

(This document comprises news clips from various media in which Balmer Lawrie is mentioned, news related to GOI and PSEs, and news from the verticals that we do business in. This will be uploaded on intranet and website every Monday.)

Ind-Ra cuts India's FY21 GDP growth further to 1.9%, lowest in 29 yrs

India Ratings (Ind-Ra) has further slashed its growth expectations for the economy to 1.9% for the ongoing fiscal, down from 3.6% in March, according to its latest report on Monday. This will be the lowest GDP growth in the last 29 years and is based on the assumption that the partial lockdown will continue till mid-May, the report said. The last time India experienced such low levels of growth was during FY1992 at 1.1%. The ratings agency forecast a contraction of 2.1% for FY21 if the lockdown continued beyond mid-May, which would take the economy to a 41-year low and would count as only the sixth instance of negative growth. According to the report, the Reserve Bank of India's (RBI) monetary policy intervention has so far not taken effect due to prevailing risk aversion in the market. "The RBI injected liquidity worth about 3.2% of GDP since February 2020 and the systemic liquidity surplus, as reflected in net absorptions under the liquidity adjustment facility, averaged INR4.36 trillion during 27 March – 14 April 2020," it said.

The Economic Times - 28.04.2020

<https://economictimes.indiatimes.com/news/economy/indicators/ind-ra-cuts-indias-fy21-gdp-growth-further-to-1-9-lowest-in-29-yrs/articleshow/75403539.cms>

Moody's slashes India growth forecast to 0.2 per cent for 2020

Moody's Investors Service on Tuesday slashed India growth forecast for calendar year 2020 to 0.2 per cent, from 2.5 per cent projected in March. For 2021, Moody's expects India's growth to rebound to 6.2 per cent. In its report titled - Global Macro Outlook 2020-21 (April 2020 update), Moody's has lowered G-20 advanced economies as a group to contract by 5.8 per cent in 2020. Moody's said the economic costs of coronavirus crisis amid the near shutdown of the global economy are accumulating rapidly. It expects G-20 advanced economies as a group to contract by 5.8 per cent in 2020. Even with a gradual recovery, 2021 real GDP in most advanced

Deteriorating fiscal outlook may put pressure on India's sovereign rating: Fitch

Fitch Ratings on Tuesday warned that deterioration in India's fiscal outlook as a result of lower growth could put pressure on its sovereign rating at a time when government is contemplating to announce a stimulus package for the MSMEs and informal sector. "Fiscal easing to support growth is likely to be announced, given the extended lockdown. Further deterioration in the fiscal outlook as a result of lower growth or fiscal easing could pressure the sovereign rating in light of the limited fiscal headroom India had when it entered this crisis," the rating agency said in a statement. Fitch said its assessment of India's rating in such a scenario would be guided by its judgement of the country's probable medium-term fiscal path in the post-crisis environment. "The government may tighten fiscal policy again once the pandemic is under control, but India's record of meeting fiscal targets and implementing fiscal rules has been mixed in recent years, which will colour our assessment of any official commitment to tighten fiscal policy over the medium term," it added.

Mint - 29.04.2020

<https://www.livemint.com/politics/policy/deteriorating-fiscal-outlook-may-put-pressure-on-india-s-sovereign-rating-fitch-11588061699390.html>

Crissil: loss at 4% of GDP; S&P cuts growth to 1.8%

India will see a permanent loss of 4% of gross domestic product (GDP) or Rs 9 lakh crore because of the disruptions triggered by the Covid-19 pandemic, said rating agency CRISIL. The country would have to grow at an extraordinary 8.5% for each of the coming three financial years in order to recover the loss, said DK Joshi, chief economist at CRISIL. "We do not see India catching up with its normal trend line of growth even if the economy grows at 7% from FY22 onward for the next three years. That's because the hit is very large and the ability to support the economy is also limited," Joshi said during a teleconference on

economies is expected to be below pre-coronavirus levels. China's economy is forecast to grow by 1 per cent in 2020. "India extended a nationwide lockdown to 40 days from 21 days, but relaxed restrictions in rural areas to facilitate agricultural harvesting in the second half of April. The country has determined that many of these areas are free of the virus. India also plans a phased opening of different regions while continuing to carry out identification and contract tracing," Moody's said.

The Economic Times - 29.04.2020

<https://economictimes.indiatimes.com/news/economy/indicators/moodys-slashes-india-growth-forecast-to-0-2-per-cent-for-2020/articleshow/75432876.cms>

India Inc staring at 15% profit erosion in FY21, 10% revenue decline: CRISIL

India Inc is staring at a bleak and forgettable fiscal year FY21, which is likely to see a 10 percent fall in revenues and at least 15 percent erosion in profits due to the COVID-19 pandemic, domestic ratings agency CRISIL said on Thursday. Loan servicing can become difficult as a result of the troubles, its research wing said, estimating banks' non-performing assets (NPAs) to rise by up to 2 percentage points to 11.5 percent, and credit growth to slow down to 2 percent. At present, the country is under a 40-day lockdown till May 3, and there are indications of it being gradually withdrawn. CRISIL estimated one month of the lockdown to shave off 3 percentage points from the gross domestic product (GDP) and warned that its base case of 1.8 percent growth for FY21 may fall to zero if the lockdown continues. Its chief economist Dharmakirti Joshi said up to 4 percent of the GDP will be lost permanently as a result of the crisis, which will lead to scores getting unemployed. He said the fiscal support worth Rs 1.7 lakh crore announced till now is inadequate to fight the crisis.

Moneycontrol - 30.04.2020

<https://www.moneycontrol.com/news/india/india-inc-staring-at-15-profit-erosion-in-fy21-10-revenue-decline-crisil-5207831.html>

US economy shrank at 4.8% rate last quarter as virus struck

The U.S. economy shrank at a 4.8% annual rate last quarter as the coronavirus pandemic shut down much of the country and began triggering a recession that will end the longest expansion on record. The Commerce Department says the gross domestic product, the total output of goods and services, posted a quarterly drop for the first time in six years. And it was the sharpest fall since the

the impact of Covid-19 on the Indian economy on Thursday. Only exceptional circumstances and policy action could enable India to recover the loss, said Joshi. "In order to catch up India would need an extraordinary and never seen before growth of 8.5% per annum between FY22 and FY24, that will ensure the lost GDP is recovered. But we require exceptional policy action and circumstances for that," he said. Joshi said the fiscal response to the crisis has not been adequate.

The Economic Times - 01.05.2020

<https://epaper.timesgroup.com/Olive/ODN/Th/eEconomicTimes/shared/ShowArticle.aspx?doc=ETKM%2F2020%2F05%2F01&entity=Ar00711&sk=0CB7305E&mode=text>

Lockdown impact: 65% companies expect 40% hit to revenue in Q1

A significant majority — 65% of firms expected a substantial hit to revenues of about 40% in the April-June quarter, found the survey of 300 CEOs, conducted by the Confederation of Indian Industry (CII). As many as 45% of the 300 firms surveyed expected a protracted economic recovery of over a year before things go back to normal. Among the many reasons for the declining trend, a majority of firms at 74.8% cited the complete shutdown of operations and just over half or 53.1% cited a lack of demand. Other major reasons included disruptions in supply and distribution chains and lack of credit, manpower and raw materials. Taking cognisance of the deteriorating industry expectations, Chandrajit Banerjee, director general, CII said "While the lockdown was necessary to mitigate the impact of coronavirus on the population, it has had dire implications for economic activity. At this hour, the industry awaits a stimulus package for economic revival and livelihood sustenance besides calibrated exit from lockdown."

The Economic Times - 04.05.2020

<https://economictimes.indiatimes.com/news/company/corporate-trends/lockdown-impact-65-companies-expect-40-hit-to-revenue-in-q1/articleshow/75523482.cms>

Pandemic could fuel demand for 'diaspora bonds', says World Bank

The coronavirus pandemic and its devastating economic impact on developing countries could fuel fresh interest in so-called diaspora bonds that allow migrants to support their countries of origin, experts from the World Bank and other groups say. Dilip Ratha, the World Bank's lead economist on migration and remittances, told Reuters that diaspora bonds could generate

economy shrank at an 8.4% annual rate in the fourth quarter of 2008 in the depths of the Great Recession. Forecasters say the drop in the January-March quarter will be only a precursor of a far grimmer GDP report to come on the current April-June period, with business shutdowns and layoffs striking with devastating force. The Congressional Budget Office has estimated that GDP will plunge this quarter at a 40% annual rate. That would be, by a breath-taking margin, the bleakest quarter since such records were first compiled in 1947. It would be four times the size of the worst quarterly contraction on record set in 1958.

The Economic Times - 30.04.2020

<https://economictimes.indiatimes.com/news/international/business/us-economy-shrank-at-4-8-rate-last-quarter-as-virus-struck/articleshow/75452143.cms?from=mdr>

Core sector's monthly fall in March biggest in 8 yrs

The eight core sector industries, which account for over 40% of the index of industrial production (IIP), slumped 6.5% in March — the steepest monthly fall since the series was constructed in 2011-12 — as the deadly coronavirus severely hit output across sectors and highlighted the pain ahead for the industrial sector. Coal was the sole segment that recorded growth, as the remaining seven saw lower production with cement, steel and fertiliser reporting double-digit decline. Although the nationwide lockdown started in the last week of March, several states had taken measures before that and companies had begun readjusting their production, factoring in the spread of the virus. Including the previous series (which is strictly not comparable), this is the sharpest monthly decline since April 2005. Economists warned that the core sector index paints a grim picture for IIP and the situation could deteriorate in April, when there was a nationwide lockdown. The 40-day lockdown has stalled economic activity but now the Centre has allowed some manufacturing units to restart, while there are expectations that there will be staggered exit from the lockdown.

The Times of India - 01.05.2020

<https://epaper.timesgroup.com/Olive/ODN/TimesOfIndia/shared/ShowArticle.aspx?doc=TOIKM%2F2020%2F05%2F01&entity=Ar01106&sk=59617098&mode=text>

Government may reset its divestment targets for FY20

The Centre is likely to keep divestment of big companies on hold and recalibrate its targets, especially since it had to extend the deadline to

about \$50 billion a year in total for developing countries, potentially helping to offset a sharp drop in foreign direct investment that is slated to fall by 37 per cent this year. However, such claims have met with scepticism in some quarters, given the plight of many migrants who have lost jobs and income during the crisis and as direct transfers of wages to their home countries - known as global remittances - decline sharply. World Bank officials warned that developing economies could suffer close to a 3 per cent decline in economic output if consumption and investment do not rebound quickly after the coronavirus pandemic.

The Economic Times - 30.04.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/pandemic-could-fuel-demand-for-diaspora-bonds-says-world-bank/75445210>

Govt eyes ordinance route for Cos Act amendments

The government is considering a fresh ordinance to amend the Companies Act to decriminalise several offences, apart from allowing Indian companies to directly list overseas. The ministry of corporate affairs has begun discussions on fast-tracking the amendments and may approach the Union Cabinet shortly, sources told TOI. The government had introduced a Bill to amend the law during the last session of Parliament, but it could not be cleared. The move comes days after the Cabinet recommended promulgation of an ordinance to amend the Insolvency and Bankruptcy Code to disallow fresh filings for up to 12 months. "Companies need more flexibility on compliance due to Covid-19. The government is keen to ensure that there are fewer complications in case of non-compliance," a government source told TOI. The Bill to decriminalise the Companies Act followed recommendations by a committee headed by corporate affairs secretary Injeti Srinivas and several industry representatives.

The Times of India - 29.04.2020

<https://epaper.timesgroup.com/Olive/ODN/TimesOfIndia/shared/ShowArticle.aspx?doc=TOIKM%2F2020%2F04%2F29&entity=Ar01313&sk=CC6EF720&mode=text>

8.2 lakh workers dip into retirement savings to survive in lockdown

Around 8.2 lakh members of retirement fund body EPFO and private PF trusts have dipped into their savings and withdrew Rs 3,243.17

bid for Air India for second time in a row due to the pandemic situation. It had on Tuesday extended the deadline for submission of Expressions of Interest (EoI) to bid for Air India by two months to June 30, given the ongoing nationwide lockdown. The date was earlier extended to April 30 from March 17. "The aviation sector is badly hit and investors' sentiment is low. So, it was decided to extend the date for submission of EoI again to June 30," said a senior finance ministry official. Under the current terms, the successful bidder will have to absorb Air India's Rs. 23,286.5 crore debt, which is not quite lucrative given that aviation is hit the worst due to the virus outbreak. It's not just Air India, the divestment of even BPCL and other firms are likely to be put on the back burner. Strategic disinvestments of Air India and BPCL are crucial for the Centre to meet its Rs. 2.1 lakh crore target in FY 21.

The New Indian Express - 30.04.2020

<https://www.newindianexpress.com/business/2020/apr/30/government-may-reset-its-divestment-targets-for-fy20-2137283.html>

Moody's lowers WTI, Brent oil price assumptions through 2020-21

Moody's Investors Service on Wednesday reduced its near-term oil price assumptions for the US and global crude benchmarks believing that a deeper economic recession in the US and other leading economies further reduces demand for oil products before an economic recovery in 2021. For this year, the rating agency lowered its base-case Brent price assumption to \$35 per bbl and WTI prices to average \$30 per barrel, as per a release. Moody's price assumption for Brent and WTI in 2021 is \$45 and \$40 per barrel respectively. The agency highlighted that Oil production will decline in 2020-21 because of both the agreed OPEC+ deal and production shut-ins in the US and Canada. "Exceptionally weak short-term prices will persist until production drops enough to ease the strain on storage facilities already operating at or close to full capacity," says Moody's VP – Senior Credit Officer Elena Nadtotchi. "Significant supply adjustments in due course should help to balance the market later in 2020, but the pace of the market's rebalancing and rising oil prices will depend on demand recovery."

The Economic Times - 29.04.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/moodys-lowers-wti-brent-oil-price-assumptions-through-2020-21/75442346>

Oil majors, governments haggle over sharing pain of deepest cuts yet

crore to sustain in the lockdown imposed by the government to contain COVID-19. Earlier last month on March 28, the Employees Provident Fund Organisation (EPFO) had allowed formal sector workers under its ambit to withdraw a non-refundable advance from their retirement savings to deal with hardships due to lockdown. "EPFO under Union Ministry of Labour Union Ministry of Labour & Employment, has settled a total of 12.91 lakhs claims, including 7.40 lakhs COVID-19 claims under Pradhan Mantri Garib Kalyan Yojana (PMGKY) package," a Labour Ministry statement said. Claims settlement involves disbursement of total amount of Rs 4,684.52 crore which includes Rs 2,367.65 crore COVID claims under the PMGKY package. The exempted private PF trusts have also risen to the occasion amidst the COVID-19 pandemic, the ministry said.

The Economic Times - 29.04.2020

<https://economictimes.indiatimes.com/wealth/personal-finance-news/8-2-lakh-workers-dip-into-retirement-savings-to-survive-in-lockdown/articleshow/75430703.cms?from=mdr>

Goldman 'patiently bullish' on oil as fundamentals improve

Goldman Sachs Commodities Research on Friday raised its second-quarter and full-year forecasts for global oil benchmark Brent crude futures, citing signs of improvement in fundamentals with quickly declining supplies and improving demand as lockdown measures are eased gradually. The Wall Street bank raised its second-quarter 2020 Brent price forecast to \$25 per barrel from \$20 previously, while also slightly raising its full-year forecast for Brent to \$35.8 per barrel from \$35.2. Its forecast would still leave oil prices down sharply on the year. Brent averaged \$64.16 a barrel in 2019, so Goldman's upwardly revised forecast of \$35.80 for this year would still represent a decline of about 44 per cent. "It now appears likely that the market is passing its test on storage capacity, due to improving fundamentals, new creative forms of storage being put in place and a likely c.1 million barrels per day (mbpd) smaller May surplus than previously expected," the bank said in a note.

The Economic Times - 03.05.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/goldman-patiently-bullish-on-oil-as-fundamentals-improve/75499570>

Petrol demand declines 61%, diesel down 57% in April

From Kazakhstan and Azerbaijan to Nigeria and Angola, oil majors are haggling with national governments over how to share out deep production cuts that add to their pain from low oil prices and depressed fuel sales because of the coronavirus pandemic. Oil majors have traditionally escaped big cuts in OPEC nations, such as Nigeria, and have never experienced curbs in countries outside the OPEC club, such as Kazakhstan, where they are protected by special clauses agreed with governments. But those production sharing agreements (PSA) are being laid aside following a pact between the Organization of the Petroleum Exporting Countries and its allies (OPEC+) to cut production by 23 per cent to bolster prices as coronavirus lockdowns reduce global energy demand by a third. Such unprecedented output reductions, effective from May 1, are impossible in most nations without the help of majors. Azerbaijan has already asked its BP-led group to cut offshore output, and Kazakhstan was close to a deal with majors to reduce their production as well, sources familiar with the matter said.

The Economic Times - 30.04.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/oil-majors-governments-haggle-over-sharing-pain-of-deepest-cuts-yet/75440701>

Steepest fall in demand for energy since WWII: IEA

The International Energy Agency on Thursday said renewables will be the only energy source that will be resilient to the coronavirus pandemic wiping out demand for energy the most since World War II and seven times greater than the slump caused by the global financial crisis. According to the agency's World Energy Review, energy demand is expected to fall 6% this year. In absolute terms, this is unprecedented and equivalent of losing the entire energy demand of India, the world's third-largest energy consumer. Each month of worldwide lockdown at the levels seen in early April is projected to reduce annual global energy demand by about 1.5%. The report said electricity demand is set to decline by 5% in 2020, the largest drop since the Great Depression of the 1930s. This is because lockdowns have resulted in significant declines in overall electricity demand, with consumption levels and patterns on weekdays looking like those of a pre-crisis Sunday. Full lockdowns have pushed down electricity demand by 20% or more such as in India, which has seen a 26% drop in consumption.

The Times of India - 01.05.2020

<https://epaper.timesgroup.com/Olive/ODN/TimesOfIndia/shared/ShowArticle.aspx?doc=TOIKM%2>

Petrol and diesel sales by state firms dropped by a record 61% and 56.5%, respectively, in April from a year earlier but an improvement in demand in the second half of the month signalled the worst was probably over, industry executives said. Fuel sales have crashed as the nationwide lockdown has kept most people indoors, vehicles off the roads, planes grounded and factories silent. The lockdown's partial easing since April 20 slightly improved fuel demand as the government permitted some economic activity and eased mobility restrictions, executives said. Petrol sales decline of 61% for the full month is an improvement over 64% decline in the first half of April. Similarly, diesel sales for the month fell 56.5%, better than the 61% drop witnessed in the first half of April. Jet fuel sales dropped 91.5% in April, slightly better than 94% drop witnessed in the first half, as increased cargo flights and rescue missions used up some fuel. The sales data is for state-run companies, which control about 90% of the domestic market. By contrast, the sale of cooking gas, or liquefied petroleum gas (LPG), which had risen by 21% in the first half of April moderated in the second half.

The Economic Times - 02.05.2020

<https://epaper.timesgroup.com/Olive/ODN/TheEconomicTimes/shared/ShowArticle.aspx?doc=ETM%2F2020%2F05%2F02&entity=Ar00708&sk=CD8338B1&mode=text>

Lockdown cuts India's energy demand by 30%, says IEA

India's 40-day long lockdown has resulted in a 30% fall in the country's energy demand, according to Paris-based International Energy Agency (IEA). In what is being described as a result of the biggest shock since the Second World War, global energy demand is set to plunge this year. Energy consumption, especially electricity and refinery products, is typically linked to overall demand in an economy. "India's full national lockdown has reduced energy demand by almost 30%, meaning that with each additional week of lockdown, annual energy demand is reduced by 0.6%. Overall we estimate that an additional month of the restrictions in place as of early April would reduce global annual energy demand by around 1.5%," said IEA in its report on the pandemic's extraordinary impact across the energy spectrum. India's transportation fuel demand has come down with citizens cooped up indoors, though there has been an increase in demand for domestic cooking gas. This has resulted in refinery units operating at around half their capacity. With its industries shut, India's electricity demand has also taken a hit.

Energy Infra Post - 01.05.2020

[F2020%2F05%2F01&entity=Ar01109&sk=CD6712AF&mode=text](https://www.energyinfrapost.com/lockdown-cuts-indias-energy-demand-by-30-says-iea/)

Sale of fuel dropped 10% more than normal due to COVID-19:CIPD

The Consortium of Indian Petroleum Dealers have for the time written to the three major oil companies, seeking a stimulus financial package, saying it is very challenging to operate as fuel sales have dropped more than 10 per cent from normal due to the COVID-19 outbreak. CIPD President M Narayana Prasad said the Oil Marketing Companies HPCL, IOCL, BPCL had neglected to revise the dealer margins since August 2017 which subsequently led to retail outlet operations becoming 'exceptionally challenging'. CIPD had already written a similar letter to the OMCs on April 11. While salaries and operational costs for the quarter ending March 2020 amid the difficulties emerged due to the coronavirus outbreak, "the sales of motor spirit and high speed diesel have dipped no more than an average of 10 percent of normal sale," Prasad said. The financial challenges faced by retail outlets in absence of sales volume have rendered operations 'unviable' since dealer margins were based on volumetric litre sales, he said.

Business Insider - 28.04.2020

<https://www.businessinsider.in/business/news/sale-of-fuel-dropped-10-more-than-normal-due-to-covid-19cipd/articleshow/75432976.cms>

No, low crude oil price is not good for India. Govt is losing this much tax revenue per day

India's 40-day lockdown to contain the spread of the coronavirus is curbing oil demand and reducing the government's tax income from the petroleum industry, which contributes about a fifth of budget revenue. Consumption of fuel products probably declined at least 80% in April, which would lead to a revenue loss of as much as 400 billion rupees (\$5.3 billion), according to estimates from Madan Sabnavis, an economist at Care Ratings Ltd. That means the lockdown has cost the government about \$175 million a day in lost oil revenue this month. Demand in the world's third-biggest consumer of fuel plummeted this month as the government imposed a lockdown on 1.3 billion people, restricting their mobility and shutting down most businesses. At the same time, oil prices have collapsed, further reducing tax receipts from fuel products and crude production from local fields. "Low crude oil prices is a worry for the government as tax revenue will get

<https://www.energyinfrapost.com/lockdown-cuts-indias-energy-demand-by-30-says-iea/>

Low prices soothe India's oil and gas import bill in 2019-2020

Steep decline in global prices have helped India reduce its oil and gas import bill in 2019-2020, providing relief to the government at a time the Covid-19 pandemic has impacted economic activity. The decline in global commodity prices have helped the country increase imports of petroleum products and Liquefied Natural Gas (LNG) in 2019-2020 without inflating the import bill, data published by oil ministry's statistical arm PPAC and the commerce ministry showed. India's oil imports, including petroleum products, decreased 8.15 per cent to \$129 billion in 2019-2020, as compared to the year ago period. In volume, oil imports increased four per cent to 270 Million Tonne (MT). The country's import of LNG spiked 17 per cent to 33,680 Million Standard Cubic Meter (MMSCM) in 2019-2020. In value terms, however, imports declined 7.76 per cent to \$9.5 billion. Refinery shutdown initiated by state-owned refiners in 2019-2020 meant to supply Bharat Stage VI fuel country-wide led to a spike in petroleum product imports last financial year, data showed. Imports of petroleum products last financial year grew 29 per cent to 42.8 MT.

The Economic Times - 01.05.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/low-prices-soothe-indias-oil-and-gas-import-bill-in-2019-2020/75475866>

More state govts may soon announce hike in taxes on Petrol, Diesel

The recent decline in oil prices has given state governments an opportunity to hike duties on fuel to raise tax revenue sources amid increased expenditure and loss of tax income due to the nationwide lockdown to curb the spread of COVID-19. On Thursday, Haryana became the fourth state to hike duties on fuel. The state government decided to partially restore the VAT rate on the sale of diesel and petrol with an increase of Re 1.1 and Re 1 per litre, respectively. As per the proposed amendment, the rate of tax will be restored to 25 percent (effective rate 26.25 percent with surcharge) on petrol and 16.40 percent (effective rate 17.22 percent with surcharge) on diesel. Amid criticism, the Haryana government also hiked bus fare by 15 paise per km. For ordinary, luxury and super luxury buses in the state, fares have been hiked to Rs 1 per passenger per km from Rs 85 paise earlier, to partially meet the

affected," said Sabnavis. It will also make it difficult for authorities to sell oil refiner Bharat Petroleum Corp., as they had planned to do this year as part of an ambitious asset sale program, he said.

Energy Infra Post - 02.05.2020

<https://www.energyinfrapost.com/no-low-crude-oil-price-is-not-good-for-india-govt-is-losing-this-much-tax-revenue-per-day/>

Oil & gas Q4 earnings preview: OMCs set to log losses on inventory hit; RIL may take 10 per cent knock

Oil marketing companies (OMCs) BPCL, HPCL and IOC are all set to report huge losses for March quarter due to inventory losses in the wake of a collapse in crude oil prices. Refiners Reliance Industries and ONGC may log 8-10 per cent fall in profit for the quarter, that saw Singapore gross refining margin (GRM) tumble to a 72-quarter low on a \$44 a barrel fall in crude oil prices. Among the upstream firms, gas producer GAIL may report flat profit while Oil India is expected to report a 70 per cent drops in sales, said analysts. "The \$44 per barrel drop in oil price is estimated to have led to inventory loss of Rs 33,100 crore for OMCs. It would mean all three OMCs would be in the red despite strong auto fuel marketing margins. OMCs' Q4FY20 EPS would be up 9-98 per cent YoY, excluding the inventory loss impact," ICICI Securities said. BPCL is expected to log Rs 8,150 crore inventory losses, HPCL Rs 5,740 crore and IOC Rs 19,200 crore. Inventory losses may lead BPCL to report a net loss of Rs 6,410 crore, BPCL Rs 2,440 crore and Rs 1,840 crore, respectively, Nomura India said.

The Economic Times - 28.04.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/oil-gas-q4-earnings-preview-omcs-set-to-log-losses-on-inventory-hit-ril-may-take-10-per-cent-knock/75405512>

Get ready for hefty cut in fuel prices as lockdown curbs ease gradually

Get ready for a hefty cut in fuel prices as part of a larger government plan to put money in people's pocket, reduce inflation, freight and input costs for farmers as the country eases lockdown curbs with the aim of gradually re-starting economic activity. Sources familiar with the discussion in the government said the price cut could be as much as Rs 5-10 per litre when it comes within a "few days", but did not specify whether petrol or diesel will see the most reduction. Others said the reduction will be "balanced", or substantial but less than the amount quoted. The general opinion is that the time has come for the retailers to pass on the benefit of low crude and product prices. The

increased cost of operation of buses, an official statement said.

Energy Infra Post - 03.05.2020

<https://www.energyinfrapost.com/more-state-govts-may-soon-announce-hike-in-taxes-on-petrol-diesel/>

OMCs' gross profit on retail fuel sales to rise 60% to Rs 20,000 crore in Q1FY21 on static rates

With retail prices of petrol and diesel remaining unchanged since March 16 despite falling crude prices, auto fuel margins of state-run oil marketing companies (OMC) nearly tripled to Rs 14.72 per litre in the same period, analysts noted. Even though fuel-sale volumes remained as low as the current levels (down 60% year-on-year) throughout the quarter, if such marketing margins are sustained, ICICI Securities estimated that gross profit (on retail fuel sales) of the OMCs in Q1FY21 would be around Rs 20,000 crore (Indian Oil: Rs 9,550 crore, Bharat Petroleum: Rs 5,480 crore and Hindustan Petroleum: Rs 4,980 crore). This is about 60% more than the corresponding period in FY20. Though price of the Indian basket of crude has fallen 42% since March 16 to \$17.66 per barrel, retail prices of petrol (Rs 69.59/litre in Delhi) and diesel (Rs 62.29/litre) have not moved, allowing OMCs to earn more from selling every litre of these fuels.

The Financial Express - 28.04.2020

<https://www.financialexpress.com/industry/omcs-gross-profit-on-retail-fuel-sales-to-rise-60-to-rs-20000-crore-in-q1fy21-on-static-rates/1941565/>

India set to take a Rs 40,000 crore blow on account of oil revenue loss

India's 40-day lockdown to contain the spread of the coronavirus is curbing oil demand and reducing the government's tax income from the petroleum industry, which contributes about a fifth of budget revenue. Consumption of fuel products probably declined at least 80 per cent in April, which would lead to a revenue loss of as much as Rs 40,000 crore (\$5.3 billion), according to estimates from Madan Sabnavis, an economist at Care Ratings Ltd. That means the lockdown has cost the government about \$175 million a day in lost oil revenue this month. Demand in the world's third-biggest consumer of fuel plummeted this month as the

argument is that a hefty price cut will boost consumer sentiment and industrial activity wherever they are allowed to resume. Besides, cheaper freight will help keep consumer prices calm and lower input cost of farmers when farm activities are expected to pick up. Technically, state-run oil companies are free to decide pump prices.

The Economic Times - 03.05.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/get-ready-for-hefty-cut-in-fuel-prices-as-lockdown-curbs-ease-gradually/75499591>

Oil prices will rise but that's good for India

Benchmark Brent crude is currently trading at around \$20.65 a barrel (0.1364 tonnes), Indian basket was \$17.66 last week. For a country like India, which imports 84 per cent of its oil needs — 213.22 mt of consumption and 34.2 mt of domestic production — this must be sweet music. But how long will this honeymoon last? First of all, it is not a honeymoon, says Narendra Taneja, a leading energy expert in India. He says that ultra-low prices of oil are not in India's interests, because there is a flip side to it. Apart from affecting government's revenues (as excise duties on oil are based on value), there are other implications, notes Taneja, a National Spokesperson for the BJP. If oil prices continue to be so low, about 20 countries in the world, many from the West Asian region, will slip into recession, he told BusinessLine, pointing out that there are 8 million Indians in West Asia, sending home remittances of \$50-60 billion every year. With several economies in the red, the global economy itself will take a hit, taking India down with it. India, Taneja notes, is also an exporter of petroleum products. Data from the Petroleum Planning and Analysis Cell says that in 2019-20, India exported petroleum products worth \$34 billion, though imports were much higher at \$112 billion, of which crude oil bill was \$95.5 billion.

The Hindu Business Line - 29.04.2020

<https://www.thehindubusinessline.com/markets/commodities/oil-prices-will-rise-but-thats-good-for-india/article31446293.ece>

India's storage tanks to be full in third week of May

Low oil prices are an opportunity for India to stock up on the commodity, and the pumps at Indian Strategic Petroleum Reserves Ltd.'s (ISPRL)

government imposed a lockdown on 1.3 billion people, restricting their mobility and shutting down most businesses. At the same time, oil prices have collapsed, further reducing tax receipts from fuel products and crude production from local fields. "Low crude oil prices is a worry for the government as tax revenue will get affected," said Sabnavis. It will also make it difficult for authorities to sell oil refiner Bharat Petroleum Corp., as they had planned to do this year as part of an ambitious asset sale program, he said.

The Economic Times - 01.05.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/india-set-to-take-a-rs-40000-crore-blow-on-account-of-oil-revenue-loss/75466494>

Oil prices set for deeper fall in 2020, even as lockdowns ease

Oil prices are headed for further falls this year even as countries ease restrictions related to the coronavirus crisis, while output cuts by top producers will do little to fix a supply glut, a Reuters poll showed on Thursday. The survey of 45 analysts forecast Brent crude would average \$35.84 a barrel in 2020, 7.5% below the \$38.76 consensus in a March survey. It has averaged \$45 so far this year. Brent and U.S. West Texas Intermediate crude both dived below \$20 this year. Brent, the global benchmark, was trading around \$25 on Thursday, more than 60% lower than at the end of 2019 as lockdowns have hammered demand for fuel. "It feels like high noon on oil markets. Storage close to capacity limits and rapidly filling creates a blistering tension filled with fear about an overflowing market," said Norbert Ruecker, head of economics at Swiss bank Julius Baer. U.S. WTI crude, which slipped below zero for the first time ever this month as traders scrambled to sell the May contract ahead of its expiry, was forecast to average \$31.47 a barrel in 2020 in the latest poll, down from \$35.29 in March.

The Economic Times - 01.05.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/oil-prices-set-for-deeper-fall-in-2020-even-as-lockdowns-ease/75471694>

Oil-hungry Asian nations pounce on low prices to build stockpiles

Some oil-hungry Asian nations are taking advantage of the collapse in prices caused by the coronavirus pandemic to build up their

underground storage caverns are busy. The public sector company's MD and CEO HPS Ahuja told BusinessLine on Saturday that the country's storage caverns, in Visakhapatnam, Mangaluru and Padur (Karnataka), which together can hold 5.33 million tonnes (mt) of crude, will be full roughly by the third week of May. This represents nine days' normal times consumption. Ahuja had said on April 7 that the caverns, as on that date, held crude to 56 per cent of their capacity. With some more oil put in, the stocks have gone up. However, on the basis of contracts for oil supply made, it would take till about the third week of May for the tanks to brim up. (The SPRs are gigantic, man-made, underground caverns that are permanently sealed. Crude oil is put in and taken out through pipes. From floor to roof, they are as high as a 10-storey building and as wide as 12 Mercedes Benz cars. The crude is kept under 'hydraulic confinement' — water, carefully let into the rocks around the tunnel at high pressure, prevents the crude from seeping out.

The Economic Times - 28.04.2020

<https://www.energyinfrapost.com/indias-storage-tanks-to-be-full-in-third-week-of-may/>

HOEC finds oil in Mumbai offshore, raises production target by 60 per cent

Hindustan Oil Exploration Company (HOEC) on Wednesday said it has found oil reserves in a well it drilled in a block 150-km off the Mumbai coast, boosting output prospects from the acreage by 60 per cent to 8,000 barrels of oil and oil equivalent gas per day. HOEC had previously found oil in the very first well it drilled on B-80 block which it had won in a Discovered Small Fields (DSF) bid round. "We are delighted to report that in D-1 well, production test was carried out over a period of 3 days. D-1 produced significantly more oil during the flow test, compared to first well D-2 test results announced by us on February 24, 2020," the firm said in a statement. In a telephonic interview with , its CEO P Elango said the company was earlier expecting an output of 5,000 barrels of oil and oil equivalent gas per day which has after the second well been upgraded to 8,000 boepd. The output includes 5,000 barrels of oil per day and 20 million cubic feet per day of natural gas. "We have reduced operating cost to help breakeven even during the current low oil price scenario," he said adding operating cost which was about USD 50,000 per day has been cut by 20 per cent.

The Economic Times - 30.04.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/hoec-finds-oil-in-mumbai-offshore-raises-production-target-by-60-per-cent/75450286>

crude stockpiles. Here are some questions and answers about strategic reserves and the region's oil supplies: - What are strategic oil reserves and why do countries need them? - Strategic reserves are stockpiles of oil and other fuels held by governments in secure storage facilities to cover unexpected disruptions to energy supplies. Major economies such as the US, China and Russia began to build up reserves after oil shocks in the 1970s, according to Ravi Krishnaswamy, regional senior vice president for energy and environment at consultancy Frost & Sullivan. The events that spurred them to take action were principally the 1973 Yom Kippur War between Israel and the Arab nations, and the 1979 Iranian revolution, which fuelled worries about supplies. How big are the strategic reserves across the region? - China is believed to have the biggest in the Asia-Pacific. Beijing does not give an official estimate but analysts say it is at around 550 million barrels. In comparison, the United States' strategic reserves currently hold around 630 million.

The Economic Times - 04.05.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/oil-hungry-asian-nations-pounce-on-low-prices-to-build-stockpiles/75514588>

In a first, India to launch natural gas trading on electronic platform next month

Indian Gas Exchange (IGX), a wholly-owned subsidiary of Indian Energy Exchange (IEX), hopes to launch natural gas trading on its platform beginning next month if the on-ground situation improves. Rajesh Mediratta, Director at IGX speaking at a virtual conference organised by industry body PHD Chamber of Commerce said that the company hoped to launch the platform in March itself, however, lockdown measures in-place to deal with the Covid-19 pandemic led to delay. IGX would be India's first online gas trading platform for physical delivery of natural gas. Initially, the company has identified Dahej, Hazira and Kakinada as delivery points and will subsequently include Dhabol, Kochi, Ennore and Mundra terminals. According to Mediratta, all trades which will take place on the platform will be for physical delivery and non-transferable. Trading of natural gas will take place in rupee and the minimum lot size would be 100 Million British Thermal Units (MMBTU).

The Economic Times - 29.04.2020

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/in-a-first-india-to-launch-natural-gas-trading-on-electronic-platform-next-month/75432488>

Cairn supporting India's energy security along with stringent measures to combat COVID-19

Cairn Oil & Gas said on Monday it continues to produce oil and gas for the country's energy security needs despite the twin challenges of global oil prices tanking along with COVID-19 pandemic and ensuing lockdown. India's largest private oil and gas exploration and production company has maintained production at 160 thousand barrels of oil equivalent per day (KBOEPD), marginally down from 180 KBOEPD it was producing before the pandemic in the face of reduced offtake from customers owing to falling demand. The company has contributed Rs 5 crore to the Rajasthan Chief Minister's COVID-19 Mitigation Fund in addition to Rs 5 crore contributed by Vedanta's Udaipur-based Hindustan Zinc. Both the Rajasthan-based Vedanta companies have undertaken extensive and expansive measures to ramp up community outreach spends already worth Rs 8 crore. In its operations of 20 years, Cairn has opened four frontier basins with numerous discoveries, 38 in Rajasthan alone.

Energy Infra Post - 28.04.2020

<https://www.energyinfrapost.com/cairn-supporting-indias-energy-security-along-with-stringent-measures-to-combat-covid-19/>

Commercial passenger flights to remain suspended till May 17 midnight: DGCA

A day after the Modi government announced extension of the coronavirus-induced lockdown till May 17, the DGCA on Saturday said all commercial passenger flights will remain suspended till midnight of May 17. "It is reiterated that foreign and domestic airlines shall be suitably informed about the opening of their operations whether international to/from India or domestic, respectively, in due course," a circular of the Directorate General of Civil Aviation (DGCA) stated. India has been under lockdown since March 25 to curb the spread of coronavirus. All commercial passenger flights have been suspended for this period. However, cargo flights, medical evacuation flights and special flights permitted by the DGCA are allowed to operate. Coronavirus has infected over 37,000 people and killed more than 1,200 people in India till now. The first phase of lockdown in India was from March 25 to April 14. The second phase started on April 15 and would end on May 3. The third phase would be from May 4 to 17.

The Economic Times - 03.05.2020

Domestic air passenger traffic fell by 33% in March: DGCA

Amid the coronavirus pandemic, domestic air passenger traffic in March fell by 33.06 per cent to 77.62 lakh as compared to the same month last year, the aviation regulator DGCA said on Thursday. India has been under a lockdown since March 25 to curb the spread of the novel coronavirus. All commercial passenger flights have been suspended for the lockdown period. According to the Directorate General of Civil Aviation (DGCA) data, passenger load factors of all airlines in India decreased significantly in March as compared to February. Passenger load factor measures the seat capacity utilisation of the airline. "The passenger load factor in the month of March 2020 has shown a sharp decline due to suspension of air operations because of COVID-19 outbreak," the DGCA explained. At 83.7 per cent, SpiceJet saw the highest passenger load factor in March. At number two, GoAir had 78.9 per cent load factor. In February this year, the rise in the number of domestic air passengers was 8.9 per cent to 1.23 crore when compared with the figures of the corresponding month in 2019.

The Economic Times - 01.05.2020

<https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/domestic-air-passenger-traffic-fell-by-33-in-march-dgca/articleshow/75475233.cms?from=mdr>

Enough time will be given for re-starting flights: DGCA

While extending the suspension of domestic and international passenger flight services from May 3 to 17, barring cargo operations, the Civil Aviation regulator on Saturday said that sufficient time will be given to airlines for re-starting operations. The decision comes a day after the Centre extended the nationwide lockdown with fewer restrictions than the earlier ones. The civil aviation regulator, Directorate General of Civil Aviation (DGCA) said that sufficient notice and time will be given to airlines for restarting operations. "However, it is reiterated that foreign and domestic airlines shall be suitably informed about the opening of their operations whether international to or from India or domestic respectively in due course," the DGCA said in a circular. The Centre had earlier asked all airlines to refrain from booking tickets till a final decision on flight services is taken. The DGCA had earlier stopped operations of passenger flights on all domestic and international routes since March 25. At present, thousands of jobs in the aviation sector

<https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/commercial-passenger-flights-to-remain-suspended-till-may-17-midnight-dgca/articleshow/75506595.cms>

Crude steel output in March slumps to 7.38 MT due to COVID-19: Ministry

India's crude steel production fell 23 per cent to 7.38 million tonne (MT) in March as compared to the previous month, while export and import also took a beating due to the COVID-19 pandemic and the subsequent lockdown, according to an official statement. The spread of coronavirus also impacted the country's consumption of steel which fell 6.6 per cent month-on-month to 0.580 MT in March, the steel ministry said in an update on the sector. "While the month of March 2020 witnessed the onset of COVID-19 and the lockdown in the latter half, overall it witnessed a bleak situation for steel sector as a whole. The crude steel production at 7.38 MT observed a huge decline of 22.7 per cent in March 2020 as against 9.56 MT during February 2020, while export-import fell drastically and even consumption reduced by 6.6 per cent," it said. The finished steel export declined 20.5 per cent to 0.453 MT from 0.570 MT in February. Import fell 26.9 per cent to 0.293 MT from 0.401 MT in the previous month, it said. In 2019-20, crude steel output also registered a fall at 108.500 MT, down 2.2 per cent from 110.921 MT in 2018-19.

Business Standard - 29.04.2020

https://www.business-standard.com/article/pti-stories/crude-steel-output-in-march-slumps-to-7-38-mt-due-to-covid-19-ministry-120042800826_1.html

Former finance secretary Rajiv Kumar appointed PESB chairman

Former Finance Secretary Rajiv Kumar was on Wednesday appointed Chairman of Public Enterprises Selection Board (PESB) for a period of three years. Kumar, 60 and a 1984 batch Jharkhand cadre IAS official, was in July 2019 designated as the Finance Secretary and retired in February this year. He will succeed the incumbent Kapil Dev Tripathi, a 1980 batch retired Assam-Meghalaya cadre IAS official. The Appointments Committee of Cabinet (ACC) headed by Prime Minister Narendra Modi approved the appointment of Kumar as Chairman PESB for a period of three years from the date of assumption of charge of the post or until further orders, whichever is earlier,

is at risk as the government has again extended the lockdown without giving any fiscal relief to the industry.

Outlook India - 03.05.2020

<https://www.outlookindia.com/newscroll/enough-time-will-be-given-for-restarting-flights-dgca/1821660>

FICCI seeks infrastructure status for lockdown-hit steel sector

Industry body Ficci has suggested various measures like infrastructure status to the steel industry, zero duty on critical raw materials, and another three-month moratorium to revive the sector, which has been impacted by the lockdown. COVID-19 pandemic and subsequent nationwide lockdown have affected the demand and production of steel, as well as resulted in the rise of inventory levels, it said, adding the policy interventions would help the industry to revive and help generate employment opportunities. In its suggestions to the government, Ficci said: "It...recommends for an extension of additional three months moratorium granted on payment of interest and repayment of loans without any penal interest and interest free financing/at nominal rates for MSMEs in the sector to revive". Granting infrastructure status to the steel industry, it said, will give access to finance at competitive rates from various markets and sources. Besides, the entire supply chain of the sector should be incorporated into essential services, and be allowed to operate with precautionary measures as per the guidelines of the government.

The Economic Times - 04.05.2020

<https://economictimes.indiatimes.com/industry/indl-goods/svs/steel/ficci-seeks-infrastructure-status-for-lockdown-hit-steel-sector/articleshow/75517589.cms>

Ramesh Babu V takes charge as Director (Operations), NTPC

Ramesh Babu V assumes his new role as Director (Operations), NTPC Ltd w.e.f 01.05.2020. Shri Babu graduated as a Mechanical Engineer from NIT Srinagar and completed his Masters in Thermal Engineering from IIT Delhi. He joined NTPC as Executive Trainee (12th batch) in 1987 and has more than 32 years' experience in managing large Power Stations in the areas of operations & maintenance, renovation & modernisation of old units as well as in the domains of efficiency & systems improvement of thermal plants. Shri Babu as a Professional Manager and Strategic Planner has led several initiatives for improving

said a Ministry of Personnel order. Kumar was transferred to the power ministry in a major bureaucratic reshuffle on July 24 last year. A lover of Indian classical music and an avid trekker, Kumar has over three decades of experience in public policy and administration across various sectors. He has BSc and LLB degrees, along with a masters in public policy and sustainability. He took over as the financial services secretary in September 2017 and initiated several reforms in the country's banking sector, to clean up the bad loan mess and to make public sector banks (PSBs) stronger.

Business Standard - 30.04.2020

https://www.business-standard.com/article/current-affairs/former-finance-secretary-rajiv-kumar-appointed-pesb-chairman-120042900947_1.html

Govt clears Shrikant Madhav Vaidya as next IOC chairman

Shrikant Madhav Vaidya will steer India's largest state-run oil refiner and fuel retailer IndianOil as the oil industry grapples with an unprecedented market volatility and demand crash due to the coronavirus pandemic. The Cabinet's appointments panel on Tuesday cleared Vaidya, 56, currently director (refineries) in the company, as the next chairman. He will succeed Sanjiv Singh, who demits office on June 30, sources said.

The Times of India - 29.04.2020

<https://timesofindia.indiatimes.com/business/india-business/govt-clears-shrikant-madhav-vaidya-as-next-ioc-chairman/articleshow/75434189.cms>

Dr. Anindya Sinha assumes charge of director of NCL

The Appointments Committee of the Cabinet (ACC) has approved the appointment of Dr Anindya Sinha as Director (Technical) of Northern Coalfields Limited (NCL) on Tuesday. According to an order issued on April 28, Sinha has been appointed on the post for a period with effect from the date of his assumption of charge of the post

reliability and efficiency of Power Stations. His experience in power sector includes Senior Management level exposure as a "Business Unit Head" of NTPC Talcher Kaniha & NSPCL Durgapur. As Director (Operations), NTPC, Shri Ramesh Babu will be responsible for the overall planning of safe, reliable and efficient operations of all power generating stations of the NTPC Group while ensuring fuel security and environmental compliance of these power stations.

The Pioneer - 03.05.2020

<https://www.dailypioneer.com/2020/business/ramesh-babu-v-takes-charge-as-director--operations---ntpc.html>

Eminent Banker Suresh N Patel Takes Oath As Vigilance Commissioner

Eminent banker Suresh N Patel on Wednesday took oath as the Vigilance Commissioner in the anti-corruption watchdog CVC, officials said. Mr Patel, who is in Ahmedabad, was administered the oath of office by Central Vigilance Commissioner Sanjay Kothari through video conference, they said. Mr Patel's name to the post was recommended by a high-powered committee headed by Prime Minister Narendra Modi in February this year. He has over three decades of banking experience, and has also worked as the executive director in Oriental Bank of Commerce before taking over as the Managing Director and CEO of Andhra Bank in 2015. He had been member of the management committee of Indian Banks' Association, member of Bankers' Institute of Rural Development at NABARD, president, state level Bankers' Committee in Andhra Pradesh and also the president of the Bankers' Institute of Rural and Entrepreneurship Development, according to a statement issued by the Personnel Ministry.

NDTV - 29.04.2020

<https://www.ndtv.com/india-news/eminent-banker-suresh-n-patel-takes-oath-as-vigilance-commissioner-2220478>

Sanjay Kumar Jha assumes charge as CMD, Midhani

Sanjay Kumar Jha, Director (Production & Marketing) of Mishra Dhatu Nigam Ltd (MIDHANI), on Friday assumed charge as its Chairman & Managing Director in Hyderabad. Jha served in Department of Atomic Energy (DAE) for more than 27 years. In the field of Atomic Energy, he has been credited with

till the date of his superannuation i.e. June 30, 2023, or until further orders, whichever is earlier. Currently, he is serving as Project Advisor in the Ministry of Coal. Earlier, PSU Watch had reported that Sinha was recommended for the post of Director (Technical) of NCL by a PESB panel on December 27, 2019. Currently, there are two posts of Director (Technical) in NCL. Another post has been acquired by Subrata Shekhar Sinha said an order issued on the same day.

PSU Watch - 29.04.2020

<https://psuwatch.com/dr-anindya-sinha-is-new-director-technical-of-ncl>

several technological innovations like processing of nuclear materials of different grades such as "difficult to hot work" Alloy. He has carried out Simulation and modelling of two dissimilar metals used for development of fusion technology. Jha has also developed Titanium half alloy and full alloy tube in different sizes for Light Combat Aircraft and PSLV applications. He has invented a process to develop unique properties in pressure tube; a life time component for nuclear power reactors. Jha received recognition for his work at NFC from Department of Atomic Energy.

The Hindu Business Line - 01.05.2020

<https://www.thehindubusinessline.com/companies/sanjay-kumar-jha-assumes-charge-as-cmd-midhani/article31482606.ece>