO WARNING 013/JAN/2024**
>
> **INCIDENT 015 – ATTACK UPDATE 002**
>
> **Incident Date:** 17/JAN/2024
>
> **Incident Time:** 1735UTC
>
> **Source: Master**
> **Issued: 17/JAN/24 1845UTC**
>
> UKMTO has received a report of an incident 60NM South East of Aden, Yemen.
>
> Master reports vessel has been hit on the port side by an Uncrewed Aerial System. Master reported there was fire onboard which has now been extinguished. Vessel and crew are safe and proceeding to next port of call.
>
> Vessels are advised to transit with caution and report any suspicious activity to UKMTO.
>
> 
>

2 5 2.8K

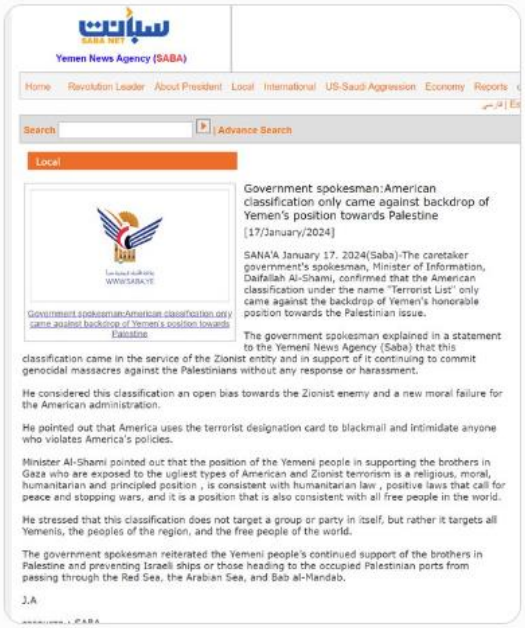
Dan Tsubouchi @Energy_Tidbits · 2h

Red Sea conflict continuing.

US re-designates Houthis as "Specially Designated Global Terrorist.

Houthis to continue "p*reventing Israeli ships or those heading to the occupied Palestinian ports from passing through the Red Sea, the Arabian Sea, and Bab al-Mandab".*

#OOTT



Yemen News Agency (SABA)

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Local

Government spokesman:American classification only came against backdrop of Yemen's position towards Palestine

[17/January/2024]

SANA'A January 17. 2024(Saba)-The caretaker government's spokesman, Minister of Information, Daifallah Al-Shami, confirmed that the American classification under the name "Terrorist List" only came against the backdrop of Yemen's honorable position towards the Palestinian issue.

The government spokesman explained in a statement to the Yemeni News Agency (Saba) that this classification came in the service of the Zionist entity and in support of it continuing to commit genocidal massacres against the Palestinians without any response or harassment.

He considered this classification an open bias towards the Zionist enemy and a new moral failure for the American administration.

He pointed out that America uses the terrorist designation card to blackmail and intimidate anyone who violates America's policies.

Minister Al-Shami pointed out that the position of the Yemeni people in supporting the brothers in Gaza who are exposed to the ugliest types of American and Zionist terrorism is a religious, moral, humanitarian and principled position , is consistent with humanitarian law , positive laws that call for peace and stopping wars, and it is a position that is also consistent with all free people in the world.

He stressed that this classification does not target a group or party in itself, but rather it targets all Yemenis, the peoples of the region, and the free people of the world.

The government spokesman reiterated the Yemeni people's continued support of the brothers in Palestine and preventing Israeli ships or those heading to the occupied Palestinian ports from passing through the Red Sea, the Arabian Sea, and Bab al-Mandab.

J.A

1 3 935

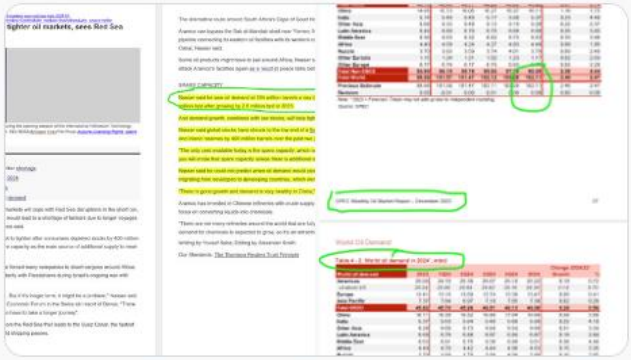
Dan Tsubouchi @Energy_Tidbits · 9h ·

Be interesting to see if OPEC MOMR Jan tweaks up 2023 #Oil demand & tweaks down 2024 demand?

Aramco CEO says 2024 demand of 104 mmbd, growth of "roughly" 1.5 mmbd, after 2023 growth of 2.6 mmbd.

OPEC MOMR Dec: 2023 demand +2.46 mmbd YoY, 2024 +2.25 mmbd to 104.36 mmbd.

#OOTT

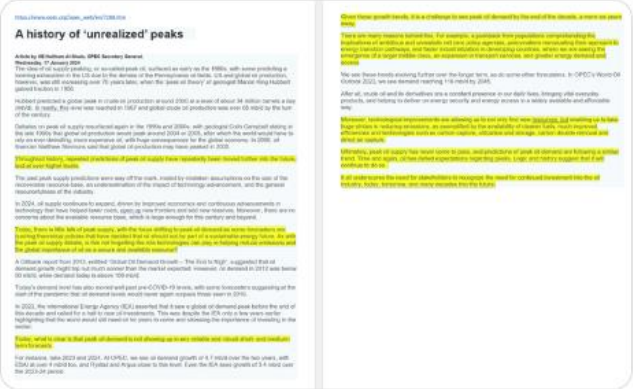


3 1.1K

Dan Tsubouchi @Energy_Tidbits · 10h

Peak #Oil.

"Ultimately, peak oil supply has never come to pass, and predictions of peak oil demand are following a similar trend. Time and again, oil has defied expectations regarding peaks. Logic and history suggest that it will continue to do so." OPEC Secretary General
#OOTT



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Dan Tsubouchi @Energy_Tidbits · 19h

China population down 2.08 million YoY to 1.40967b at 12/31/23

Population declined for 2nd consecutive year.

In 2022, was down 0.85 million YoY to 1.41175b at 12/31/22.

Peak population was 12/31/21 at 1.41260b.

National Bureau of Statistics data coutesy of @business
...
Show more

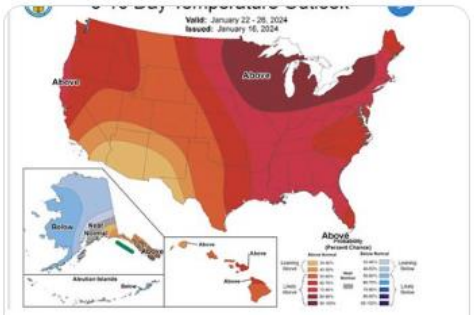
5 4 2.2K

Dan Tsubouchi @Energy_Tidbits · 19h

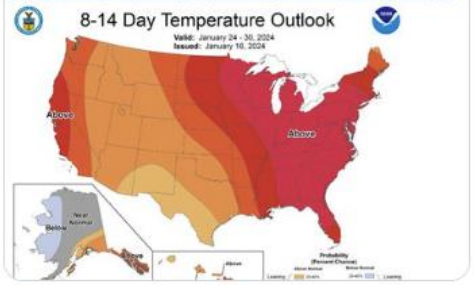
Here's why HH #NatGas prices fell $0.41 to $2.90 vs Friday.

@NOAA's updated 6-10 & 8-14 day temperatures outlook call for warmer than normal temps across all of the US to end Jan, which is normally peak winter driven #NatGas demand.

#OOTT



https://www.cpc.ncep.noaa.gov/products/predictions/814day/index.php



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Dan Tsubouchi @Energy_Tidbits · 20h

China economy negative.

New-home prices in 70 cities in Dec down 0.45% MoM, Nov was down 0.37% MoM. steepest drop since Feb 2015.

2nd hand market also weak, sliding 0.79% in Dec, same pace as Nov.

Thx @business C. Zhu, E. Dong, @YvonneManTV @DavidInglesTV.
#OOTT

Source: Bloomberg

2 · 1 · 1.6K

Dan Tsubouchi @Energy_Tidbits · Jan 16

The #EnergyTransition problem/reality.

Getting rid of fossil fuels but unrealistic optimistic view on returns on renewables?

"i*f you're going for* ***renewables,*** *then it's a long-term investment that* ***will pay back many times***" German special climate envoy.

#NatGas will be needed...
Show more

"right now the signal is very clear that if you are investing in fossil fuel, it is a stranded asset. It means it won't be profitable for that long. But if you're going for renewables, then it's a long-term investment that will pay back many times." **Germany special climate envoy.**

SAF Group created transcript of comments by Jennifer Morgan, Germany's state secretary and special envoy for international climate action with CNBC's Amanda Drury at Davos on Jan 16.
https://www.cnbc.com/video/2024/01/16/german-state-secretary-says-fossil-fuels-are-a-stranded-asset-and-wont-be-profitable-for-long.html?&qsearchterm=davos

Items in "italics" are SAF Group created transcript

On how do you ensure countries are delivering on their Paris commitments. At 1:10 min mark, Morgan *"... I think one of the best ways though is that the countries that are moving forward are the ones that are getting the investments. Right, so right now the signal is very clear that if you are investing in fossil fuel, it is a stranded asset. It means it won't be profitable for that long. But if you're going for renewables, then it's a long-term investment that will pay back many times. So I think part of the accountability issue is actually those countries that are moving forward with those kinds of renewable laws get the investments. And that a lot of discussion here at Davos."*

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

2 · 8 · 1.9K

Dan Tsubouchi @Energy_Tidbits · Jan 16

More Red Sea missiles, this time US on Houthis.

"*U.S. military on Tuesday carried out a new strike in Yemen against four Houthi anti-ship ballistic missiles, two U.S. officials told Reuters*" reports @idreesali114 @phildstewart

#OOTT

REUTERS®

Exclusive: US targets Houthi anti-ship missiles in new strike on Yemen -officials

From reuters.com

2 920

Dan Tsubouchi @Energy_Tidbits · Jan 16

Headline $CVX CEO replies "*it can go higher*" when asked if US #Oil supply can go higher.

BUT caveats go higher saying if US were to return to "*ways of the past*" ie. focus on growth instead of less capex/more return of cash to shareholders.

See 👇 transcript!
Thx...
Show more

"we've seen companies throttle back capital spending, return cash to shareholders more consistently. If they were to return to ways of the past, you could see that number [US oil supply] go higher. I don't see that going on right now. But the US has upside." Chevron CEO

SAF Group created transcript of comments by Chevron CEO Mike Wirth with Bloomberg's Lisa Abramowicz and Jonathan Ferro on Bloomberg Surveillance on Jan 16, 2024.

https://www.bloomberg.com/news/videos/2024-01-16/chevron-ceo-surprised-red-sea-hasn-t-impacted-oil-prices-video

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

At 1:54 min mark, Wirth "*Certainly US supply [oil] growth has surprised people to the upside. And I think it has helped calm markets a little bit. But it certainly has no ability to cover up a big disruption in the Middle East. That will fundamentally change the supply dynamics in the world if you were to see shipping halted, disrupted or seriously disturbed. And so I do think that the US supply has helped kind of calm markets over the longer cycle but there is no capacity to respond in the short term to an interruption like that.*"

Ferro "*13 million barrels a day. Can we just sort of frame this just for a moment. How much potential is left. How much higher can that number go?*" Wirth "*It can go higher. The US is blessed with an abundant resource base. The constraints tend to be right now the capital spending of suppliers. How fast suppliers will go. A decade ago, companies in our industry were growing too fast in the Permian Basin, in particular, and investors were unhappy with that. I think we've seen companies throttle back capital spending, return cash to shareholders more consistently. If they were to return to ways of the past, you could see that number go higher. I don't see that going on right now. But the US has upside.*"

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

3 12 1.8K

Dan Tsubouchi @Energy_Tidbits · Jan 16

"*we've had AI draft writing of some of our research reports.* ***And it's not to replace the person who's writing it....***" BNY Mellon CEO.

That may be true but what about the young research associate who updates the model and often does the 1st draft for the publishing analyst? #OOTT

> ***"we've had AI draft writing of some of our research reports. And it's not to replace the person who's writing it, they used to have to get up at 4am in order to write the report, now they can get up at 5 because they've got a first draft courtesy of AI. That's an improvement".*** **BNY Mellon CEO Robin Vince**
>
> 
>
>
> SAF Group created transcript of comments by BNY Mellon CEO Robin Vince on Bloomberg Surveillance on Jan 16, 2024
>
> Items in "italics" are SAF Group created transcript.
>
> Vince *"... we've been deploying AI into our workforce and into our products. I will give you two quick examples..... And an example of improving quality of life exactly to your question, we've had AI draft writing of some of our research reports. And it's not to replace the person who's writing it, they used to have to get up at 4am in order to write the report, now they can get up at 5 because they've got a first draft courtesy of AI. That's an improvement".*
>
> Prepared by SAF Group https://safgroup.ca/news-insights/

1 · 1 · 2 · 1.8K

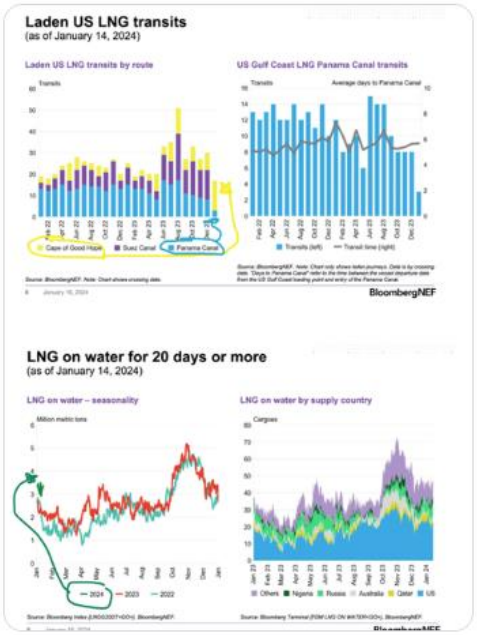
Dan Tsubouchi @Energy_Tidbits · Jan 16

More US LNG now having to go around Cape of Good Hope and more US LNG on the water for longer,

First, Panama Canal backup pushed more US LNG to Suez. Now, US LNG avoiding Suez due to #Houthis.

Thx @BloombergNEF LNG Trade Weekly Jan 16, 2024

#OOTT #NatGas



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Dan Tsubouchi @Energy_Tidbits · Jan 16

Another vessel reportedly hit by unknown object in Red Sea reports @UK_MTO

#OOTT #Oil #Houthi

> **United Kingdom Maritime Trade Operations (UKI** @UK_MT · Jan 16
>
> UKMTO WARNING 011/JAN/2024 Update 001
>
> Category: ATTACK
>
> ukmto.org/indianocean/pr.....
> Show more

1 · 4 · 2.2K

Dan Tsubouchi @Energy_Tidbits · Jan 16

"Russian Crude Flows Defy Red Sea Chaos to Exceed OPEC+ Target"

Great weekly recap of Russian #Oil shipments from @JLeeEnergy @business.

#OOTT

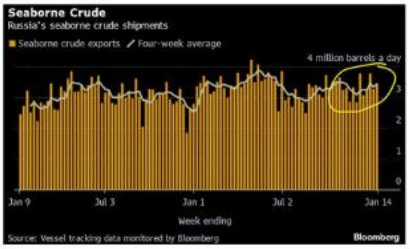
2024-01-16 12:13:39.975 GMT

By Julian Lee

(Bloomberg) -- Russia's seaborne crude shipments shrugged off attacks on shipping in the southern Red Sea to register gains in the latest week, as Moscow failed to match export cuts that it pledged to its OPEC+ allies.

About 3.43 million barrels a day of crude were shipped from Russian ports in the four weeks to Jan. 14, tanker-tracking data monitored by Bloomberg show. That was up by 94,000 barrels a day from the period to Jan. 7.

The more volatile weekly average rose by 166,000 barrels a day to 3.45 million. While that was 134,000 barrels below the average export level seen by Bloomberg during the benchmark months of May and June, it was still less than half the cut Moscow pledged to its OPEC+ partners for the first quarter of 2024.



Russia has said it will deepen its oil export cuts to 500,000 barrels a day below the May-June average during the first quarter, 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. The four-week average crude measure was only about

6 7 2K

Dan Tsubouchi @Energy_Tidbits · Jan 16

Ouch!

"not very optimistic when it comes to returns this yr & the next few yrs" "i do not see them [rates] coming down as fast as many other people" "there is more underlying inflationary pressure" Norway wealth fund CEO

Thx @flacqua #OOTT
bloomberg.com/news/videos/20...

"it doesn't look very good out there actually and we are not very optimistic when it comes to returns this year and the next few years, actually. And if we start with rates internationally, I do not see them coming down as fast as many other people" **Norway wealth fund CEO.**

SAF Group created transcript of comments by Norway Wealth Fund CEO Nicolai Tangen with Bloomberg's Francine Lacqua on Bloomberg on Jan 16, 2024. https://www.bloomberg.com/news/videos/2024-01-16/norway-wealth-fund-ceo-on-market-risks-video

Items in "italics" are SAF Group created transcript

At 0.05 min mark, Tangen *"No, I agree it doesn't look very good out there actually and we are not very optimistic when it comes to returns this year and the next few years, actually. And if we start with rates internationally, I do not see them coming down as fast as many other people. I think we have some underlying inflationary pressures. We've got wages now, wage demand really high in a lot of countries and so that could lead to some spiraling of inflation going forward. Then we have some climate effects which are negative on pricing. You have geopolitics, trade routes, you still have a lot of things. It's just not a very happy cocktail."*

At 1:40 min mark, Tangen *"Money is not free anymore and I don't' think it will be for a longer period of time..... But probably, we've seen the big jump in cost of capital so, from here, it's probably going to normalize a bit going forward".*

At 4:55 min mark, Tangen. *"I just think there is more underlying inflationary pressure. You know and I think it's going to stay there for longer. And I do think the international central banks will be very, very careful in cutting rates too quickly because they were too slow in putting them up."*

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

4 · 4 · 1.9K

Dan Tsubouchi @Energy_Tidbits · Jan 16

BofA CEO Moynihan on rate cuts.

"*we have 4 rate cuts, not the 6 or 7 in the market for this year 24 & 25, which leaves you at 3% plus Fed Funds rate, probably have a 4 and handle on the 10-yr...* ***it's going to take awhile for the system to adjust to that.***"

Thx @SquawkCNBC #OOTT

1 · 5 · 12 · 3.3K

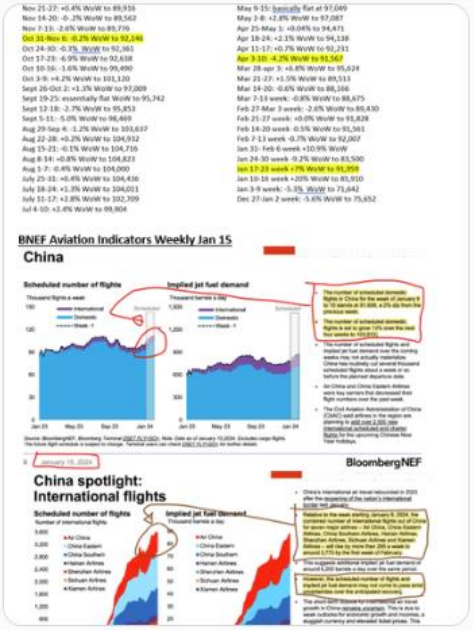
Dan Tsubouchi @Energy_Tidbits · Jan 15

Stalled China recovery/consumers still cautious.

China scheduled domestic flights -1.6% WoW to 91,926, gave back 1/2 of prior wk +3.3% gain.

At 91,926 flts, back to yr ago Jan 17-23, 2023 level after China reopened post Covid restrictions.

Thx @BloombergNEF Claudio Lubis #OOTT



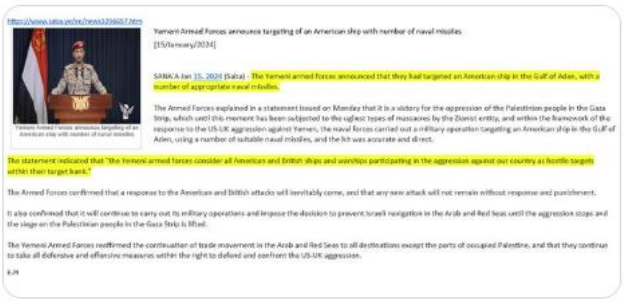
3 1 3K

Dan Tsubouchi @Energy_Tidbits · Jan 15

Houthis warning post today's hitting a US container ship.

"" *the Yemeni armed forces consider* ***all American and British ships*** *and warships participating in the aggression against our country as hostile targets*".

#OOTT



U.S. Central Command @CENTCOM · Jan 15

On Jan. 15 at approximately 4 p.m. (Sanaa time), Iranian-backed Houthi militants fired an anti-ship ballistic missile from Houthi-controlled areas of Yemen and struck the M/V Gibraltar Eagle, a Marshall Islands-flagged, U.S.-owned and operated container ...
Show more

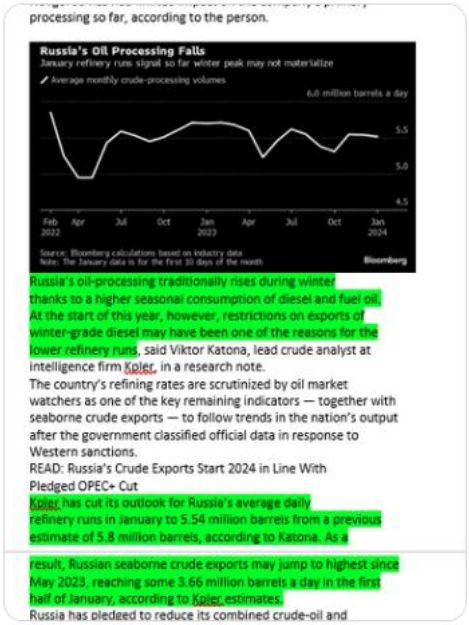
2 4 3.7K

Dan Tsubouchi @Energy_Tidbits · Jan 15

Less than normal Russia refining runs = more #Oil than normal for export.

Russian refining volumes not showing signs of normal seasonal ramp up.

Thx @ja_herron @business @vikatona @Kpler
#OOTT


processing so far, according to the person.

Russia's oil-processing traditionally rises during winter thanks to a higher seasonal consumption of diesel and fuel oil. At the start of this year, however, restrictions on exports of winter-grade diesel may have been one of the reasons for the lower refinery runs, said Viktor Katona, lead crude analyst at intelligence firm Kpler, in a research note.

The country's refining rates are scrutinized by oil market watchers as one of the key remaining indicators — together with seaborne crude exports — to follow trends in the nation's output after the government classified official data in response to Western sanctions.

READ: Russia's Crude Exports Start 2024 in Line With Pledged OPEC+ Cut

Kpler has cut its outlook for Russia's average daily refinery runs in January to 5.54 million barrels from a previous estimate of 5.8 million barrels, according to Katona. As a result, Russian seaborne crude exports may jump to highest since May 2023, reaching some 3.66 million barrels a day in the first half of January, according to Kpler estimates.

Russia has pledged to reduce its combined crude-oil and

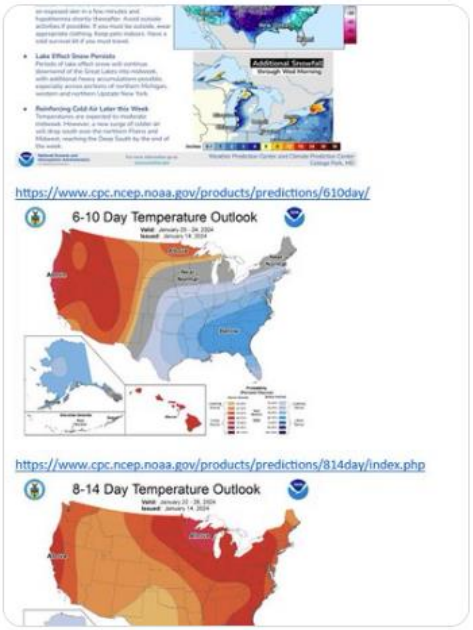
2 8 1.4K

Dan Tsubouchi @Energy_Tidbits · Jan 14

Arctic blast thru Tues should keep HH #NatGas solid **BUT** forecast to turn to above normal temp across the US for last 10 days of Jan could see recent gains given back.

Thx @NOAA @NWSWPC

#OOTT



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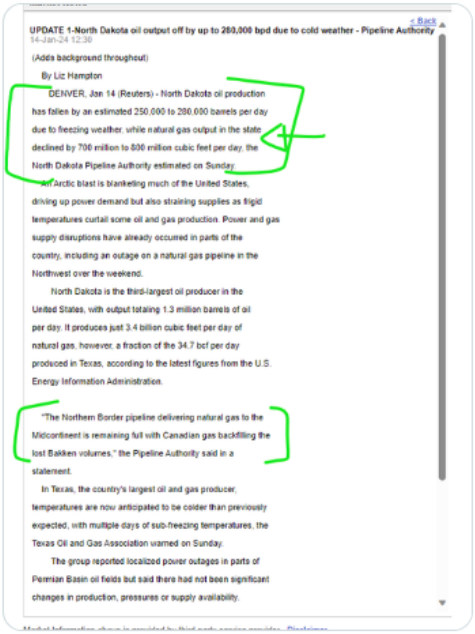
Dan Tsubouchi @Energy_Tidbits · Jan 14

Brutal cold in North Dakota, North Dakota Pipeline Authority estimates has shut in 250-280,000 b/d of #Oil and 0.7-0.8 bcf/d of #NatGas reports @LizHampton1986.

Thx @iNews24 for flagging.
#OOTT



UPDATE 1-North Dakota oil output off by up to 280,000 bpd due to cold weather - Pipeline Authority

14-Jan-24 12:30

(Adds background throughout)

By Liz Hampton

DENVER, Jan 14 (Reuters) - North Dakota oil production has fallen by an estimated 250,000 to 280,000 barrels per day due to freezing weather, while natural gas output in the state declined by 700 million to 800 million cubic feet per day, the North Dakota Pipeline Authority estimated on Sunday.

An Arctic blast is blanketing much of the United States, driving up power demand but also straining supplies as frigid temperatures curtail some oil and gas production. Power and gas supply disruptions have already occurred in parts of the country, including an outage on a natural gas pipeline in the Northwest over the weekend.

North Dakota is the third-largest oil producer in the United States, with output totaling 1.3 million barrels of oil per day. It produces just 3.4 billion cubic feet per day of natural gas, however, a fraction of the 34.7 bcf per day produced in Texas, according to the latest figures from the U.S. Energy Information Administration.

"The Northern Border pipeline delivering natural gas to the Midcontinent is remaining full with Canadian gas backfilling the lost Bakken volumes," the Pipeline Authority said in a statement.

In Texas, the country's largest oil and gas producer, temperatures are now anticipated to be colder than previously expected, with multiple days of sub-freezing temperatures, the Texas Oil and Gas Association warned on Sunday.

The group reported localized power outages in parts of Permian Basin oil fields but said there had not been significant changes in production, pressures or supply availability.

> **iNews24** @iNews24 · Jan 14
> UPDATE 1-North Dakota oil output off by up to 280,000 bpd due to cold weather - Pipeline Authority ift.tt/HubvCfO

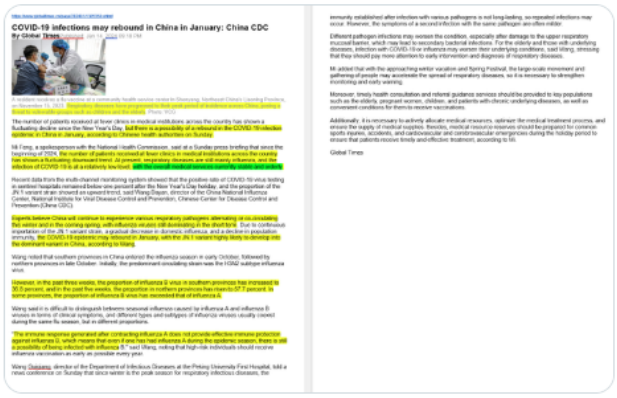
1 · 16 · 53 · 15K

Dan Tsubouchi @Energy_Tidbits · Jan 14

Doesn't seem like respiratory diseases, Covid, flu or other viruses are a major issue in China as "*the overall medical services currently stable and orderly*".

Of course that is with the caveat that this is China state media.

#OOTT



COVID-19 infections may rebound in China in January: China CDC

3 · 9 · 2.9K