FIPI

Federation of Indian Petroleum Industry

POLICY & ECONOMIC REPORT

OIL & GAS MARKET

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Executive Summary

According to World Bank, global growth is projected to grow at 2.4 % in 2024 and at 2.7 % in 2025; reflecting the lagged and ongoing effects of tight monetary policies to rein in decades-high inflation, restrictive credit conditions, and adverse global trade and investment. Advanced-economy growth is set to grow at 1.2 % in 2024 as growth in the United States slows, while euro area growth picks up slightly as lower inflation boosts real wages. Growth in emerging market and developing economies (EMDEs) is forecast to average 3.9 % a year over 2024-25.

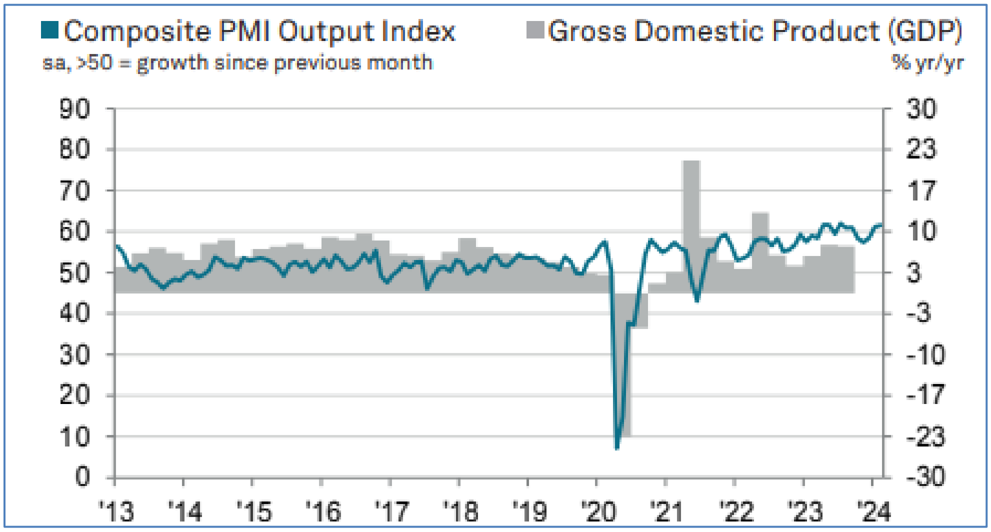
In case of India, the Reserve Bank of India's rate-setting panel has forecasted Indian economy to grow at 7 % in FY25. The Monetary Policy Committee (MPC) has forecast each of the quarters in FY25 to grow at 7.2 %, 6.8 %, 7 % and 6.9 % respectively. Indian economy remained resilient amidst a global economic slowdown, supported by vigorous consumer and government spending, a thriving services sector and increased manufacturing.

The Finance and Corporate Affairs Minister Smt. Nirmala Sitharaman, presented the Interim Union Budget for 2024-2025 in Parliament on 1st February 2024. The capital expenditure outlay for the next year is being increased by 11.1 % to Rs 11,11,111 crore, which would be 3.4 % of the GDP. As per the First Advance Estimates of National Income of FY 2023-24, India's real GDP is projected to grow at 7.3 %. This is also in line with the upward revision in growth projections for FY2023-24 by the RBI (in its December 2023 Monetary Policy Committee meeting) from 6.5 % to 7 %, prompted by strong growth in Q2 of FY2023-24. The fiscal deficit in 2024-25 is estimated to be 5.1 % of GDP.

The Interim Budget contains several announcements and strategies indicating directions and development approach for making India Viksit Bharat by 2047. Under Pradhan Mantri Suryodaya Yojana ("PMSY"), through rooftop solarization, one crore households will be enabled to obtain up to 300 units free electricity every month and provide substantial savings of INR 15,000 to INR 18,000 annually. For promoting climate resilient activities for blue economy 2.0, a scheme for restoration and adaptation measures, and coastal aquaculture and mariculture with integrated and multi-sectoral approach will be launched. Allocation of ₹600 crore for the National Green Hydrogen Mission, compared to the previous year's budget of ₹297 crore. For railways, three major economic railway corridor programmes will be implemented-energy, mineral and cement corridors, port connectivity corridors, and high traffic density corridors.

According to the HSBC India Manufacturing Purchasing Managers' Index, the headline HSBC Flash India Composite PMI Output Index rose from a final reading of 61.2 in January to 61.5 in February 2024.

Figure 1: India Output PMI Index



Source- HSBC

While the manufacturing PMI inched up to 56.7 in February 2024 from 56.5 in the previous month, the HSBC Flash India Services PMI Business Activity Index rose to 62 in February from 61.8 in January. Growth improved in both the manufacturing and services economies, attributing the upturn to buoyant demand conditions, investment in technology, efficiency gains, expanded clientele and favorable sales developments.

Retail inflation in India eased to 5.1% in January 2024 on an annual basis, according to data released by the Ministry of Statistics & Programme Implementation. The Consumer Price Index (CPI) inflation rural stood at 5.34% and the CPI urban was at 4.92%. Retail inflation in the food basket was at 8.3% in January 2024, down from 9.53% in the preceding month. According to the Monetary Policy Committee (MPC), CPI inflation is projected at 5.4 % for 2023-24 with Q4 at 5.0 %. Assuming a normal monsoon next year, CPI inflation for 2024-25 is projected at 4.5 % with Q1 at 5.0 %; Q2 at 4.0 %; Q3 at 4.6 %; and Q4 at 4.7 %. The MPC has decided to keep the policy repo rate unchanged at 6.50 %.

According to the latest data available from the Centre for Monitoring Indian Economy (CMIE), unemployment rate in India, among persons aged 15 years and above, fell sharply to 6.8 % in January 2024, which is the lowest recorded in 16 months. This is a significant fall of nearly 1.9 %age points from December's unemployment rate of 8.7 %.

As far as oil and gas sector is concerned, rude oil futures prices trended higher in January as selling pressure from speculators eased and market participants turned their focus to geopolitical tensions, along with supply disruptions in several regions due to unplanned outages. Oil prices were further buoyed by stronger-than-expected macroeconomic data, specifically from the US, and signs of robust physical market fundamentals.

In the first half of the month, oil futures prices steadied following the heavy selloffs registered in November and December, and were pricing in a narrower band, although volatility persisted. Oil supply disruptions caused by geopolitical and weather conditions in several regions offset the mixed sentiment toward the global macroeconomic picture. Selling pressure from money managers eased in the first half of January, and risk-off sentiment prevailed in the financial market, as participants awaited announcements from major central banks concerning monetary policies.

In the second half of January, oil prices rallied to nearly three-month highs driven by an improving economic outlook and escalating geopolitical tensions. The rally in futures prices was further buoyed by accelerated short covering from speculators rushing to close short positions. Market sentiment was bolstered by economic stimulus in China and positive US economic growth in Q4 2023, coupled with signs of easing inflation. The prevailing sentiment was reinforced by an IMF report projecting higher global economic growth for 2024, particularly in the US and China amid inflation easing. Additionally, a substantial drawdown in US crude stocks, along with escalating geopolitical tensions, provided further support for the price rally.

Natural gas spot prices at the US Henry Hub benchmark averaged $3.18 per million British thermal units (MMBtu) in January 2024. Henry Hub's natural gas prices rallied in January and recovered losses from the two previous months. Prices rose sharply by ~26.0%, m-o-m, on the back of colder weather across the US that increased demand for residential heating. The January gas draw brought US underground stores within the five-year average according to the US Energy Information Administration.

Economy in Focus

1. A snapshot of the global economy

Global economic growth

- According to World Bank, global growth is projected to grow at 2.4 % in 2024 and at 2.7 % in 2025; reflecting the lagged and ongoing effects of tight monetary policies to rein in decades-high inflation, restrictive credit conditions, and adverse global trade and investment.

- Advanced-economy growth is set to grow at 1.2 % in 2024 as growth in the United States slows, while euro area growth picks up slightly as lower inflation boosts real wages.

    - Further, investment growth would also remain subdued as sustained high real interest rates and restrictive credit conditions dampen business investment.

    - In 2025, growth in advanced economies is forecast to pick up to 1.6 % as the euro area continues to recover and U.S. growth edges up toward its long-term trend rate amid declining inflation and supportive monetary policy.

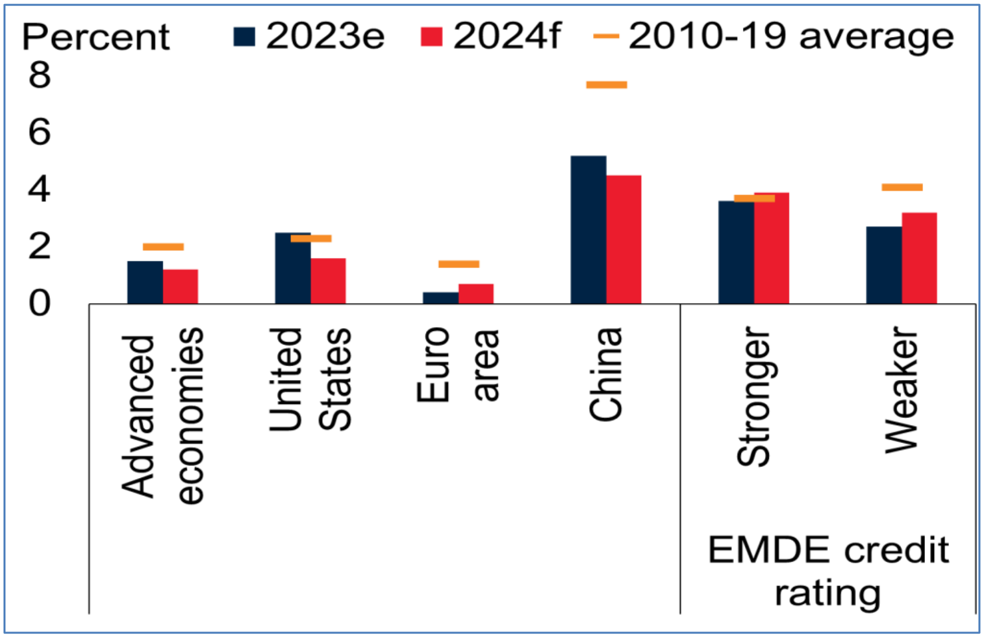
- Growth in emerging market and developing economies (EMDEs) is forecast to average 3.9 % a year over 2024-25.
    - China's growth is expected to slow from 5.2% in 2023 to 4.5% in 2024 and 4.3% in 2023, as lower consumer sentiment and a continued downturn in the property sector weigh on demand and activity.

    - Excluding China, EMDE growth is set to firm from 3.2 % in 2023 to 3.5 % this year and 3.8 % in 2025. This pickup reflects a rebound in trade and improving domestic demand in several large economies, as inflation continues to recede.

- The recent conflict in the Middle East, along with the Russian – Ukraine war crisis has heightened geopolitical risks. Conflict escalation could lead to surging energy prices, with broader implications for global activity and inflation.

- Other risks include financial stress related to elevated real interest rates, persistent inflation, weaker-than-expected growth in China, further trade fragmentation, and climate change-related disasters.

Figure 2: Growth by economy and EMDE credit rating

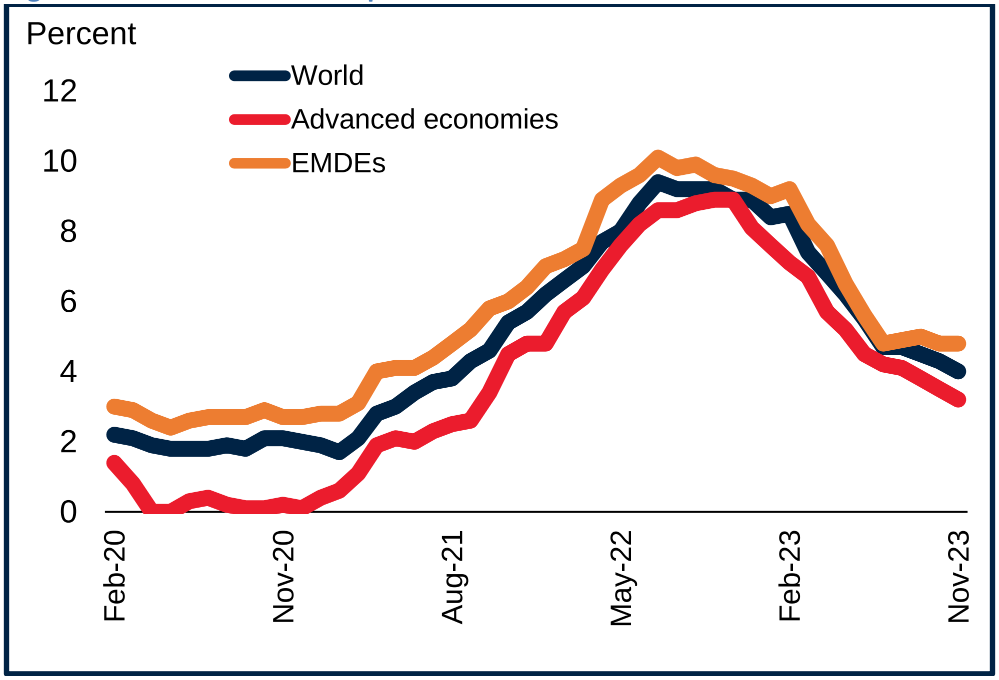


Source- World Bank

Global Inflation

- Global headline consumer price inflation declined substantially in 2023 to 4%; with rates at 3.2% in advanced economies and at 4.8% in EMDEs.

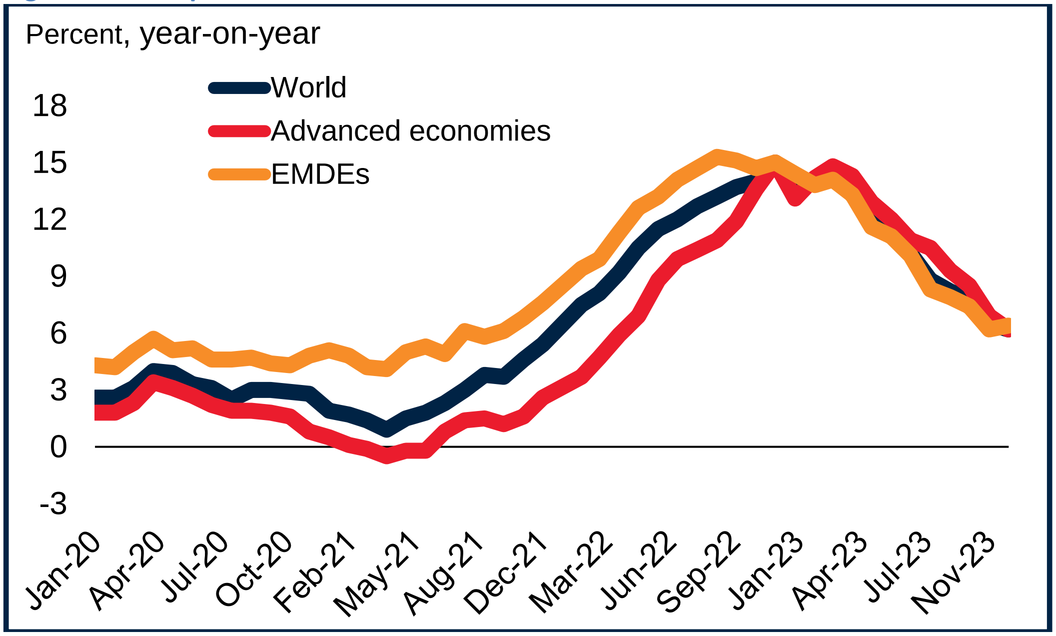
Figure 3: Headline consumer price inflation



Source- World Bank

- Moderating energy and food price inflation, along with slowing consumer demand for goods and the recovery of global supply chains, exerted significant downward pressure on goods inflation.
- Food prices—the biggest component of the agriculture price index—fell by 9 % in 2023, reflecting ample supplies of major crops, particularly grains. Food prices are expected to decline nearly 1 % in 2024 and 4 % in 2025. Key upside risks to food prices include increases in energy costs, and adverse weather events.

Figure 4: Food price inflation



Source- World Bank

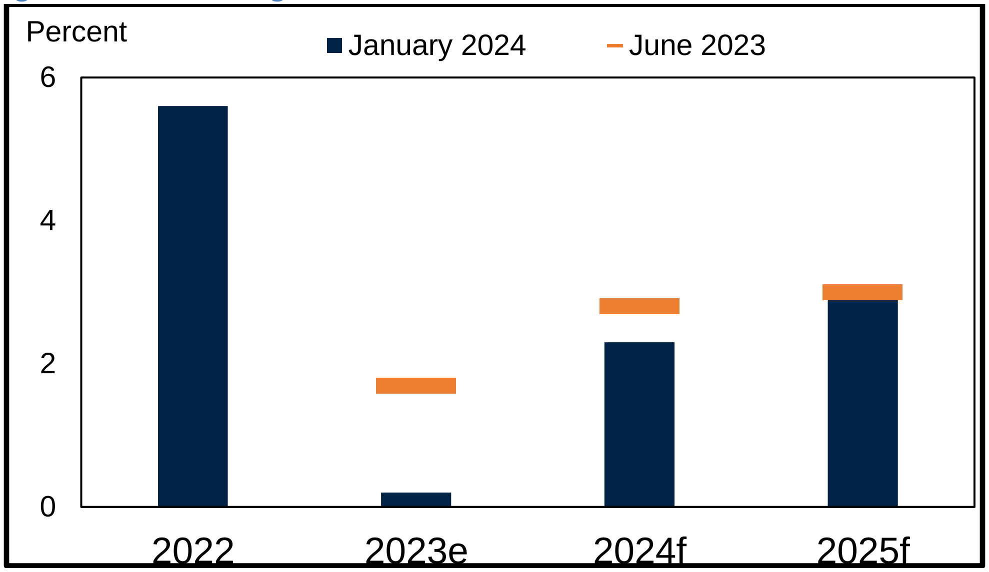
- Further, natural gas and coal prices declined considerably in 2023 as countries in Europe reduced energy demand and maintained gas inventories above 90 % of their storage capacity. Natural gas prices are expected to fall further in 2024 and 2025 as production increases, and as liquefied natural gas exports rise.

- The global headline inflation, on a year-on-year basis, is forecast to recede to 3.7 % in 2024 and 3.4 % in 2025; underpinned by the projected weakness in global demand growth and slightly lower commodity prices.

Global Trade

- Global trade in goods and services was virtually flat in 2023, growing by an estimated 0.2 %—the slowest expansion outside global recessions in the past 50 years.
- Goods trade contracted last year, reflecting declines in key advanced economies and deceleration in EMDEs, and mirroring the sharp slowdown in the growth of global industrial production.
- Global trade is projected to pick up to 2.3 % in 2024, mirroring projected growth in global output.
- However, geopolitical uncertainty, especially considering ongoing armed conflicts, and the possibility of a more slowdown in China pose downside risks to the trade outlook.

Figure 5: Global trade growth

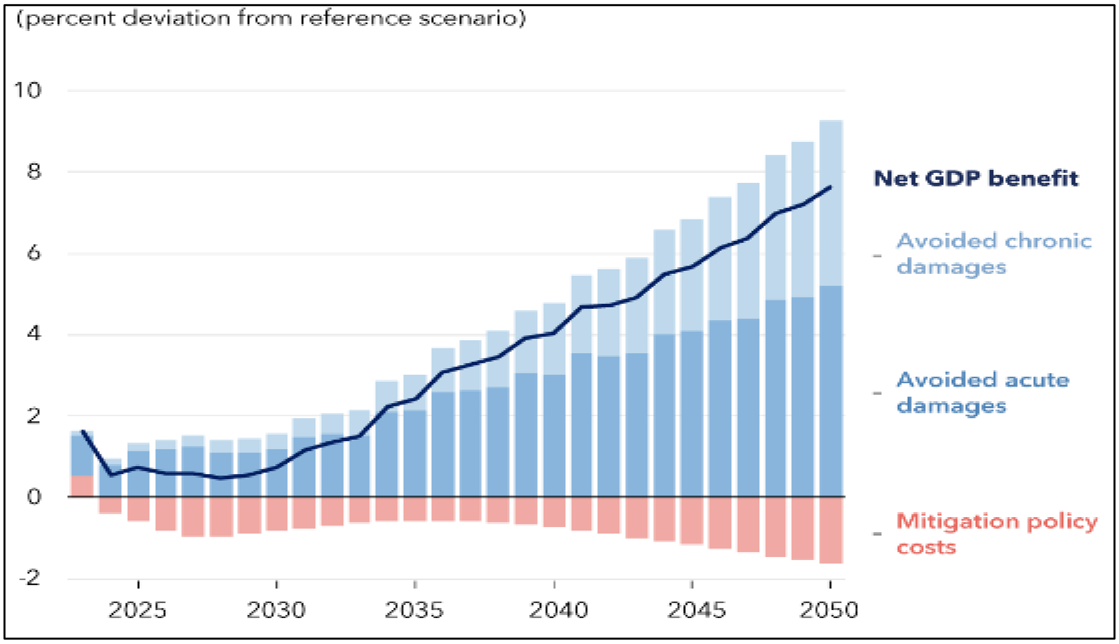


Source- World Bank

2. Benefits of Accelerating the Climate Transition Outweigh the Costs

- Ensuring a lower-carbon future is not only necessary but also good for the economy, according to the latest climate scenarios from the Network for Greening the Financial System (NGFS), a group of 127 central banks and financial supervisors working to manage climate risks and boost green investment.
- The below figure shows an orderly transition to net zero by 2050 could result in global gross domestic product being 7 % higher than under current policies.

Figure 6: World potential GDP benefit under net zero carbon emissions by 2050



Source- IMF

- This year will be the warmest on record, according to the World Meteorological Organization. While temperatures are rising unevenly across the world, on average they are up 1.2 degrees Celsius from pre-industrial levels.
- Economic and financial risks are rising too. NGFS models show that droughts and heatwaves are the largest source of risk across regions. Specifically, countries in Europe and Asia are most exposed to heatwaves, while countries in Africa, North America, and the Middle East are most vulnerable to droughts.
- Transitioning to a low-carbon economy will have negative impacts on demand from higher carbon prices and energy costs. But these can be partially offset by recycling carbon revenues into government investment and lower employment taxes. Most importantly, lowering emissions will reduce the physical impacts of climate change, which lowers macroeconomic costs.
- Further, transitioning to a net-zero economy will require substantial investment in green electricity and energy storage.

3. Trends in trade in 2024: - JP Morgan

With global economy facing the issues of high interest rates, rising inflation, tightening monetary policies and geopolitical tensions, thus creating a challenging landscape for global trade, JP Morgan lists down the techniques to navigate trade complexities in 2024.

Trend 1: - Bridging the SME lending gap

As of 2023, the gap is estimated to be $2.6 trillion, up from $1.5 trillion in 2020. Without access to capital, SMEs face cash shortages that limit their ability to meet demand and fulfill orders, and thereby threaten ongoing viability. Key reasons for this gap include:

- Many SMEs do not meet required thresholds, due to limited credit history or irregular sales cycles. This leaves larger corporations, which generate higher revenue and have established credit history, with primary access to available financing over SMEs.
- With a higher level of risk and the current rate environment, higher margins are charged to compensate lenders, making financing too expensive for SMEs.
- With less history and necessary data, it is difficult to assess SMEs' creditworthiness.

With an increased lending gap between large corporates and SMEs, it is critical to address SMEs' unmet liquidity needs and help unlock working capital.
An extension of supply chain finance, pre-shipment finance provides options that offer liquidity to SMEs earlier in the production cycle prior to invoice generation. This helps improve liquidity to fulfill orders, eliminating delays in the supply chain. Credit enhancement offers also potentially increase the appetite and capacity of banks to provide this type of financing.

Trend 2: Digitizing trade
As payments have rapidly evolved beyond cash transactions to innovative digital processes, trade has remained archaic—still relying heavily on the use of paper document exchange and manual processes.

With the increased adoption of legal and regulatory reform, allowing for the exchange of digital trade documents and data, the industry is advancing and rapidly adapting to the digital payments ecosystem. This shift towards digital trade processes, standardization and secure data sharing has the potential to transform trade by: Improving efficiency and interoperability, mitigating risk, and expanding into new markets globally.

Trend 3: The impact of geopolitical tensions

With the continuation of both the Israel-Hamas war and the Russia-Ukraine war, the global economy is potentially facing a heightened risk environment, due to the inflationary effects from lower regional trade volume in the Middle East and Europe. This includes tighter financial conditions, commodity price shocks and higher energy costs, coupled with lower consumer confidence and demand.

While the full impact of the rising tension on the Middle East is still unknown, companies are facing the reality that they will need liquidity to be agile in the event tensions worsen and timely access to potentially higher-priced commodities and raw material exports, such as natural gas, oil and even timber, are impacted further.

Trend 4: Exploring supply chain finance in the face of a high-interest rate environment

In the face of economic uncertainty, businesses need to shift their focus from relying on financing to strong balance sheet management and ready access to liquidity. Supply Chain Finance (SCF) will remain a key working capital solution, as it is an inexpensive financing and efficient liquidity option for both buyers and suppliers.

Ready access to working capital will be the key to unlocking necessary liquidity for both large corporations and SMEs to build resiliency in the face of this macroeconomic and geopolitical uncertainty.

4. **Rise in used heavy-duty vehicles a major contributor to pollution- UN Environment Programme (UNEP).**

While heavy-duty vehicle (HDV) exports represent a modest 3.6% of the global automotive trade's total value, their associated CO2 emissions have surged by over 30% since 2000, with trucks contributing 80% to this increase. Moreover, HDVs participate substantially to environmental pollution, accounting for over 40% of on-road nitrogen oxides (NOx) emissions, over 60% of on-road particulate matter (PM 2.5), and more than 20% of black carbon emissions, as revealed in the latest report by the UN Environment Programme (UNEP).

The report *Used Heavy Duty Vehicles and the Environment - A Global Overview of Used Heavy-Duty Vehicles: Flow, Scale and Regulation* report, jointly launched by the UNEP and the Climate and Clean Air Coalition (CCAC), provides a first global overview by the UN of the scale and regulation of used HDVs and their contribution to global air pollution, road accidents, fuel consumption and climate emissions. The report recommends ways to reduce the harmful aspects of used HDVs on people's health and the climate.

Many developing countries rely on used heavy duty vehicles (HDVs) imports to grow their fleet. While this promotes more affordable means to increasing mobility needs in these countries, the report finds that regulation and enforcement on the quality of used HDVs imported are either low or non-existent. Further amplifying their impacts, especially in the case of old, polluting, and unsafe used HDVs.

To date no country has minimum requirements for exporting used HDVs. The report finds regulations in over half of used HDV importing countries to be 'weak' or 'very weak' and enforcement to be inadequate. For example, while 25 African countries have adopted standards on used HDVs towards air pollution control, climate mitigation and improved road safety, only four have fully implemented these. Worldwide, only two countries have included used vehicles in their national climate action plans (NDCs).

The report emphasizes that it is a shared responsibility of importing and exporting countries to ensure cleaner and safer used vehicles are on the roads of developing countries. It shows the need for regional cooperation for introducing and enforcing minimum standards, such as emission standards and age limits, raising public awareness, and more research, for both environment and road safety benefits. For example, by adopting Euro VI equivalent vehicle emission standards and cleaner fuels, as much as 700 thousand premature deaths can be avoided by 2030.

Currently 97 % of all newly registered trucks and 73 % of buses in the EU run on diesel. Better regulations on used HDVs can also lead to a leapfrog and greater uptake of advanced technologies in developing countries, including electric buses and trucks.

5. Indian Economy

India's economic growth

The Reserve Bank of India's rate-setting panel has forecasted Indian economy to grow at 7 % in FY25. The Monetary Policy Committee (MPC) has forecast each of the quarters in FY25 to grow at 7.2 %, 6.8 %, 7 % and 6.9 % respectively.

Indian economy remained resilient amidst a global economic slowdown, supported by vigorous consumer and government spending, a thriving services sector and increased manufacturing.

Interim Union Budget 2024-25: Key highlights

The Finance and Corporate Affairs Minister Smt Nirmala Sitharaman, presented the Interim Union Budget for 2024-2025 in Parliament on 1st February 2024. The key highlights are mentioned below:-

- The capital expenditure outlay for the next year is being increased by 11.1 % to Rs 11,11,111 crore, which would be 3.4 % of the GDP.
- As per the First Advance Estimates of National Income of FY 2023-24, India's real GDP is projected to grow at 7.3 %. This is also in line with the upward revision in growth projections for FY2023-24

by the RBI (in its December 2023 Monetary Policy Committee meeting) from 6.5 % to 7 %, prompted by strong growth in Q2 of FY2023-24.

- GST collection stood at ₹1.65 lakh crore in December 2023.This is the seventh-time that gross GST revenues have crossed ₹1.6 lakh crore benchmark.

- The total receipts other than borrowings and the total expenditure are estimated at Rs 30.80 and 47.66 lakh crore respectively. The tax receipts are estimated at Rs 26.02 lakh crore.

- The scheme of fifty-year interest free loan for capital expenditure to states will be continued this year with total outlay of Rs1.3 lakh crore. A provision of seventy-five thousand crore rupees as fifty-year interest free loan is proposed this year to support the milestone-linked reforms of Viksit Bharat by the State Governments.

- The fiscal deficit in 2024-25 is estimated to be 5.1 % of GDP.

- The FDI inflow during 2014-23 was USD 596 billion marking a golden era and this is twice the inflow during 2005-14.

The Interim Budget contains several announcements and strategies indicating directions and development approach for making India Viksit Bharat by 2047.

- The Government will pay utmost attention to make the eastern region and its people a powerful driver of India’s growth, PM Awas Yojana (Grameen) is close to achieving the target of three crore houses and two crores more houses will be taken up in the next five years to meet the requirement arising from increase in the number of families.

- Under Pradhan Mantri Suryodaya Yojana (“PMSY”), through rooftop solarization, one crore households will be enabled to obtain up to 300 units free electricity every month and provide substantial savings of INR 15,000 to INR 18,000 annually.

- Pradhan Mantri Kisan Sampada Yojana has benefitted 38 lakh farmers and generated 10 lakh employment. Pradhan Mantri Formalisation of Micro Food Processing Enterprises Yojana has assisted 2.4 lakh SHGs and sixty thousand individuals with credit linkages.

- For promoting climate resilient activities for blue economy 2.0, a scheme for restoration and adaptation measures, and coastal aquaculture and mariculture with integrated and multi-sectoral approach will be launched.

- Allocation of ₹600 crore for the National Green Hydrogen Mission, compared to the previous year's budget of ₹297 crore.

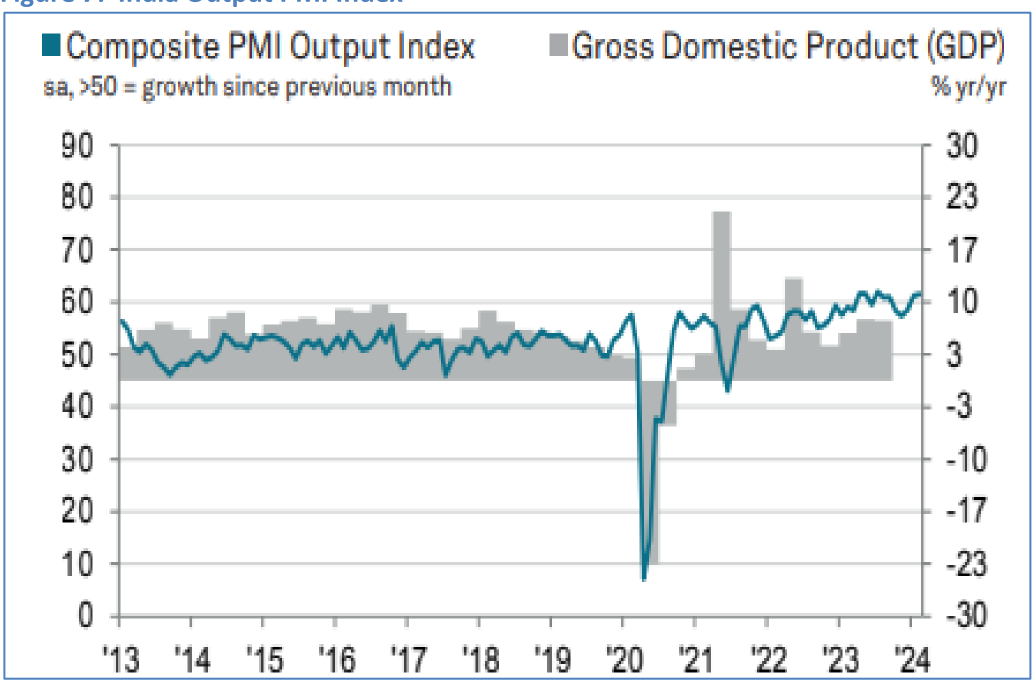
- For railways, three major economic railway corridor programmes will be implemented-energy, mineral and cement corridors, port connectivity corridors, and high traffic density corridors.

- On aviation sector, the number of airports have doubled to 149 and around five hundred and seventeen new routes are carrying 1.3 crore passengers. Indian carriers have pro-actively placed orders for over 1000 new aircrafts.

India PMI

- According to the HSBC India Manufacturing Purchasing Managers' Index, the headline HSBC Flash India Composite PMI Output Index rose from a final reading of 61.2 in January to 61.5 in February 2024.

Figure 7: India Output PMI Index



Source- HSBC

- While the manufacturing PMI inched up to 56.7 in February 2024 from 56.5 in the previous month, the HSBC Flash India Services PMI Business Activity Index rose to 62 in February from 61.8 in January.

- Growth improved in both the manufacturing and services economies, attributing the upturn to buoyant demand conditions, investment in technology, efficiency gains, expanded clientele and favorable sales developments.

- New orders across India's private sector rose for the thirty-first successive month. As was the case for output, as services firms noted a stronger increase in sales than their manufacturing counterparts.

Inflation in India

- Retail inflation in India eased to 5.1% in January 2024 on an annual basis, according to data released by the Ministry of Statistics & Programme Implementation.

- The Consumer Price Index (CPI) inflation rural stood at 5.34% and the CPI urban was at 4.92%.

- Retail inflation in the food basket was at 8.3% in January 2024, down from 9.53% in the preceding month.

- According to the Monetary Policy Committee (MPC), CPI inflation is projected at 5.4 % for 2023-24 with Q4 at 5.0 %.

- Assuming a normal monsoon next year, CPI inflation for 2024-25 is projected at 4.5 % with Q1 at 5.0 %; Q2 at 4.0 %; Q3 at 4.6 %; and Q4 at 4.7 %.

- The MPC has decided to keep the policy repo rate unchanged at 6.50 %.

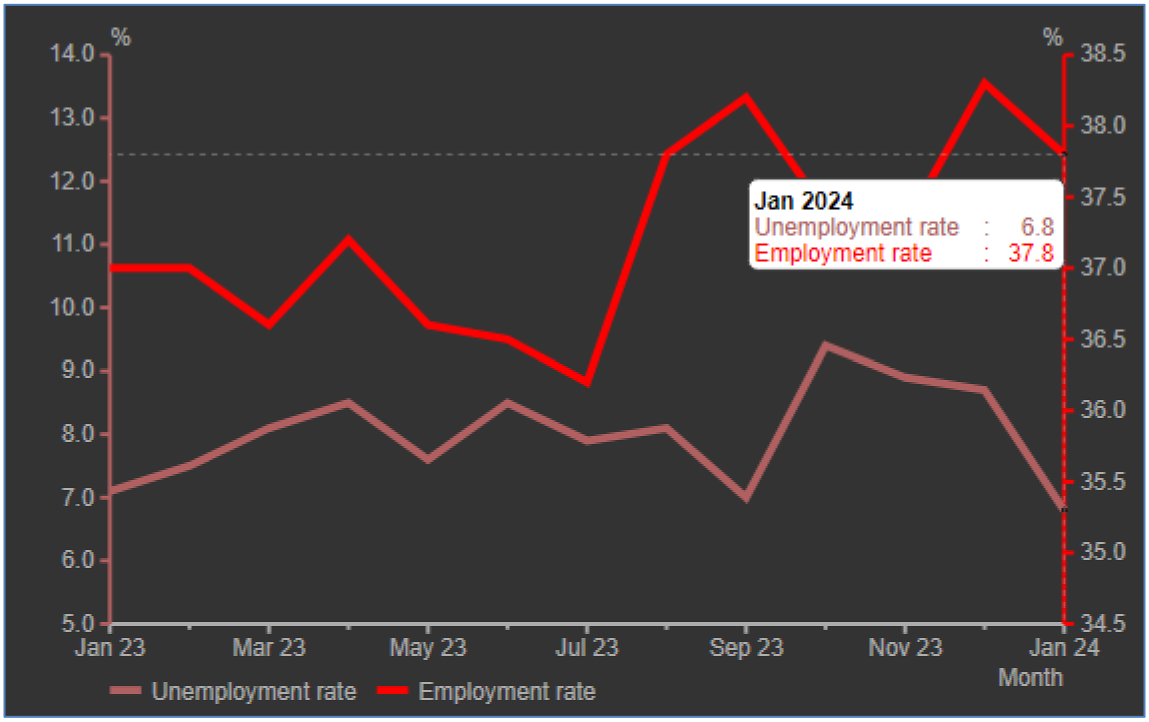
Unemployment in India

- According to the latest data available from the Centre for Monitoring Indian Economy (CMIE), unemployment rate in India, among persons aged 15 years and above, fell sharply to 6.8 % in January 2024, which is the lowest recorded in 16 months.

- This is a significant fall of nearly 1.9 %age points from December's unemployment rate of 8.7 %.

- It is also a notable decline from the levels of October-December 2023 that averaged at a much higher 9 %.

Figure 8: Unemployment in India



Source- CMIE

India's external position

India's forex reserves

- According to latest data released by Reserve Bank of India, India's foreign exchange reserves dipped by $5.24 billion to $617.23 billion for the week ending on February 9, 2024.
- According to the Weekly Statistical Supplement released by the RBI, foreign currency assets (FCAs) dropped by $4.81 billion to $546.52 billion.
- Gold reserves fell by $350 million to $47.74 billion, whereas SDRs decreased by $55 million to $18.14 billion.
- Reserve position in the IMF decreased by $28 million to $4.83 billion.

India's foreign trade position

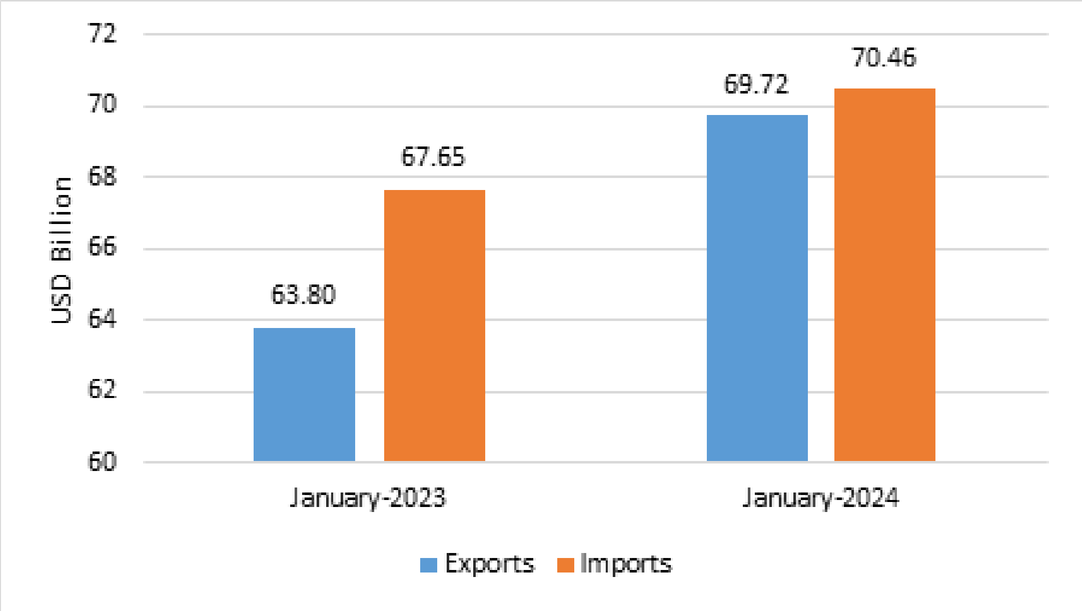
- India's overall exports (Merchandise and Services combined) in January 2024 is estimated to be USD 69.72 Billion, exhibiting a growth of 9.28 % over January 2023.
- Overall imports in January 2024 is estimated to be USD 70.46 Billion, exhibiting a positive growth of 4.15 % over January 2023.

Table 1: Trade during January 2024

		January 2024 (USD Billion)	January 2023 (USD Billion)
Merchandise	Exports	36.92	35.80
	Imports	54.41	52.83
Services	Exports	32.80	28.00
	Imports	16.05	14.83
Overall Trade (Merchandise +Services)	Exports	69.72	63.80
	Imports	70.46	67.65
	Trade Balance	**-0.74**	**-3.85**

Source- Ministry of Commerce & Industry

Figure 9: Overall Trade during January 2024



Source- RBI

- For the month of January 2024, under merchandise exports, 18 of the 30 key sectors exhibited growth in January 2024 as compared to same period last year (January 2023). These include

Tobacco (47.32%), Meat, Dairy & Poultry Products (26.12%), Spices (20.5%), Cereal Preparations & Miscellaneous Processed Items (18.69%), Oil Meals (14.66%), Oil Seeds (11.34%), Fruits & Vegetables (10.61%), Plastic & Linoleum (9.55%), Carpet (9.44%), Electronic Goods (9.31%), Tea (6.92%), Drugs & Pharmaceuticals (6.84%), Petroleum Products (6.57%), Coffee (5.53%), Engineering Goods (4.2%), Cotton Yarn/Fabs./Made-Ups, Handloom Products Etc. (2.5%) and Organic & Inorganic Chemicals (0.3%).

- For April-January 2023-24, under merchandise exports, 14 of the 30 key sectors exhibited growth during April-January 2023-24 as compared to April-January 2022-23. These include Oil Meals (25.63%), Electronic Goods (20.77%), Ceramic Products & Glassware (16.52%), Fruits & Vegetables (15.76%), Tobacco (15.48%), Meat, Dairy & Poultry Products (10.42%), Oil Seeds (9.61%), Cereal Preparations & Miscellaneous Processed Items (8.14%), Drugs & Pharmaceuticals (8.07%), Spices (7.18%), Cotton Yarn/Fabs. /Made-Ups, Handloom Products Etc. (5.69%), Coffee (4.35%) and Engineering Goods (0.002%).

- India's trade deficit has shown considerable improvement in April-January 2023-24. Overall trade deficit for April-January 2023-24 is estimated at USD 70.43 Billion as compared to the deficit of USD 111.99 Billion during April-January 2022-23, registering a decline of (-) 37.11 %. The merchandise trade deficit during April-January 2023-24 is USD 207.20 Billion compared to USD 229.37 Billion during April-January 2022-23, registering a decline of (-) 9.66 %.

6. India's GDP growth to moderate to 6.5% in FY 2025: Morgan Stanley

- According to Morgan Stanley Research India's GDP growth for FY25 is expected to moderate at 6.5% for FY24.

- According to their research, domestic demand improved in January and macro stability remains comfortable, reflecting strength in the fundamentals.

- Morgan Stanley Research has projected growth for the third quarter of FY24 ending December 2023 at 6.5 %, even as it slows from 7.7 % in the first half of the current financial year.

7. Digital public infra added 0.9% to India's GDP in 2022; contribution to triple by 2030: Nasscom

- Digital public infrastructure (DPI) like Aadhaar, UPI and FASTag generated a value of USD 31.8 billion in 2022, adding 0.9 % to India's GDP and the contribution of this segment is likely to increase to approximately 2.9–4.2% of GDP.

- Digital public infrastructures are poised to propel India towards a $1 trillion digital economy by 2030, helping the country to become a $8 trillion economy, according to the Digital Public Infrastructure of India—Accelerating India's Digital Inclusion report by Nasscom-Arthur D. Little.

- According to industry body NASSCOM, digital public infrastructure (DPIs) such as Aadhaar, UPI (Unified Payments Interface), and FASTag have witnessed exponential adoption. Going ahead there is an opportunity for further scalability, reaching even the most remote segments of the population by 2030.

- The Nasscom-Arthur D. Little report titled 'Digital Public Infrastructure of India - Accelerating India's Digital Inclusion' said Indian DPIs' foundational layers are based on transparency and trust, which promotes paperless transactions, reduces bureaucracy, and advances the concept of digital identity and document management.

- The report said presently over 30 countries are either adopting or in early discussions to implement India's DPIs like UPI, Aadhaar, and Beckn in their countries for boosting social and financial inclusion.+

- DPIs have enhanced the ability to use digital technologies at population scale. India is using DPIs for adoption of digital payments and data-sharing infrastructures, which has strengthened domestic businesses and entrepreneurship. This has been supported by the government and enabled by the IT intellectual capital and startup ecosystem.

8. India's equity market to become 5th largest economy, market cap to hit US$ 10 trillion by 2030: Jefferies

- Jefferies, a global brokerage house, anticipates India's equity market to surge, becoming the fifth-largest globally with a projected market capitalization of US$ 10 trillion by 2030.

- The country has demonstrated a consistent 10-12% USD CAGR over the last two decades, securing its position as the fastest-growing large economy.

- Jefferies attributes India's resilience to robust trends in domestic flows and reduced market volatility, a reason to robust economic growth.

- The brokerage highlighted that over the last 10 years, India's GDP has grown by 7 % CAGR in USD terms to $3.6 trillion - jumping from the 8th largest to the 5th largest economy.

- The GDP grew even as there was an impact of several major reforms (bankruptcy law, GST implementation, real estate regulation act or RERA, demonetization which gave an impetus to the digital economy driving formalization).

- Over the next 4 years, the global firm sees India as the 3rd largest economy by 2027, overtaking Japan and Germany, being the fastest-growing large economy with the tailwinds of demographics (consistent labor supply), improving institutional strength and improvement in governance.

9. **Venture debt rises 50% in India to touch $1.2b in 2023: report**

Venture debt investments into Indian startups saw a 50% increase in 2023 to touch $1.2 billion, according to a report by Stride Ventures. It also expects the demand for this route of financing to remain strong even this year. In its report titled “India Venture Debt Report 2024,” leading venture debt firm Stride Ventures said 2023 saw approximately 175-190 deals and this reflected a compounded annual growth rate (CAGR) of about 34% from 2017-2023.

According to the report, the consumer segment saw the highest number of venture debt transactions while in terms of value, the fintech sector received the highest investments. The average ticket size of the venture debt deals was around $4 million.

The Delhi-NCR region received the maximum number of venture debt deals. The report noted that there is an increased preference for one-stop debt solutions that offer comprehensive financial packages.

Stride Ventures said this pivot towards early to mid-stage companies indicates an evolutionary stride in the use of venture debt, showcasing a broader acceptance across various stages of company growth. In terms of future projections, the report said the cleantech sector is expected to gain the maximum traction in terms of venture debt in 2024. This shift underscores a broader trend towards sustainable and environmentally conscious investments, aligning with global priorities and investor interests in green technologies, it noted.

10. **India exported USD 6.65 bn oil products derived from Russian oil to sanctioning nations: Report**

According to Finland-based Centre for Research on Energy and clean Air (CREA), over one-third of India's export of oil products to the G7-led coalition countries was derived from Russian crude ((EUR 6.16 billion or USD 6.65 billion)

While there are no restriction or sanctions on buying/using Russian crude oil and exporting fuels such as diesel derived from it, the Group of Seven (G7) rich nations, the European Union and Australia - called the price cap coalition countries - first set a crude price cap of USD 60 per barrel starting December 5, 2022 and later products like diesel to keep market supplied while limiting Moscow's revenue.

Jamnagar alone exported EUR 5.2 billion of oil products produced from Russian crude to the price cap coalition. According to CREA, India imported Russian crude worth EUR 3.04 billion to create these products for sanctioning countries. The USA imported EUR 1.2 billion of oil products from India, which were estimated as being refined from Russian crude.

Further, the report said that EUR 8.5 billion (USD 9.18 billion) of price cap coalition countries' imports of oil products between December 1, 2022 and December, 2023 were made from Russian crude. These imports in a 13-month period are equivalent to 68 % of the EU's annual commitment to aid Ukraine between 2024 and the end of 2027.

Lessons from Economics

SUBSIDY- types and its benefits

A subsidy is traditionally a form of financial assistance provided to businesses or individuals by the government. The objective of a subsidy is to encourage and improve economic activity. Through subsidies, the government makes goods and services available to consumers at reduced prices, thereby improving the state of the economy.

Government subsidies ease the economic burden on individuals and establishments, allowing all parties to exhibit improved market behavior. This is achieved by reducing the market prices and extending benefits such as improving production, optimizing exports, and tackling unemployment.

Government subsidies, which are the most prominent form of subsidies, are also of various types.

- Production Subsidy

A production subsidy allows companies to reduce the cost of production. Companies can increase the production value by cutting down the extent of their losses and investment. The products can be made available to customers at a lower rate than the previous price, improving affordability.

- Consumer Subsidy

Consumer subsidies are schemes that reduce the cost of goods and services. In India, for instance, the central government provides free ration under the Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY).

- Tax Subsidy

This, reduces the burden on business owners and allows them to improve their production and extend their services and products at a lower cost.

- Export and Import Subsidy

Under export subsidies, the government grants special incentives on exported products to promote trade activities. Similarly, import subsidies are benefits extended to items being imported. Importers are able to lower the cost at which products are brought into the country. This affects the price at which items are sold, improving affordability.

- Subsidies Based on Industry

Most subsidies are also tailored to suit the demands of the sector they are aimed at. These industry-specific subsidies cover areas such as transport, education, agriculture, and health.

The Indian Government offers a range of subsidies at the central and state levels.

Subsidy Name	Ministry	Description
Prime Minister Employment Generation programmes (PMEGP)	Ministry of MSME, Govt. of India	Credit-linked subsidy programme to improve job opportunities.
Marketing Assistance Scheme by NSIC	Ministry of MSME, Govt. of India	Marketing assistance for organisation and sale of products at international and national exhibitions and trade fairs
Integrated Development of Leather Sector (IDLS) Scheme	Ministry of Textiles, Government of India (GoI)	Investment grant for expansion and growth of the leather industry
ISO 9000/ISO 14001 Certification Reimbursement Scheme	Ministry of MSME, GoI	75% reimbursement of charges for acquiring ISO certification
Credit Linked Capital Subsidy Scheme for Technology Upgradation (CLCSS)	Ministry of Micro, Small & Medium Enterprises (MSME), GoI	Grants 15% subsidy [ceiling of 15 lakh] for improved technology
Technology & Quality Upgradation Support for MSMEs	Ministry of MSME, GoI	Provide aid up to 25% project cost to setup Energy Efficient Technologies
Government Subsidy for Small Business for Cold Chain	Ministry of Food Processing Industries, GoI	Investment grant to set up integrated cold chain and preservation infrastructure
Extension of financial assistance for coir units in the brown fibre sector	Ministry of MSME, GoI	Financial aid to coir units
Solar Energy Scheme for Power looms	Ministry of Textiles (MoT), GoI	Financial aid or capital subsidy for installation of solar devices in small power loom units
Integrated Processing Development Scheme (IPDS)	Ministry of Textiles (MoT), GoI	To address issues of non-availability of water and environmental pollution. It aims to achieve regular supply of water, safe wastewater management techniques

Benefits of Subsidy

- **Reduces Cost and Inflation**

By reducing costs, subsidies help keep inflation in check and ensure the optimal function of the market. Reducing commodities' prices also allows essential items to reach a larger population.

- **Promotes Business**

Subsidies prevent businesses from going bankrupt by reducing production costs and encouraging the sale of goods and services. Subsidies not only allow traditional sectors such as agriculture to flourish but also encourages the advancement of new areas of research and development.

- **Encourages Production and Supply**

By providing incentives and tax benefits to business owners, subsidies encourage production and ensure a constant flow of demand and supply.

- **Socio-economic Development**

In addition to the economic growth of the country and the smooth functioning of the market, subsidies also promote the community's social welfare by catering to areas such as health and education, among others.

Oil Market

Crude oil price – Monthly Review

Global oil market balances tightened in January despite apparent demand weakness. An extreme Arctic freeze that swept through key oil producing regions in the United States and Canada prompted significant supply outages that coincided with fresh voluntary output curbs by some OPEC+ countries. Escalating geopolitical tensions in the Middle East added further upward momentum, as oil tankers circumventing the Red Sea disrupted supply flows to global markets.

Crude spot market improved in January amid signs of further strengthening in fundamentals, with prices recovering after three consecutive months of declines. The rebound was preliminarily driven by easing futures' selling, providing a supportive environment for spot prices to strengthen. Additionally, ongoing geopolitical tensions and heightened risks in Eastern Europe following attacks on oil infrastructure in the Baltic Sea, added a risk premium to the market, bolstering prices.

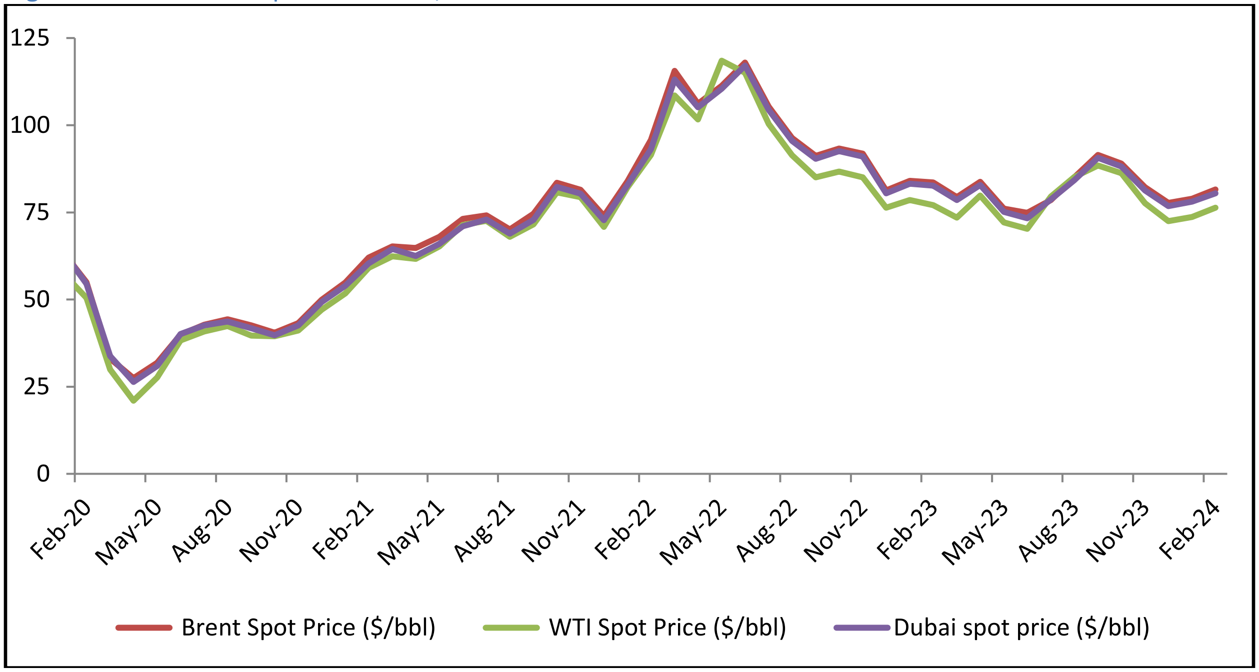
Prices were also supported by higher refining margins, especially in Asia and the US Gulf Coast, which contributed to increased demand for crude oil, along with a substantial draw in US crude stocks in January. Moreover, lower OECD commercial oil stocks in December signalled strong supply-demand fundamentals, reinforcing positive sentiment among market participants. The North Sea Dated was further supported by reduced availability of WTI crude in Northwest Europe, supply outages in Libya and trade flow disruptions which delayed arrivals of crude from the east. Furthermore, weather-related supply disruptions in the US, stronger refining margins, and lower stocks at Cushing buoyed WTI prices.

Spot crude prices rose more than futures prices in January in a sign of a healthy physical crude market. North Sea Dated maintained a premium against ICE Brent's first-month contract in January on a monthly basis. On a monthly average, the North Sea Dated-ICE Brent spread stood at a premium of $1.11/b in January, compared with a premium of 66¢/b in December 2023.

Selling pressure from hedge funds and other money managers eased in January after heavy selloffs were observed during November and December. Speculators recovered part of their bullish positions related to ICE Brent as prices turned higher amid supply disruptions and geopolitical developments, as well as signs of stronger physical market fundamentals. Meanwhile, short covering in NYMEX WTI accelerated as speculators rushed to close short positions, which contributed to the upward trend in oil futures.

Brent crude ranged an average to $81.82 a barrel and WTI ranged to $76.57 per barrel in the month of February 2024.

Figure 10: Benchmark price of Brent, WTI and Dubai crude



Source- World Bank

- Brent crude price averaged $81.82 per bbl in February 2024, up by 3.6% on a month on month (MoM) and down by 2.1% on year on year (YoY) basis, respectively.
- WTI crude price averaged $76.57 per bbl in February 2024, up by 4.0% on a month on month (MoM) and down by 0.6% on year on year (YoY) basis, respectively.
- Dubai crude price averaged $80.78 per bbl in February 2024, up by 3.5% on a month on month (MoM) and down by 2.3% on year on year (YoY) basis, respectively.

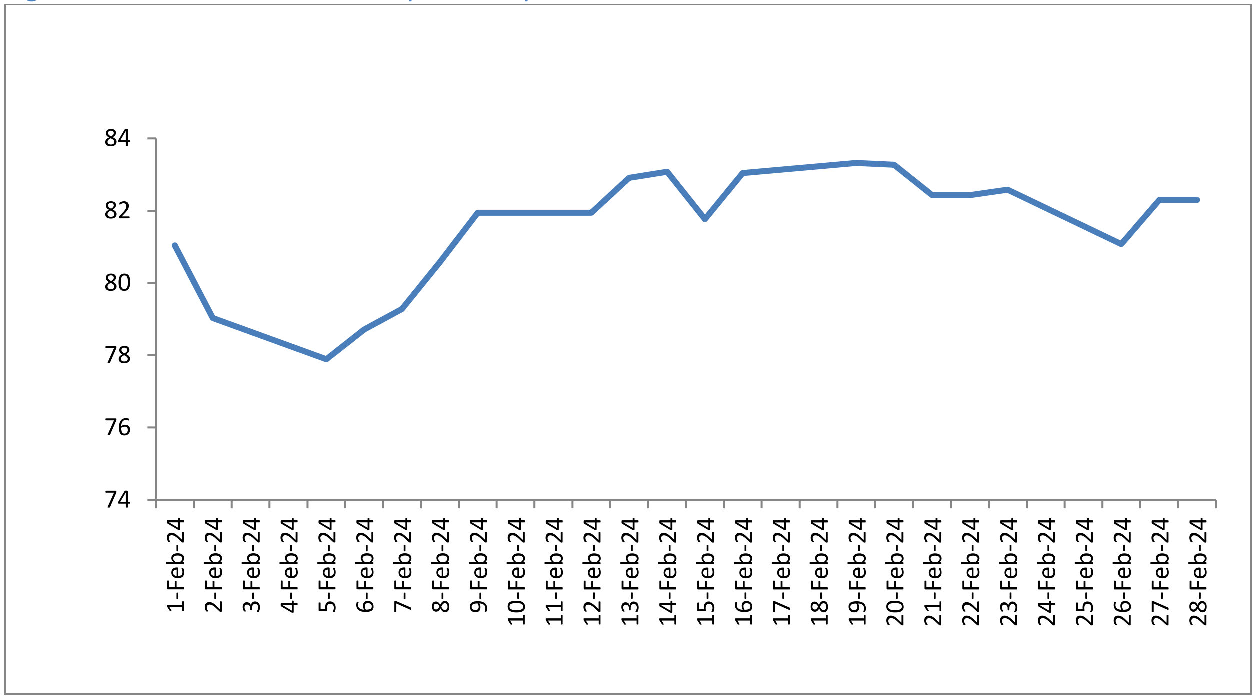
Table 2: Crude oil price in February, 2024

Crude oil	Price ($/bbl)	MoM (%) change	YoY (%) change
Brent	81.82	3.6%	-2.1%
WTI	76.57	4.0%	-0.6%
Dubai	80.78	3.5%	-2.3%

Source- World Bank

Indian Basket Crude oil price

Figure 11: Indian crude oil basket price in $ per bbl



Source- PPAC

- Indian crude basket price averaged $81.58 per barrel in February 2024, up by 3.2% on Month on Month (M-o-M) and down by 1.2% on a year on year (Y-o-Y) basis, respectively.

Oil production situation

- Non-OPEC liquids production in 2023 is estimated to grow by 2.4 mb/d, y-o-y, reaching 69.4 mb/d. Upward revisions to the estimation for the US and Russia offset downward revisions to the UK and Azerbaijan. Overall, OECD supply growth for 2023 is revised higher. While OECD Europe remains largely unchanged, OECD Americas is revised up owing to the US and Canada. OECD Asia Pacific's output growth is estimated to marginally decline. The non-OECD supply growth estimation for 2023 is revised up to 0.5 mb/d, y-o-y. Latin America is estimated to be the main growth driver in the non-OECD region, followed by China and Other Eurasia.

- OPEC NGLs and non-conventional liquids production is expected to increase by around 60 tb/d to average 5.5 mb/d in 2024 and additional growth of 110 tb/d is forecast for 2025 to average 5.6 mb/d.

Table 3: Non-OPEC liquids production in 2024, mb/d

Non-OPEC liquids production	2023	1Q24	2Q24	3Q24	4Q24	2024
Americas	28.66	28.97	29.14	29.59	29.89	29.40
of which US	*20.89*	*21.00*	*21.35*	*21.61*	*21.76*	*21.43*
Europe	3.63	3.83	3.72	3.66	3.81	3.75
Asia Pacific	0.44	0.45	0.42	0.43	0.42	0.43
Total OECD	**32.73**	**33.25**	**33.28**	**33.69**	**34.12**	**33.59**
China	4.57	4.60	4.59	4.56	4.56	4.58
India	0.77	0.79	0.79	0.79	0.78	0.79
Other Asia	2.27	2.28	2.24	2.21	2.21	2.24
Latin America	6.94	7.24	7.22	7.33	7.39	7.30
Middle East	3.27	3.25	3.28	3.27	3.28	3.27
Africa	2.40	2.36	2.36	2.40	2.43	2.39
Russia	10.92	10.80	10.84	10.84	10.86	10.84
Other Eurasia	2.91	2.86	2.97	2.97	2.99	2.95
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10
Total Non-OECD	**34.16**	**34.29**	**34.40**	**34.48**	**34.60**	**34.44**
Total Non-OPEC production	66.89	67.54	67.68	68.16	68.72	68.03
Processing gains	2.47	2.52	2.52	2.52	2.52	2.52
Total Non-OPEC liquids production	**69.36**	**70.06**	**70.20**	**70.68**	**71.24**	**70.55**

*Note. *2024 = Forecast. Totals may not add up due to independent rounding*
Source- OPEC monthly report, February 2024

- From the above table, it can be inferred, that the total non-OPEC liquids production is expected to reach 70.55 mb/d by 2024.
- OPEC NGLs and non-conventional liquids production is expected to increase by around 60 tb/d to an average of 5.5 mb/d.

Oil demand situation

- The global oil demand growth forecast for 2024 remains unchanged at 2.2 mb/d. A slight upward adjustment to the US forecast has been made due to an improving expectation for the US economy, which will have a positive impact on oil demand. This offsets a downward revision in OECD Europe.

- In 2025, global oil demand is expected to see 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: World Oil demand, mb/d

	2023	1Q24	2Q24	3Q24	4Q24	2024	Growth	%
Total OECD	**25.01**	**24.68**	**25.38**	**25.58**	**25.22**	**25.22**	**0.21**	**0.84**
~ of which US	*20.30*	*20.09*	*20.67*	*20.67*	*20.47*	*20.48*	*0.17*	*0.85*
Total Non-OECD	**56.39**	**57.68**	**57.99**	**58.55**	**59.26**	**58.37**	**1.11**	**3.53**
~ of which India#	*5.34*	*5.63*	*5.64*	*5.40*	*5.59*	*5.56*	*0.22*	*4.11*
~ of which China	16.19	16.13	16.77	17.09	17.29	16.82	0.63	3.89
Total world	**102.16**	**103.32**	**103.91**	**104.88**	**105.47**	**104.40**	**2.25**	**2.20**

Source- OPEC monthly report, February 2024

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

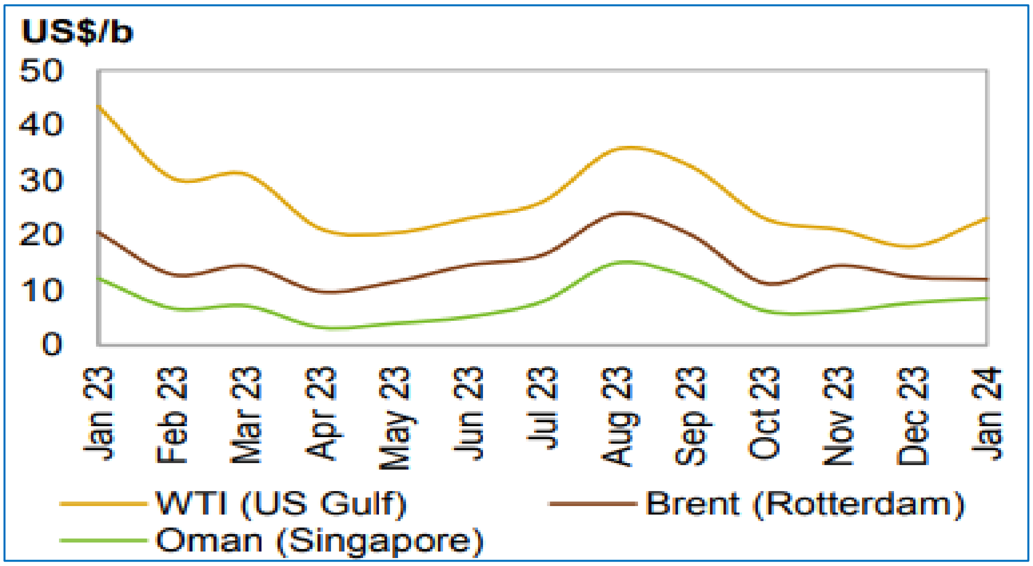
Global petroleum product prices

US Gulf Coast (USGC) refining margins against WTI increased, as refinery outages in the country led to lower product output, which exerted upward pressure on product prices (except for residual fuel) and, ultimately, US refining economic performance. Jet/kerosene represented the main driver for the recorded gains, followed by gasoline and naphtha. In addition to the supportive effect derived from the supply side dynamics, a rise in octane prices, which reached multi-year highs in January, further contributed to upward pressure on gasoline prices and crack spreads, which likely provided further backing to US refining economics. In terms of operations, US refinery intake decreased to average 15.91 mb/d in January, showing a monthly drop of 970 tb/d. USGC margins against WTI averaged $23.16/b, up by $5.13, m-o-m, but down by $20.31, y-o-y.

Refinery margins in Rotterdam against Brent declined for the second consecutive month as the overall seasonal product weakness amid subdued demand kept product markets under pressure. Gasoil was the main driver of the loss registered, as weak industrial conditions weighed on the products' performance, while high sulphur fuel oil crack spreads underwent a downward correction from the robust performance seen in the previous month. On the positive side, jet/kerosene and gasoline markets strengthened with lower imports from the East, as the unfolding geopolitical tension affected East-to-West product flows through the Suez Canal. This upside likely prevented a steeper loss in Northwest Europe refining economics.

Refinery throughput in Europe decreased in January, according to preliminary data, and was 230 tb/d lower m-o-m, averaging 9.13 mb/d. Refinery margins against Brent in Europe averaged $11.99/b in January, 39¢ lower, m-o-m, and $8.51 lower, y-o-y.

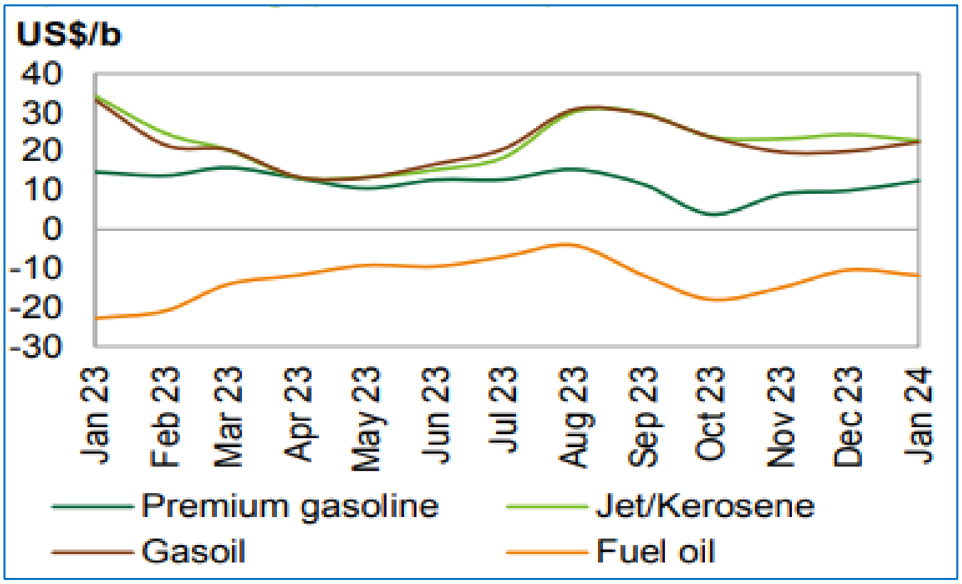
Figure 12: Refining Margins ($/bbl)



Source- Argus and OPEC

The Asian gasoline 92 crack posted solid gains, reaching a five-month high in January. In Southeast Asia, gasoline showed the largest monthly gain across the board as heavy refinery maintenance in the Middle East unlocked stronger gasoline deliveries from Singapore to the Middle East. Although there was an improvement in regional product exports in China, overall exports remained subdued as the country prioritized maintaining a well-supplied domestic market in preparation for the Chinese Lunar New Year holidays. In the coming month, Chinese refiners are expected to increase exports and make more use of the available product export quotas, particularly during the later stages of the heavy refinery maintenance season, when refinery margins climb, for optimal profits. The Singapore gasoline crack spread against Dubai in January averaged $12.45/b. This was up $2.49/b, m-o-m, but $2.29 lower, y-o-y.

Figure 13: Singapore crack Spreads vs. Dubai ($/bbl)



Source- Argus and OPEC

The Singapore gasoil crack spread continued to increase and settled nearly in parity with jet/kerosene, reflecting the increase in gasoil requirements from the Middle East. In the near term, gasoil balances are expected to contract globally with refinery run cuts, including in Southeast Asia, which points to added support going forward. The Singapore gasoil crack spread against Oman averaged $22.43/b, up by $2.36/b, m-o-m, but down by $10.80, y-o-y.

Table 5: Singapore FOB, refined product prices ($/bbl) in January 2024

Singapore product prices	Price ($/b)	MoM (%) change	YoY (%) change
Naphtha	73.03	0.5%	0.7%
Premium gasoline (unleaded 95)	95.94	5.1%	-2.9%
Regular gasoline (unleaded 92)	91.18	4.5%	-4.5%
Jet/Kerosene	101.58	-0.1%	-11.7%
Gasoil/Diesel (50 ppm)	102.45	3.0%	-11.4%
Fuel oil (180 cst 2.0% S)	100.74	3.5%	-10.0%
Fuel oil (380 cst 3.5% S)	66.95	0.0%	15.5%

Source- OPEC

Petroleum products consumption in India

Monthly Review:

- Overall consumption of all petroleum products in January 2024 with a volume of 20.03 MMT registered a growth of 7.42% on volume of 18.65 MMT in January 2023.
- MS (Petrol) consumption during the month of January 2024 with a volume of 3.10 MMT recorded a growth of 9.66% on volume of 2.82 MMT in January 2023.
- HSD (Diesel) consumption during the month of January 2024 with a volume of 7.43 MMT recorded a growth of 3.44% on volume of 7.18 MMT in the month of January 2023.
- LPG consumption during the month of January 2024 with a volume of 2.69 MMT registered growth of 7.60% over the volume of 2.51 MMT in the month of January 2023.
- ATF consumption during January 2024 with a volume of 0.716 MMT registered a growth of 7.40% over the volume of 0.667 MMT in January 2023.
- Bitumen consumption during January 2024 with a volume of 0.791 MMT registered growth of 20.00% over volume of 0.659 MMT in the month of January 2023.
- Kerosene consumption registered growth of 8.48% during the month of January 2024 as compared to January 2023.

Table 6: Petroleum products consumption in India, January 2024

Consumption of Petroleum Products (P)	Consumption in '000 MT	MoM (%) change	YoY (%) change
LPG	2,698	2.6%	7.6%
Naphtha	1,304	-1.6%	12.5%
MS	3,100	3.7%	9.7%
ATF	716	-0.4%	7.4%
SKO	36	-11.9%	8.5%
HSD	7,426	-2.4%	3.4%
LDO	68	2.2%	36.1%
Lubricants & Greases	324	-1.6%	-8.5%
FO & LSHS	567	-1.2%	-5.7%
Bitumen	791	-0.5%	20.0%
Petroleum coke	1,680	5.2%	10.9%
Others	1,328	-4.0%	20.3%
TOTAL	**20,038**	**-0.1%**	**7.4%**

Source- PPAC

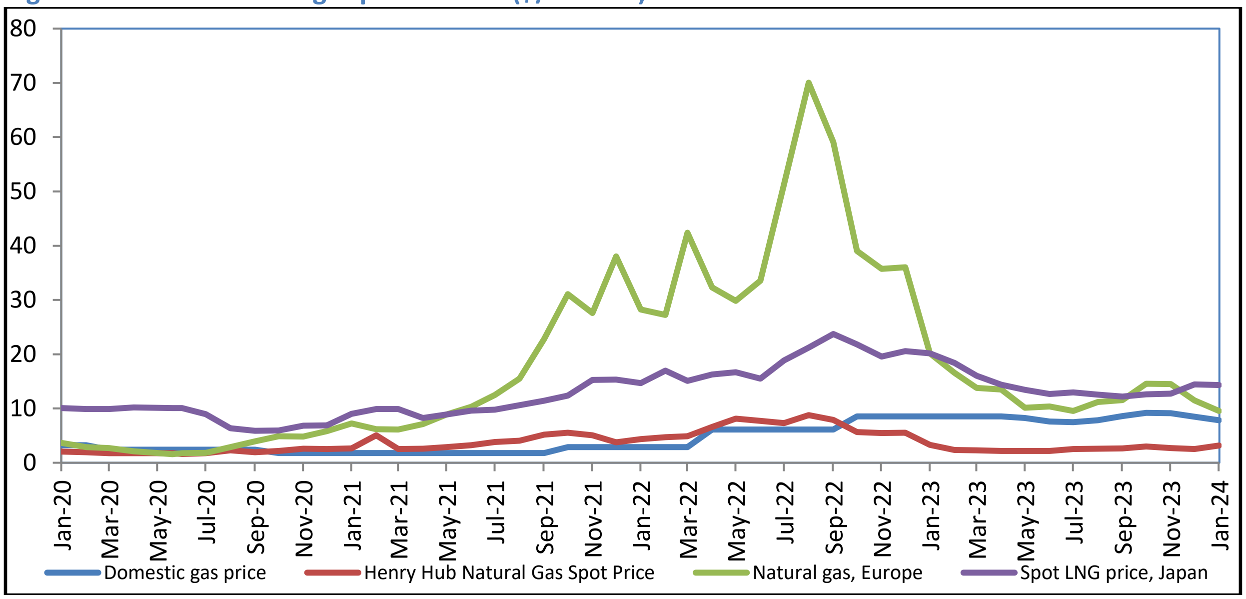
Natural Gas Market

Natural Gas Price – Monthly Review

- Natural gas spot prices at the US Henry Hub benchmark averaged $3.18 per million British thermal units (MMBtu) in January 2024. Henry Hub's natural gas prices rallied in January and recovered losses from the two previous months. Prices rose sharply by ~26.0%, m-o-m, on the back of colder weather across the US that increased demand for residential heating. The January gas draw brought US underground stores within the five-year average according to the US Energy Information Administration. Prices were further supported by concerns about the impact of the winter freeze on power grids and gas production given its resemblance to the 2021 winter freeze that led to shutdowns of some major power and gas infrastructure. Prices were down by 2.8%, y-o-y.
- The natural gas spot price at the Title Transfer Facility (TTF) in the Netherlands in Europe traded at an average of $9.56 per MMBtu. Natural gas prices in Europe continued their downward trajectory in January. The average Title Transfer Facility (TTF) price went from $11.5/mmbtu in December to $9.6/mmbtu in January, a 16.9% m-o-m decline. The EU's storage levels fell below the 2023 levels in January, but remained at comfortable levels. As of 31 January, EU gas storage was at 70.2% capacity according to data from Gas Infrastructure Europe. Moreover, demand remained weak amid mild weather, thus slowing down gas draws. Prices were down by 52.6%, y-o-y.
- Japan Liquefied Natural Gas Import Price averaged at $14.31 per MMBtu for January 2024. There is a change of -0.90% from last month and -29.1% from one year ago.

- The Union Cabinet has approved a new formula for pricing of natural gas and imposed cap or ceiling price on the same. Natural gas produced from legacy or old fields, known as APM gas, will now be indexed to crude oil prices. From April 1 2023, APM gas will be priced at 10 % of the price of basket of crude oil that India imports. The rate such arrived at however will be capped at USD 6.5 per MMBTU. The price such arrived at will also have a floor of USD 4 per MMBTU.
- Further, in accordance with MoP&NG, Govt. of India, pricing freedom for gas being produced from discoveries in Deepwater, Ultra Deepwater and High Pressure-High Temperature areas, the gas price ceiling for the period 1st April, 2023 - 30th September, 2023 was notified as US$ 12.12/MMBTU on Gross Calorific Value (GCV) basis as per notification dated 31st March, 2023. Gas price ceiling was further revised for the period 1st October, 2023 – 31st March, 2024 was notified as US$ 9.96/MMBTU on Gross Calorific Value (GCV) basis as per notification dated 30th September 2023.

Figure 14: Global natural gas price trends ($/mmbtu)



Source- EIA, World Bank

Table 7: Gas price, January 2024

Natural Gas	Price ($/MMBTU)	MoM (%) change	YoY (%) change
India, Domestic gas price (Feb'23)	7.82	0.38%	-8.40%
India, Gas price ceiling – difficult areas (Oct'23-Mar'24)	9.96	-17.82%	-20.06%
GIXI (Gas index of India) price*	12	-9%	-34%
Henry Hub	3.18	26.2%	-2.8%
Natural Gas, Europe	9.56	-16.9%	-52.6%
Liquefied Natural Gas, Japan	14.31	-0.9%	-29.1%

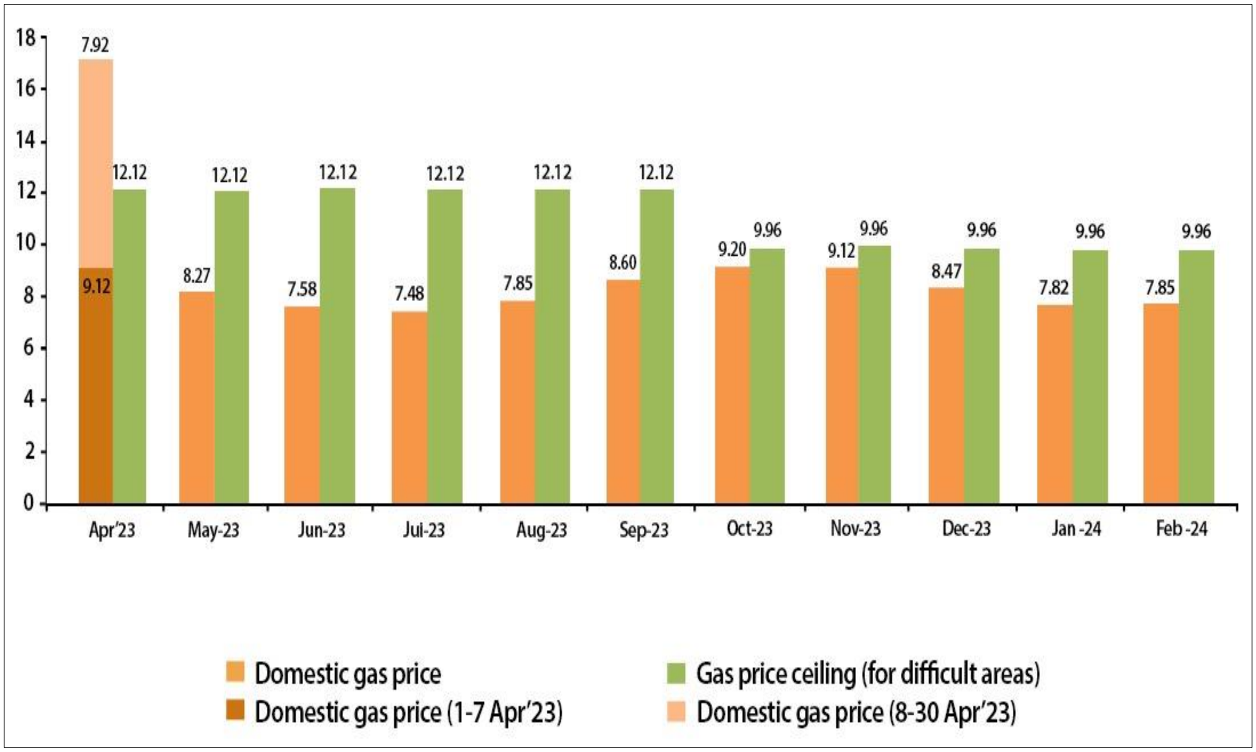
Source- EIA, PPAC, World Bank, IGX
**Prices are weighted average prices (excluding ceiling price gas)*

Table 8: Gas price, GCV Basis

Period	Domestic Gas calculated price in US$/MMBTU
1-7 April 2023	9.16
8-30 April 2023	7.92
1-31 May 2023	8.27
1-30 June 2023	7.58
1-31 July 2023	7.48
1-31 August 2023	7.85
1-30 September 2023	8.60
1-31 October 2023	9.20
1-30 November 2023	9.12
1-31 December 2023	8.47
1-31 January 2024	7.82
1-29 February 2024	7.85

Source- PPAC

Figure 15: Domestic natural gas price April 2023 – February 2024 ($/mmbtu)



Source- PPAC

Indian Gas Market

- Gross production of natural gas for the month of January 2024 was 3139 MMSCM which was higher by 5.5% compared with the corresponding month of the previous year.

- Total import of LNG (provisional) during the month of January 2024 was 2445 MMSCM (P) (increase of 28.0% over the corresponding month of the previous year).

- Natural gas available for sale during January 2024 was 5025 MMSCM (increase of 15.3% over the corresponding month of the previous year).

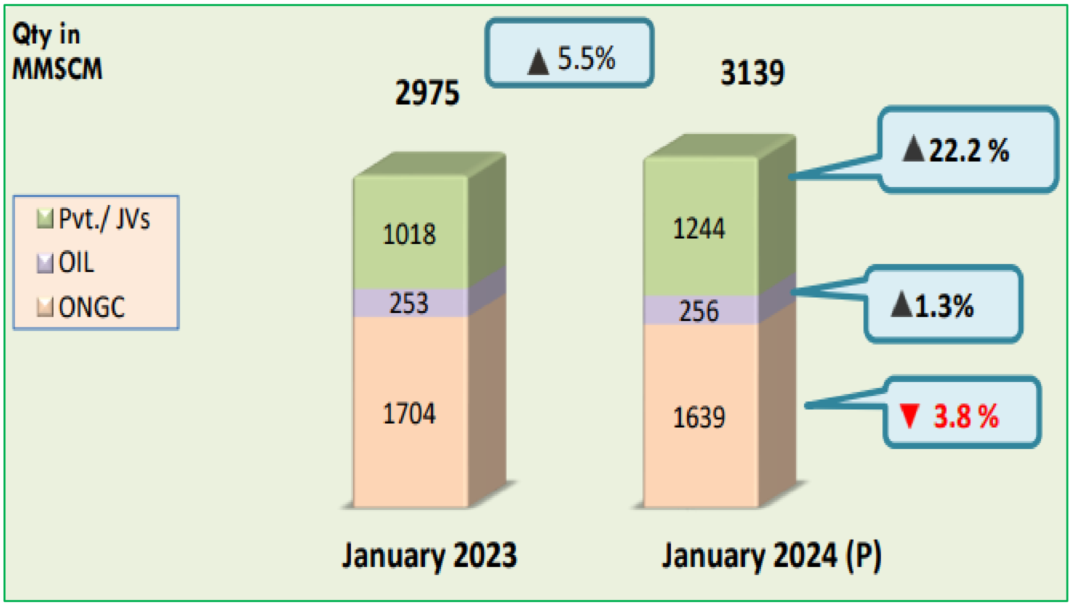
- Total consumption during January 2024 was 6058 MMSCM (provisional). Major consumers were fertilizer (32%), City Gas Distribution (CGD) (19%), Power (12%), Refinery (8%) and Petrochemicals (4%).

Monthly Report on Natural gas production, imports, and consumption – January 2024

1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of January 2024 was 3139 MMSCM (increase of 5.5% over the corresponding month of the previous year).

Figure 16: Domestic natural gas Gross production (Qty in MMSCM)

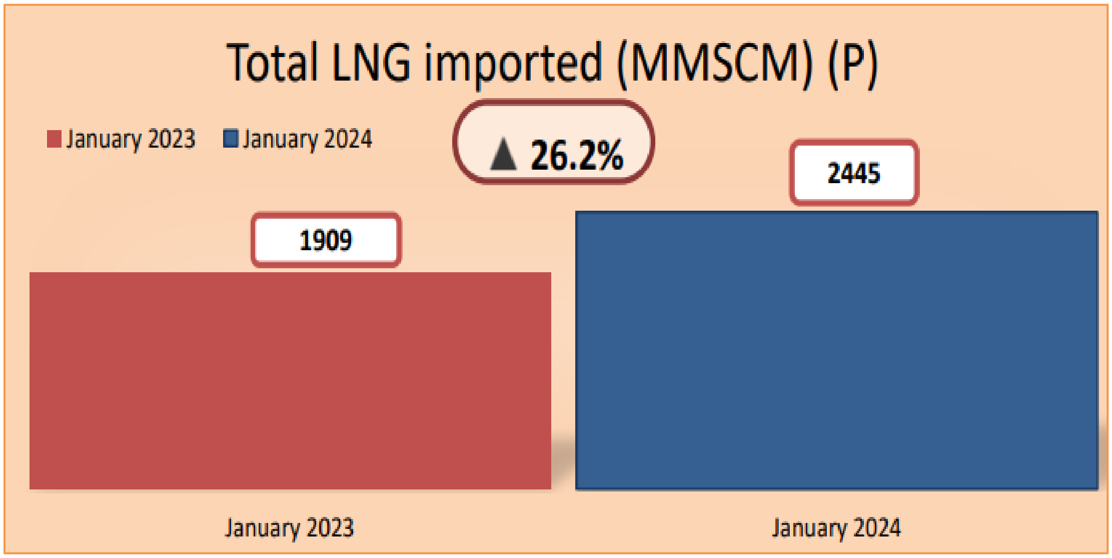


Source- PPAC

2. LNG imports:

Total imports of LNG (provisional) during the month of January 2024 were 2445 MMSCM (increase of 26.2%) over the corresponding month of the previous year 1909 MMSCM.

Figure 17: LNG imports (Qty in MMSCM)

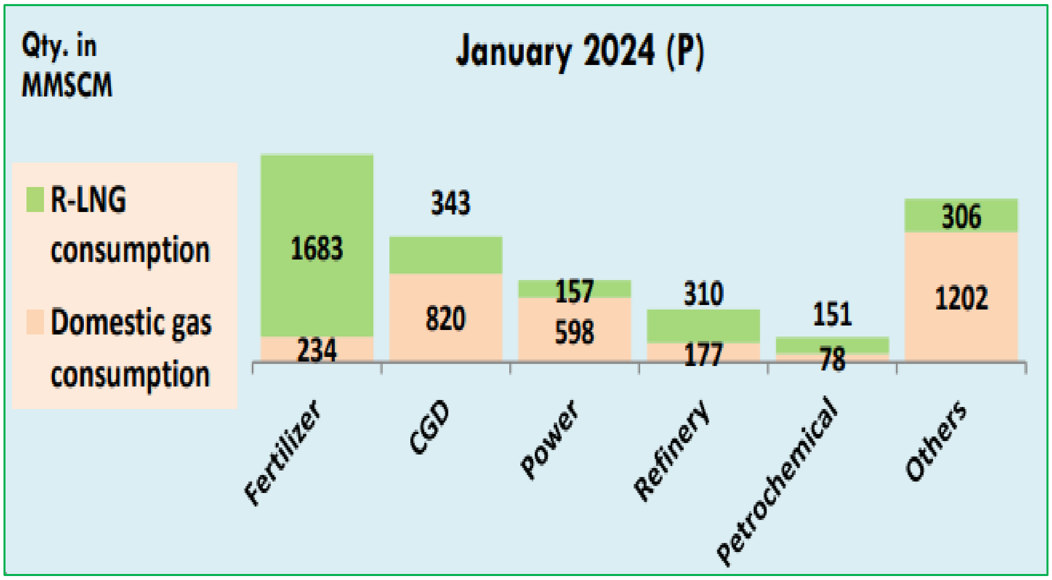


Source- PPAC

3. Sectoral Consumption of Natural Gas:

Major consumers were fertilizer, CGD, power, refinery, petrochemicals among others.

Figure 18: Sectoral Consumption of Natural Gas (Qty in MMSCM) in January 2024



Source- PPAC

Key developments in Oil & Gas sector

- **Monthly Production Report for January, 2024**

1. Production of Crude Oil

Indigenous crude oil and condensate production during January 2024 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 January 2024. There is a growth of 0.7% in crude oil and condensate production during January 2024 as compared to January 2023.

2. Production of Natural Gas

Gross production of natural gas for the month of January 2024 (P) was 3139 MMSCM which was higher by 6% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 30353 MMSCM for the current financial year till January 2024 was higher by 5% compared with the corresponding period of the previous year.

3. Crude Oil Processed (Crude Throughput)

Total Crude oil processed during January 2024 was 22.6 MMT which is 1.1% lower than January 2023, where PSU/JV refiners processed 15.3 MMT and private refiners processed 7.3 MMT of crude oil. Total indigenous crude oil processed was 2.2 MMT and total Imported crude oil processed was 20.4 by all Indian refineries (PSU+JV+PVT). There was a growth of 2.8 % in total crude oil processed in April January FY 2023 – 24 as compared to same period of FY 2022 – 23.

4. Production of Petroleum Products

Production of petroleum products was 23.0 MMT during January 2024 which is 4.3% lower than January 2023. Out of 23.0 MMT, 22.7 MMT was from refinery production & 0.3 MMT was from fractionator. There was a growth of 3.9 % in production of petroleum products in April-January FY 2023 – 24 as compared to same period of FY 2022 – 23. Out of total POL production, in January 2024, share of HSD is 41.4 %, MS 16.3 %, Naphtha 7.3 %, ATF 6.7 %, Pet Coke 5.6 %, LPG 4.8% which are of major products and rest are shared by Bitumen, FO/LSHS, LDO, Lubes & others.

Key Policy developments/significant news in Energy sector

Govt increases windfall tax on crude petroleum to ₹3,200/tonne

The government announced a hike in the windfall tax on petroleum crude, adjusting it to ₹3,200 per tonne from the previous rate of ₹1,700 per tonne, effective February 3, 2024.

However, the windfall tax on diesel and aviation turbine fuel (ATF) also known as jet fuel remains unchanged at zero.

India initially introduced the windfall tax in July 2022 in response to the escalating price of crude oil. This tax is imposed by governments when an industry unexpectedly generates substantial profits, typically attributed to an unprecedented event. A windfall tax is imposed on domestically produced crude oil when the rates of the global benchmark exceed $75 per barrel. For the export of diesel, aviation turbine fuel (ATF), and petrol, the levy is applicable when the product cracks, or margins, surpass $20 per barrel.

Scheme outlay of FAME India Scheme Phase II enhanced from ₹10,000 crore to ₹11,500 crore

To give a further push to clean mobility in the country, the Ministry of Heavy Industries has announced that the scheme outlay of FAME India scheme Phase II has been enhanced from ₹10,000 crore to ₹11,500 crore under FAME India scheme Phase II.

The details of Subsidies for Demand Incentive and Grants for Creation of Capital Assets is as under: -

Category	Revised outlay (Rs. Crore)
e-2W	5,311
e-3W	987
e-4W	750
Total for Subsidies (A)	7,048
e-Buses	3,209
EV PCS	839
Grants for creation of capital assets (B)	4,048
Others (C)	404
Total (A+B+C)	11,500

Further, while enhancing the scheme outlay by of ₹1,500 crore thereby making it ₹11,500 crore scheme from ₹10,000 crore, the scheme is fund and term limited scheme i.e. the subsidies for demand incentive will be eligible for e-2w, e-3w and e-4w sold till March 31, 2024 or till the time funds are available, whichever is earlier.

Government announces an ambitious plan to bolster the electric vehicle (EV) ecosystem- during the Interim Budget 2024-25

In a transformative move towards sustainable transportation, Union Minister for Finance & Corporate Affairs, Smt. Nirmala Sitharaman announced an ambitious plan to bolster the electric vehicle (EV) ecosystem while presenting the Interim Budget 2024-25. This strategic initiative focuses on both manufacturing and charging infrastructure, aiming to fortify and broaden the landscape for electric vehicles.

With a dedicated focus on enhancing public transportation, the government is set to encourage the widespread adoption of electric buses. This will be facilitated through the implementation of a payment security mechanism, fostering confidence among e-bus operators. The initiative is expected to invigorate the public transport network, promoting an eco-friendly and energy-efficient mode of commuting.

This proactive step reflects the government's commitment to fostering a cleaner and greener future, with an emphasis on building a robust foundation for the sustainable growth of the electric vehicle industry.

SECI unveils India's largest solar-battery project, pioneering renewable energy innovation in Chhattisgarh

The Solar Energy Corporation of India Limited (SECI), under the aegis of the Ministry of New and Renewable Energy, has successfully commissioned India's largest Battery Energy Storage System (BESS), which stores energy using solar energy. The 40 megawatts (MW) / 120MWh BESS with a solar photovoltaic (PV) plant which has an installed capacity of 152.325-megawatt hour (MWh)and dispatchable capacity of 100MW AC (155.02 MW peak DC) is in Rajnandga on, Chhattisgarh. The energy would be purchased by the state of Chhattisgarh, thus contributing to meeting the peak energy demand of the state using green electrons and towards its renewable purchase obligations.

The project utilizes battery storage for storing solar energy when the sun is shining and using it later during hours of peak demand in the evening, for meeting the electricity demand in the state. The project has deployed bifacial modules, which reflect the light from the ground, thus generating more electricity than mono facial modules, hence setting a new standard for large-scale renewable energy projects.

A unique aspect of this project is its strategic use of previously unused land. Through a tripartite land-use permission agreement among the Energy Department of the Government of Chhattisgarh, Chhattisgarh State Power Distribution Company Limited (CSPDCL), and SECI, 451 acres of waste land across 9 villages in Tehsil Dongargarh and Dongargaon, District Rajnandgaon, Chhattisgarh, have been repurposed. The project has thus adopted a sustainable approach to energy project development, while minimizing environmental impact.

The project ensures overall power stability and reliability by ensuring an efficient evacuation of power through a 132 kilo-volt (kV) double-circuit double-string transmission line to Chhattisgarh State Power Transmission Company Limited’s (CSPTCL) 220/132 kilovolt (kV) Thelkadih substation, facilitating seamless integration into the existing power grid.

The project has been constructed with funding from the World Bank and Clean Technology Fund under Innovation in Solar Power & Hybrid Technologies Project as well as leveraged financing from domestic lending agencies. This further highlights the collaborative efforts to drive sustainable financial arrangements, making the project commercially attractive and viable.

Government issues Scheme Guidelines for Pilot Projects on use of Green Hydrogen in the Transport Sector

The Government of India has come out with guidelines for undertaking pilot projects for using Green Hydrogen in the transport sector. The "Scheme Guidelines for implementation of Pilot Projects for use of Green Hydrogen in the Transport Sector", have been issued by the Ministry of New & Renewable Energy (MNRE) on February 14, 2024, under the National Green Hydrogen Mission.

With the falling costs of renewable energy and electrolyzes, it is expected that vehicles based on green hydrogen can become cost-competitive over the next few years. Future economies of scale and rapid technological advancements in the field of vehicles powered by hydrogen are likely to further improve the viability of transport based on green hydrogen.

Considering this, under the National Green Hydrogen Mission, along with other initiatives, the MNRE will implement pilot projects for replacing fossil fuels in the transport sector with Green Hydrogen and its derivatives. These pilot projects will be implemented through the Ministry of Road Transport and Highways and the Scheme Implementing Agencies (SIAs) nominated under this Scheme.

The scheme will support development of technologies for use of Green Hydrogen as a fuel in Buses, Trucks and 4-wheelers, based on fuel cell-based propulsion technology / internal combustion engine-based propulsion technology. The other thrust area for the scheme is to support development of infrastructure such as hydrogen refueling stations.

The scheme will also seek to support any other innovative use of hydrogen for reducing carbon emissions in the transport sector, such as blending of methanol / ethanol based on green hydrogen and other synthetic fuels derived from green hydrogen in automobile fuels.

The Scheme will be implemented with a total budgetary outlay of Rs. 496 Crores till the financial year 2025-26.

The use of Green Hydrogen in the transport sector, via the proposed pilot projects, will lead to development of necessary infrastructure including refueling facilities and distribution infrastructure, resulting in establishment of a Green Hydrogen ecosystem in the transport sector. With the expected reduction in the Green Hydrogen production cost over the years, the utilization in the transport sector is expected to increase.

Government issues Pilot Project Guidelines for utilizing Green Hydrogen in Steel Sector

The Government of India has come out with guidelines for undertaking pilot projects for using green hydrogen in the steel sector. The guidelines, named "Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Steel Sector under the National Green Hydrogen Mission", have been issued by the Ministry of New & Renewable Energy (MNRE) on 2nd February, 2024.

Under the National Green Hydrogen Mission, along with other initiatives, MNRE will implement pilot projects in the Steel Sector, for replacing fossil fuels and fossil fuel-based feedstock with Green Hydrogen and its derivatives. These pilot projects will be implemented through the Ministry of Steel and the Implementing Agencies nominated under this Scheme.

Three areas have been identified as thrust areas for the pilot projects in the steel sector. These are use of Hydrogen in Direct Reduced Ironmaking process; use of Hydrogen in Blast Furnace; and substitution of fossil fuels with Green Hydrogen in a gradual manner. The scheme will also support pilot projects involving any other innovative use of hydrogen for reducing carbon emissions in iron and steel production.

The scheme envisages that considering the higher costs of green hydrogen at present, steel plants could begin by blending a small %age of green hydrogen in their processes, and increasing the blending proportion progressively, with improvement in cost-economics and advancement of technology. The guidelines also note that upcoming steel plants should be capable of operating with green hydrogen, thus ensuring that these plants are able to participate in future global low-carbon steel markets. The scheme will also consider greenfield projects aiming at 100% green steel.

The Scheme will be implemented with a total budgetary outlay of Rs. 455 crores till FY 2029-30.

The use of Green Hydrogen and its derivatives in the steel sector, through the proposed pilot projects, will lead to the development of necessary infrastructure for use of Green Hydrogen in the Iron & Steel industry, resulting in establishment of a Green Hydrogen ecosystem in the steel sector. The utilization of green hydrogen in the steel industry is expected to increase over the years, with the expected reduction in its production cost.

Government issues Guidelines for Pilot Projects for utilizing Green Hydrogen in Shipping Sector

The Government of India has come out with guidelines for undertaking pilot projects for using green hydrogen in the shipping sector. The guidelines, named "Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Shipping Sector", have been issued by the Ministry of New & Renewable Energy (MNRE) on 1st February, 2024, under the National Green Hydrogen Mission.

Under the Mission, along with other initiatives, the Ministry of New & Renewable Energy will implement pilot projects in the shipping sector, for replacing fossil fuels and fossil fuel-based feedstock with Green Hydrogen and its derivatives. These pilot projects will be implemented through the Ministry of Ports, Shipping and Waterways (MoPSW) and the implementing agencies nominated under this Scheme.

Two areas have been identified as thrust areas under the pilot projects. These are retrofitting of existing ships so as to enable them to run on Green Hydrogen or its derivatives; and development of bunkering and refueling facilities in ports on international shipping lanes for fuels based on Green Hydrogen.

The Scheme will be implemented with a total budgetary outlay of Rs. 115 crores till the financial year 2025-26.

The use of Green Hydrogen and its derivatives in the shipping sector, through the proposed pilot projects, will lead to the development of necessary infrastructure including refuelling stations, storage, and distribution networks, resulting in the establishment of a Green Hydrogen ecosystem in the shipping sector. The utilization of green hydrogen in the shipping industry is expected to increase over the years, with the expected reduction in its production cost.

Government invites bids for Development of 4 GW Off-shore Wind Energy Projects off the coast of Tamil Nadu

The Government of India has invited bids for the development of off-shore wind energy of a total capacity of 4 GW. The bids invited are for four blocks of 1 GW each on open access basis, for development of offshore wind power projects off the coast of Tamil Nadu, through international competitive bidding. Under this arrangement, the developers who win the bid for each block will set up 1 GW off-shore wind energy capacity and sell electricity directly to consumers under the open access regime. No Viability Gap Funding (VGF) is given under the open access bids, and the Renewable Energy generated will be sold to entities such as industries which are currently in the high-tariff band.

The advantages of off-shore wind are many. It does away with constraints of availability of land; it has higher Capacity Utilization Function (CUF) - approaching almost 50%. Further, the efficiencies of off-shore wind turbines are higher than those of on-shore wind turbines; each turbine is of 15 MW.

The off-shore wind energy bids have been invited through Solar Energy Corporation of India (SECI), a Government of India undertaking under the administrative control of the Ministry of New and Renewable Energy. The bids are being called after obtaining all necessary environmental clearances. The Notice Inviting.

Cabinet approves marketing margin for supply of Domestic gas to Fertilizer (Urea) for the Period May 2009 – November 2015

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has given its approval for determination of Marketing Margin on supply of domestic gas to Fertilizer (Urea) Units for the period from May 1, 2009 to November 17, 2015.

This approval is a structural reform. Marketing Margin is charged by gas marketing company from consumers over and above the cost of gas for taking on the additional risk and cost associated with marketing of gas. Government had previously determined marketing margin on supply of domestic gas to urea and LPG producers in 2015.

The approval will provide additional capital to the various Fertilizer (Urea) Units for the component of marketing margins paid by them on domestic gas procured during the period 01.05.2009 to 17.11.2015, based on rates already being paid from 18.11.2015 onwards.

In line with government vision of AatmaNirbhar Bharat, this approval will incentivize manufacturers to increase investment. The increased investment will lead to self-sufficiency in fertilizers, and provide an element of certainty for future investments in gas infrastructure sector.

IEW 2024 concludes in Goa with immense success

The second edition of India Energy Week 2024 in Goa concluded successfully with an announcement that the next edition of the global energy conclave will be held at Yashobhoomi in New Delhi between February 11-14, 2025.

Hon'ble Union Minister of Petroleum & Natural Gas and Housing & Urban Affairs Shri Hardeep Singh Puri also announced that the fourth edition of the global conclave in 2026 will be back in Goa at the IPSHEM-ONGC-Training Institute.

The four-day event, inaugurated by the Hon'ble Prime Minister Shri Narendra Modi, featured global oil, gas, biofuels and renewable companies exhibiting their products and services. The platform allowed the global energy ecosystem to collaborate, innovate and grow through meaningful partnerships across the energy spectrum.

Highlights of India Energy Week 2024 Goa:

- Hon'ble Prime Minister Shri Narendra Modi inaugurated the second edition of IEW 2024 in Goa. In his inaugural address PM Modi emphasized India's commitment to unprecedented levels of investment in the energy sector while addressing the gathering of global energy leaders. The Prime Minister also underlined that the massive government spending in the sector will create new avenues for investment in India.
- Hon'ble Prime Minister Shri Narendra Modi also inaugurated the integrated Sea Survival Training Centre, ONGC Institute in Goa. PM Modi also witnessed a briefing on underwater escape exercises and a demonstration of the training center.
- Later in the day, Hon'ble Union Minister of Petroleum & Natural Gas and Housing & Urban Affairs Shri Hardeep Singh Puri participated in a ministerial panel titled ''Ensuring energy security for nations and industry in a VUCA world" along with Hon'ble Minister (s), Saad bin Sherida Al Kaabi, Energy Affairs, Cabinet minister, Qatar; Vickram Bharrat, Minister of Natural Resources Republic of Guyana and Secretary General OPEC, Haitham Al Ghais.
- In another session during the day, ONGC Chairman Shri Arun Kumar Singh while participating in a panel discussion titled 'The industry's role in securing affordable energy access – balancing growing demand and sustainable supply' said that India's energy demand will continue to grow over the coming years and will only begin to taper off after 17-18 years.
- The International Energy Agency (IEA) released a report 'Indian Oil Market: Outlook to 2030' stating India will become the largest source of global oil demand growth between 2024 and 2030.
- India's G20 Sherpa and former CEO Niti Aayog Amitabh Kant while speaking at a ministerial panel titled 'South-South Cooperation: Energy for Inclusive Growth' said that India will become an exporter of clean energy by 2047. India's G20 Sherpa Kant said that the country will achieve the milestone by exporting green hydrogen.
- Hon'ble Union Minister of Petroleum & Natural Gas and Housing & Urban Affairs, Shri Hardeep Singh Puri in a press conference commended the technology innovations showcased at the second edition of IEW 2024 in Goa. He said that India has achieved 12% ethanol blending with petrol five months

ahead of the estimated target and this has led the government to revise the target of 20% ethanol blending by five years to 2025.

- Shri Pankaj Jain, Secretary, Ministry of Petroleum & Natural Gas while speaking at the Spotlight Session titled 'India - a blueprint of energy transition for emerging economies' said that India's emergence as the demand center for energy in the world provides arbitrage opportunities around the globe for procuring natural gas.
- Bharat Petroleum Corporation Limited (BPCL) announced the launch of 'Pure for Sure.' The initiative, inaugurated by the Hon'ble Union Minister of Petroleum and Natural Gas and Housing and Urban Affairs, Shri Hardeep Singh Puri aims to eradicate last-mile delivery inefficiencies and elevate customer satisfaction to unprecedented levels.
- The Hon'ble Union Minister of Petroleum and Natural Gas and Housing and Urban Affairs and Secretary, Petroleum also awarded the winners of Energy Startup Challenge at the closing ceremony of IEW, 2024. The first prize went to Iron Technologies, while Vasitara Private Limited bagged the runner-up trophy. The third place was awarded to Aloe Ecell.

Union Power and New & Renewable Energy Minister finalizes mechanisms for deployment of Battery Energy Storage Systems to deliver Round-the-Clock Renewable Energy

The Union Minister for Power and New & Renewable Energy, Shri R. K. Singh, chaired a meeting in New Delhi on February 22, 2024, to finalize the structure for operationalizing the scheme for Viability Gap Funding (VGF) for development of Battery Energy Storage Systems (BESS) with capacity of 4,000 Megawatt Hours (MWh).

The Power and New & Renewable Energy Minister said that the price of Battery Energy Storage Systems (BESS) has come down in recent years. He stated that the government will encourage setting up of BESS capacity to meet the fast-growing needs of power demand as well as energy transition. The Minister stated that a situation will arise in future where we have extra solar energy during the day and extra wind energy during the evening, which would go waste if adequate storage system is not deployed to store and utilize it when needed. Noting that the role of government is to create enabling structures so that investment can come in, the Minister said that he wants this system to fructify in a manner which provides energy at those times of the day and year when the nation needs it the most.

It was discussed that the BESS should be able to deliver electricity during period of peak demand while as the same time stabilizing the grid. The power shall be supplied through different market segments in power exchanges. The charging of BESS would be done primarily from renewable sources during times when power generated from solar and wind sources is available.

Various models for procuring the BESS, such as those based on energy contracts and capacity contracts, were discussed in the meeting. The pros and cons of these models were discussed, along with the challenges associated with their implementation.

Various sites in states rich in renewable energy were discussed as potential locations for BESS, to get maximum benefit from the storage system.

Government amends Electricity (Rights of Consumers) Rules

The Government of India has approved amendments to the Electricity (Rights of Consumers) Rules, 2020. Issuing the amendments, the Union Minister for Power and New & Renewable Energy Shri R. K. Singh stated that these amendments further reduce the timeline for getting new electricity connections and that they simplify the process of setting up rooftop solar installations. The Minister informed that the amendments empower consumers living in multistoried flats in choosing their connection type and ensure separate billing for common areas and back-up generators in residential societies, thus enhancing transparency. The amendments also provide for check meters to be installed by distribution company in case of consumer complaints, to verify electricity consumption.

The major amendments made are as follows.

- Facilitating Easier and Faster installation of Rooftop Solar Systems

  Amendments have been made in the Rules, to facilitate faster installation and enhance the ease of setting up Rooftop Solar PV systems at the premises of prosumers.

  Exemption has been given for the requirement of technical feasibility study, for systems up to a capacity of 10 kW. For systems of capacity higher than 10 kW, the timeline for completing the feasibility study has been reduced from twenty days to fifteen days. Further, in case the study is not completed within the stipulated time, the approval will be deemed to have been given. Additionally, it has now been mandated that the distribution system strengthening necessary for rooftop solar PV systems up to 5 kW capacity will be done by the distribution company at its own cost.

  Further, the timeline for the distribution licensee to commission Rooftop Solar PV systems has been reduced from **thirty days to fifteen days**.

- Separate Connections for Electric Vehicle Charging Stations

  Consumers can now obtain **separate electricity connections** for charging their **Electric Vehicles (EVs)**. This aligns with the country's goal of reducing carbon emissions and reaching Net Zero by the year 2070.

- New connections and change in existing connections to be obtained faster

  The time for obtaining a new electricity connection under the Rules has been reduced from **seven days to three days** in metropolitan areas, from **fifteen days to seven days** in other municipal areas, and from **thirty days to fifteen days** in rural areas. However, in rural areas with hilly terrain, the time for new connections or for modifications in existing connections will remain thirty days.

- **Additional Rights for Consumers in Residential Colonies and Flats**

  Provisions have been introduced in the Rules, to enhance consumer choice and promote greater transparency in metering and billing.

Owners residing in co-operative group housing societies, multi-storied buildings, residential colonies, etc., will now have the option to choose from the distribution licensee either individual connections for everyone or a single-point connection for the whole premises. Metering, billing, and collection will be done separately for: (i) individual electricity consumption sourced from the distribution licensee, (ii) individual consumption of backup power supplied by the residential association, and (iii) electricity consumption for common areas of such residential associations, which is sourced from the distribution licensee.

- Mandatory Additional Meter in cases of Complaints

In cases where consumers raise complaints about meter reading not aligning with their actual electricity consumption, the distribution licensee is now required to install an additional meter within five days from the date of receipt of the complaint. This additional meter will be used to verify the consumption for a minimum period of three months, thus reassuring consumers and ensuring accuracy in billing.

Cabinet approves PM-Surya Ghar: Muft Bijli Yojana for installing rooftop solar in One Crore households

The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi, has approved PM-Surya Ghar: Muft Bijli Yojana with a total outlay of Rs.75,021 crore for installing rooftop solar and providing free electricity up to 300 units every month for One Crore households. The Prime Minister had launched the scheme on 13th February, 2024.

The major highlights of the scheme include:

Central Financial Assistance (CFA) for Residential Rooftop Solar

I. The scheme provides a CFA of 60% of system cost for 2 kW systems and 40% of additional system cost for systems between 2 to 3 kW capacity. The CFA will be capped at 3 kW. At current benchmark prices, this will mean Rs 30,000 subsidy for 1 kW system, Rs 60,000 for 2 kW systems and Rs 78,000 for 3 kW systems or higher.
II. The households will apply for subsidy through the National Portal and will be able to select a suitable vendor for installing rooftop solar. The National Portal will assist the households in their decision-making process by providing relevant information such as appropriate system sizes, benefits calculator, vendor rating etc.
III. Households will be able to access collateral-free low-interest loan products of around 7% at present for installation of residential RTS systems up to 3 kW.

Other Features of the Scheme

I. A Model Solar Village will be developed in each district of the country to act as a role model for adoption of rooftop solar in rural areas,
II. Urban Local Bodies and Panchayati Raj Institutions shall also benefit from incentives for promoting RTS installations in their areas.

III. The scheme provides a component for payment security for renewable energy service company (RESCO) based models as well as a fund for innovative projects in RTS.

Outcome and Impact

I. Through this scheme, the households will be able to save electricity bills as well as earn additional income through sale of surplus power to DISCOMs. A 3 kW system will be able to generate more than 300 units a month on an average for a household.
II. The proposed scheme will result in addition of 30 GW of solar capacity through rooftop solar in the residential sector, generating 1000 BUs of electricity and resulting in reduction of 720 million tonnes of CO_2 equivalent emissions over the 25-year lifetime of rooftop systems.
III. It is estimated that the scheme will create around 17 lakh direct jobs in manufacturing, logistics, supply chain, sales, installation, O&M and other services.

Availing Benefits of PM-Surya Ghar: Muft Bijli Yojana

The Government has launched a massive campaign since the launch of the scheme for raising awareness and generating applications from interested households. Households can register themselves on https://pmsuryaghar.gov.in to avail benefits under the scheme.

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