

# POWER MARKET CAPSULE-171st Edition

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# **TPTCL'S E-NEWS LETTER**



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## **Tata Power Trading Company Limited (TPTCL)**







#### **Power Market News**

### Average spot power price jumps 65% to Rs 4.06/unit in March at IEX

Average spot power price rose by 65 per cent to Rs 4.06 per unit in March compared to the year-ago month at Indian Energy Exchange (IEX) mainly due to increase in demand on account of rise in temperature and revival of economic activities. "The day-ahead market (DAM) traded 6,549 MU (million units) volume recording a significant 65 per cent YoY (year on year) growth. The average monthly price at Rs 4.06 per unit during the month saw a 20 per cent MoM (month on month) increase," an IEX statement said.

According to IEX data, average spot power price in DAM was Rs 2.46 per unit in March 2020 and Rs 3.39 per cent in February 2021. The IEX explained that the increase in price was mainly due to the increase in demand for electricity during the month due to sharp rise in temperature, revival of economic and commercial activities. During 2020-21, the DAM on the IEX, traded 60,416 MU and registered 23 per cent YoY (year on year) growth.

The day-ahead market saw ample availability of power during the year with sell-bids at 1.94X of the cleared volume. Even though the power consumption over the last six months revived significantly accompanied by the growth in the industrial and economic activities across the country, the average yearly price for DAM at Rs 2.82 per during the fiscal saw 6.2 per cent YoY decline. The electricity market at IEX achieved an all-time high volume of 8,248.52 MU in the month of March 2021 surpassing all the previous milestones. The robust volumes led to a 92 per cent YoY growth in electricity market during the month, it added.

The market faced transmission congestion on the inter-state transmission network due to which 24MU was lost during the month, representing 0.03 per cent of total traded volume. Cumulatively for the fiscal year 2021, the IEX market performed spectacularly well despite the CoVID-19 induced lock-down which resulted in the significant reduction in the demand for electricity in the country in the first two quarters of the year.

The electricity market achieved all-time high volume of 73,941 MU during the year leading to 37.2 per cent YoY growth. The new market segments introduced during fiscal year 2021 the real time market (RTM) as well as the green market, made 14 per cent contribution to the volume traded during the year. As per the NLDC (national load dispatch centre) data for fiscal year 2021, national peak demand for electricity at 190 GW saw 3.5 per cent growth while electricity consumption at 1,281 BU (billion units) was down 0.6 per cent YoY.

The term-ahead market (TAM) comprising intra-day, contingency, daily & weekly contracts traded 234 MU during the month of March. Cumulatively, for the fiscal year 2021, the TAM traded a total of 3,272 MU. The real-time market (RTM) continued its splendid performance during March'21 and crossed 1BU benchmark for the fourth consecutive month.

The RTM saw the highest ever monthly volume of 1,414 MU with 26 per cent MoM growth. It also recorded the highest single-day volume of 63 MU on 23 March, 2021. With sell-side bids at 1.8X of cleared volume, the market continued to have ample availability of power. The market has emerged as the preferred option for the distribution utilities and industrial consumers to address real-time electricity demand supply balance in the most competitive and efficient manner with the delivery of power at just 1-hour notice, it added.



This is also evident from the fact that the market saw participation from over 400 market participants during the month. The real-time market has cumulatively traded 9,468 MU since its commencement on 1st June, 2020. The Green Term Ahead Market (GRAM) traded a volume of 51 MU during the month of March comprising 21 MU in the solar segment and 30 MU in the non-solar segment.

A total of 24 participants participated during the month with distribution utilities from Haryana, Bihar, Uttar Pradesh, West Bengal, New Delhi, Karnataka, Telangana, and Maharashtra among others as the key participants. The GTAM has been enabling distribution utilities, industrial consumers, and green generators to buy and sell green power while also supporting them in fulfilling their Renewable Purchase Obligation (RPO) targets in the most competitive way. The market has cumulatively traded 786 MU volume since its launch on 21 August, 2020.

The REC (renewable energy certificate) trading session which was scheduled on 31 March'21 did not take place due to the stay order from the APTEL (Appellate Tribunal For Electricity) in response to the petitions filed by a few Renewable Energy Associations against the CERC (Central Electricity Regulatory Commission) order issued in June, 2020 regarding revision in the floor and forbearance prices of REC. During fiscal year 2021, the REC market cumulatively traded a 6.97 lakh certificates. *Source* 

## Tata Power DDL introduces Narrow-Band IoT technology in smart meters

Tata Power Delhi Distribution Ltd (TPDDL) today announced it has introduced Narrow Band-Internet of Things (NB-IoT) technology in its smart meters. The private power distributor has so far installed 230,000 smart meters on the Radio Frequency (RF) technology. The company said the "first-of-its-kind" technology integration has been done involving meter manufacturers and NB-IoT service of Reliance-Jio Network. "NB-IoT is a new and cost-effective technology in 4G and 5G spectrum with fast deployment quality. With this technology, the interference and obstruction arising due to public network congestion will not hamper the performance of smart meter anymore as data will smoothly flow through a dedicated channel," the company said in a statement.

The new technology is also expected to enable a greater number of remote meter readings, thereby ensuring the safety of consumers during pandemic times. "This unique technology integration will not only strengthen our credentials as a Utility of the Future but also take the Indian Smart Metering Mission to the next level," said Ganesh Srinivasan, Chief Executive Officer, TPDDL. The firm said it has achieved interoperability at Meter Data Management level whereby meters from multiple makes and different technologies are collected, worked upon and analysed at the same platform. Source

#### Rs 75,000 cr disbursement to discoms under special liquidity scheme

State-owned power distribution companies (discoms) have received Rs 75,000 crore between June 2020 and March 2021 under the special liquidity scheme announced by the central government last year. Under the scheme, which is now closed, government-owned lenders Power Finance Corporation (PFC) and Rural Electrification Corporation (REC) extended special one-time loans to discoms to clear their dues to the power generating companies.

The size of the loan scheme was Rs 90,000 crore, to be divided equally between PFC and REC. The firms, on the other hand, sanctioned Rs 1.3 trillion of loans. PFC and REC have cumulatively disbursed Rs 29,500 crore (Rs 14,900 crore by PFC and Rs 14,600 crore by REC) in the past two months. ICICI Securities in a note said the additional loans take total disbursal in FY21 to Rs 75,560 crore. Further, loan sanctions have now reached Rs 1.35 trillion, an increase of Rs 10,500 crore during the same period under UDAY limit relaxation, it said.



In June 2020, the Finance Minister announced an Atmanirbhar Bharat package to boost the economy. Under this, a special liquidity infusion scheme was announced for the ailing power distribution sector. The major beneficiaries of the scheme were Uttar Pradesh, Rajasthan and Andhra Pradesh. Additional disbursals have been mainly to UP, Telangana, TN and Bihar. This has resulted in clearing of dues of CPSU gencos, transcos and Coal India. "Given that many discoms are comfortable with the conditions laid out to avail tranche-II loans, disbursals are expected in Q1FY22 onwards. NTPC, Coal India and NHPC remain our top picks in PSU space in the sector," ICICI Securities said. Source

#### Bihar govt unveils Rs 6,043-crore annual power subsidy

PATNA: The state energy department on Tuesday announced an annual power subsidy of Rs 6,043 crore under Mukhyamantri Vidyut Upbhokta Sahayata Yojna. Power tariff orders for fiscal 2021-22 were earlier passed by Bihar Electricity Regulatory Commission (BERC) on zero-subsidy basis on March 26. The BERC had allowed an average 'marginal' hike of 0.63% in electricity charges for power consumers of different categories and further subsidy was to be announced by the state energy department.

Of the Rs 6,043-crore subsidy that the energy department announced on Tuesday, Rs 3,459 crore is to be paid as annual subsidy to over 99.84 lakh domestic consumers in rural and urban areas of the state. For 58.78 lakh cottage industry units in the state, an annual subsidy of Rs 1,488 crore has been announced. The subsidy for power consumers in non-domestic category in urban and rural areas has been fixed at Rs 309 crore.

Similarly, the subsidy to be paid to the consumers in the agriculture sector for irrigation purposes with over 3.59 connections with and without meter is to the tune of Rs 494 crore. Another chunk of Rs 227-crore subsidy will be provided to the 12,696 designated consumers who use electricity for irrigation purposes of the second type.

Further, Rs 40-crore subsidy will be paid for 42,398 power connections under the Har Ghar Nal Yojana. In the domestic category, Rs 1,669 crore subsidy will be paid to consumers who use electricity up to 101 units in rural areas and Rs 636 crore to the consumers in the rural areas who use more than 101 units. Similarly, over 27.05 lakh domestic consumers in the urban areas will be paid an annual subsidy of Rs 1,154 crore. *Source* 

### Pandemic causes India's first drop in annual power demand in 15 years

India's annual electricity demand contracted for the first time in at least 15 years, as one of the world's strictest lockdowns slashed power consumption during the early months of the year ended March. Demand from state distribution utilities dropped 1.1%, marking the first such decline in records going back to 2006, data from the Central Electricity Authority show. Peak demand during the year rose to 190.2 gigawatts, about half of the country's installed capacity, from almost 184 gigawatts in the prior year. Consumption fell as businesses, offices and factories were shuttered after a nationwide lockdown was imposed in March last year. Still, power demand has rebounded as India became one of the few major economies to post growth in the last quarter of 2020, helped by a boost in government spending and the reopening of the economy. Strong demand is key for India to draw investors to its power industry as it seeks fresh capital for its clean-energy transition.

"We are seeing a strong recovery in electricity demand driven by industries and that trend should continue," said Rupesh Sankhe, vice president at Elara Capital India Pvt. in Mumbai. "The fresh surge in virus cases might pose some temporary risks, but the longer-term demand story is intact." Electricity requirement grew in the last seven months of the fiscal year, with total requirement during the period



rising 7% from a year earlier, according to the CEA. Sankhe expects electricity requirement to rise at least 10% in the year that began in April, helped by a low base. *Source* 

### Govt to frame new electricity policy

The Power Ministry has set up an expert panel to prepare the Draft National Electricity Policy 2021. The Central government, from time to time, in consultation with states, reviews and revises the National Electricity Policy and Tariff Policy under the Electricity Act, 2003. The government had notified the National Electricity Policy in February 2005. The Working Group on Power for the 12th Plan had made recommendation for amendment in National Electricity Policy in addition to Electricity Act 2003 and Tariff Policy.

The panel will prepare the National Electricity Policy 2021 and will be headed by Gireesh Pradhan, former Chairman, CERC. Other members include Rakesh Nath, former Chairman, CEA and ex-member, APTEL, CEA Chairman and representatives of MNRE, states of West Bengal, Uttar Pradesh, Andhra Pradesh, Assam and Gujarat, Niti Aayog, heads of NTPC, NHPC, POSOCO, PGCIL and SECI. The Joint Secretary, Power Ministry will be the convener. The panel may call invitees from industry including IPP, FICCI, CII, Wind Association, Solar Association for the meetings. <u>Source</u>

# NHPC to form joint venture with JKSPDCL to set up 850-MW Ratle hydropower project in J&K

State-owned hydropower giant NHPC will form a joint venture with JKSPDCL, "Ratle Hydroelectric Power Corporation Ltd", to implement a 850-megawatt (MW) hydroelectric project in Chenab river basin. "A promoter's agreement has been signed on April 13, 2021, between NHPC Ltd, Jammu & Kashmir State Power Development Corporation Ltd (JKSPDCL) and the Government of Union Territory of Jammu and Kashmir," according to a BSE filing.

Under the pact, the parties have decided and agreed to jointly establish a company under the name of "Ratle Hydroelectric Power Corporation Limited" for the implementation of Ratle hydroelectric project. It will have an installed capacity of 850 MW in the Chenab river basin and any other project that may be entrusted to the company in the Union Territory of Jammu & Kashmir. The joint venture (JV) shall be formed in the shareholding ratio of 51 per cent (NHPC Ltd) and 49 per cent (JKSPDCL). According the pact, the company shall have an authorised share capital of Rs 1,600 crore divided into 160 crore equity shares of the face value of Rs 10.

The initial paid-up share capital shall be Rs 100 crore divided into 10 crore equity shares of the face value of Rs 10 each, which shall be subscribed by the promoters as early as possible but not later than 90 days from the date of incorporation of the company. "The chief executive officer (CEO) shall be responsible for day-to-day management of the JV. The post of CEO shall be below board level and shall be the nominee of NHPC," it added. Initially, the board shall comprise seven directors. JKSPDCL nominated three part-time directors, including chairman, and NHPC nominated four part-time directors on the board of company. JKSPDC is also a party to another JV of NHPC — Chenab Valley Power Projects Private Ltd. <u>Source</u>

## Power Ministry and MNRE planning a data centre

The Ministries of Power and New & Renewable Energy are planning to jointly build a data centre, Secretary of New & Renewable Energy Indu Shekhar said on Monday. "We are working on a data centre,



in collaboration with the Ministry of Power. The project is at a conceptualisation stage," Shekhar said at the launch of the second edition of India Energy Dashboards by NITI Aayog.

Developed by Prayas Energy Group, the India Energy Dashboards platform will host all official energy data from across departments and ministries on one platform to aid investors and researchers, said Amitabh Kant, CEO of Niti Aayog. "The interaction of environmental concerns with energy will continue to shape the energy marketplace. Quality and robust energy data is essential for planning and strategizing the energy security of the nation," Mr. Kant said.

"The restoration of the financial health of discoms will generate a trove of data that we will share on this platform," said Power Secretary Alok Kumar. Apart from Power, the platform aims to integrate live data from the Ministries of Coal, Petroleum and Natural Gas, and New & Renewable Energy, among other sources. <u>Source</u>

#### Power ministry asks regulators to revise power tariffs by Apr 1 every year

In a communication to central and all state power regulatory bodies, the power ministry has sought compliance of legal provisions in the Electricity Act 2003 and the Tariff Policy 2016.

The Central government has asked regulatory commissions to issue tariff orders of all distribution licensees before April 1 of the tariff year and report compliance to the Union power ministry by May 31 every year. In a communication to chairpersons of central and all state power regulatory bodies, the power ministry has sought compliance of legal provisions in the Electricity Act 2003 and the Tariff Policy 2016, which mandate timely determination of the adequate power tariffs by the electricity commissions. "It has been brought to the notice of the government that despite above explicit legal provisions, there are significant delays in issuance of tariff orders by some of the state commissions. Regulatory assets are being created by some of the state electricity regulatory commissions as a matter of routine. This is against the letter and spirit of the law and not only negatively impacts financials of the distribution licensees and their business sustainability but is also prejudicial to the public interest as the discoms do not have enough money to buy power or maintain the distribution system," the letter said.

Discom overdue outstanding to generation companies are at Rs 1,24,437 crore, despite the Centre's liquidity infusion scheme under which Rs 75,000 crore have been disbursed to states. Discom outstanding loans are nearly Rs 6,00,000 crore. The average revenue gap of distribution utilities is in the range of 72 paise per unit and the regulatory assets are at Rs 78,000 crore.

Section 64 of the Electricity Act 2003 provides for determination of cost reflective tariff by appropriate commission within 120 days from receipt of tariff petition. Similarly, Tariff Policy 2016 states that the commissions should initiate tariff determination on a suo-moto basis in case the tariff petitions are not filed in time. It mandates commissions to ensure the tariff changes are brought into effect from the beginning of each financial year and under business as usual no regulatory assets --- deferred tariff hikes -- are created. The same has also been provided in an order of the Appellate Tribunal for Electricity passed in November 2011.

Besides, the liquidity infusion scheme of total Rs 1,30,000 crore special loans to distribution companies, the centre is soon likely to bring out a Rs 3 lakh crore reforms-linked distribution reforms scheme which will disburse amount only when the discoms achieve set milestones. The government is also working on amendments in the Electricity Act, 2003 for delicencing power distribution segment to introduce competition. <u>Source</u>



## New norms for thermal plants may dent India's emission targets: Experts

A new analysis by researchers shows that the new thermal power plant norms issued by the Union environment ministry last month, which allowed them flexibility in meeting certain criteria, could compromise India's emission reduction goals that are part of efforts to tackle the climate crisis. The new rules, which came into effect on March 31, give an extension of 1 to 3 years to all thermal power plants to comply with emission norms that are mandated by the government.

What makes it worse is that the penalty charged to companies for not complying with the extended deadline is even lower than the cost of complying with rules that are meant to reduce emissions, an analysis by the Centre for Science and Environment has found. This means that thermal power plants can continue to pollute by paying a lower price for not installing pollution control devices.

CSE's analysis released on Thursday shows that while installing the equipment for pollution control will cost between ₹40-100 lakh/MW, the penalty that a 500 MW thermal power plant will have to pay to keep running without installing the equipment is only ₹5-11 lakh/MW as per the new amendment. Similarly, the maximum penalty imposed on non-compliant thermal plants is 20 paise per unit of electricity. But the cost of retrofit of pollution control equipment to meet the new norms for these plants is estimated to be between 30 and 70 paise per unit of power generated.

"The amended notification favours operation of old inefficient coal power stations, which can continue to run on paying a penalty – this can compromise India's climate change goals. What is worse is that the deterrence penalty charged to companies for not complying with the emission norms in the extended deadline is in fact a license to pollute," the CSE analysis said.

A senior environment ministry official, however, said the cost of penalties will have to be borne by power companies but the cost of installing emission control devices can be passed on to the consumers. "The power ministry has already made provisions where the cost of compliance to new emission norms can be passed on to the consumer in the form of tariff but the penalty for not complying cannot be passed on, so this will be loss to the power generator. There are a limited number of suppliers of pollution control devices... [and] Covid also has caused delays. So we have tried to harmonise the process through this notification," the senior environment ministry official said on condition of anonymity.

The environment ministry's notification dated March 31 replaces the Environment (protection) Rules, 1986, with the Environment (protection) Amendment Rules, 2021.

It states that thermal power plants located within 10km radius of the National Capital Region (NCR) or cities with million-plus populations have to meet the emission norms by December 31, 2022. Thermal power plants within 10km radius of critically polluted areas or non-attainment cities (cities that did not meet the annual national standard for particulate matter emissions from 2011 to 2015) will have to meet the standards by December 31, 2023, it states. Thermal power plants that are not in these two categories and are not scheduled for retirement will have to meet the norms by December 31, 2024.

The environment ministry had first notified superior emission standards for thermal power plants in December 2015 for implementation by the end of 2017. Later in 2017, this deadline was delayed to 2022 due to resistance from the industry. Last year, the Union power ministry approached the environment ministry requesting that the timeline to meet air quality norms be deferred on account of pandemic-linked economic slowdown and the inability to source flue gas desulphurization (FGD) systems, which help control sulphur dioxide (SO2) emissions. The environment ministry appears to have heeded to their



demand. "The cost of non-compliance as per the new notification is miniscule compared to the cost of compliance, so why will companies comply?" asked Sunita Narain, director general, CSE.

"Looking at the past track record of penalisation and stay (through courts) ensured by the non-complying power plants as well at the structure and formulation of current proposed penalty amount per unit of generation it is very evident that firstly it wouldn't even be enforced and secondly rather than ensuring compliance, it will support non-compliance by polluting power plants in a power surplus market, where cost of non-compliance is negligible compared to amount they are paid as fixed costs," said Sunil Dahiya, researcher at Centre for Research on Energy and Clean Air (CREA). Over 40% of India's greenhouse gas emissions come from its energy sector because of heavy dependence on coal, according to India's biennial report to the United Nations Framework Convention on Climate Change. <u>Source</u>

#### DVC registers record electricity generation of over 38 billion units in FY21

Damodar Valley Corporation (DVC) on Saturday said it has registered a record electricity generation of 38.41 billion units in the 2020-21 fiscal, overcoming the COVID-19 challenges. The power generation of the company grew by 3.26 per cent in the last financial year. The Plant Load Factor (PLF) for FY 21 stood at 62.39 per cent, which was higher than the national average of 53.37 per cent, it said.

PLF is a measure of the average capacity utilisation of a thermal power unit. The power utility said its PLF was 60.52 per cent in the 2019-20 fiscal. "The declared capacity of 91.14 per cent for the year is also a record for DVC," the company added. <u>Source</u>

# DISCOMs Need Distribution System Operators To Forecast Renewables and Manage Load

India is an attractive solar market with tremendous, long-term potential. The installation targets are aggressive; however, the investments in the sector have stymied due to counterparty credit risks from distribution companies. DISCOMs owed ₹123.27 billion (~\$1.68 billion) to renewable energy generators (excluding disputed amounts) in overdue payments across 227 pending invoices at the end of January 2021, according to the latest data.

The fourth session of the Mercom India Solar Summit 2021 focused on the power distribution companies (DISCOMs) and their key role in influencing policy. The session was moderated by Mercom India's Managing Director, Priya Sanjay. The panel included Manish Karna GM – Business Development, Energy, Adani Green Energy (AGEL); Anshuman Gupta, Manager, Indian Renewable Energy Development Agency (IREDA); and Manoj Kumar Agrawal Chief General Manager, Power System Operation Corporation (POSOCO).

#### Forecasting Issues

Priya Sanjay directed the first question to Manoj Kumar Agrawal from POSOCO. "Power demand is critical for DISCOMs; however, solar developers find it difficult to forecast specific to certain sites as there are no weather monitoring stations in these areas to draw data. How does POSOCO plan to address the situation?"

According to Agrawal, the prime responsibility of forecasting lies with both the developers and DISCOMs. "The government has set an ambitious solar target, and to achieve the goal, we need several measures. We need flexibility in the conventional generation. We need to work on energy reserves as earlier we were facing generation shortage and now, we have a surplus. This is to sort out the variability and



intermittency of renewable power generation. It requires proper forecasting and scheduling. We have 11 REMCs (Renewable Energy Management Centres) where three forecast service providers besides an internal forecasting tool as well."

He added that several weather patterns are monitored whenever a solar park goes into development. "This information is available to the state and the developers, who can use their own forecasting tools or use ours. Currently, the deviation limit is 15% of the available capacity, and if the deviation falls within 15%, there would be no impact on the developer. If it exceeds, then the developer gets some compensation on deviation."

According to Manish Karna from Adani Green, no developer wants to deviate from the standards and regulations meant to establish robust grid connectivity while addressing all safety concerns.

"However, I have one issue with forecasting during transient weather conditions (monsoon). Forecasting depends on weather inputs, and unfortunately, the weather forecast does not fall under the 15% deviation limit. There are errors in weather reports and pro-rata data from nearest IMD stations, especially when it is set up in a remote rural area. These errors are difficult to manage for the developers, like us, who have a full-fledged forecasting and scheduling team. However, in transient weather, our team is not able to track and forecast."

Agrawal informed the panel that POSOCO had already signed an MoU (Memorandum of Understanding) with the IMD. The latter had already developed a portal for the power sector that can be accessed by any developer or DISCOM.

#### IREDA Short-Term Loans

Agrawal agreed that forecasts could never be accurate and there will be deviations, and the stipulated 15% deviation is much wider than the deviation laid out in the international solar sector. Priya Sanjay asked IREDA manager Anshuman Gupta whether he expects the DISCOMs to pay back their loans.

According to Gupta, IREDA finances renewable energy power generation projects and transmission projects, and manufacturing projects. "Recently, we financed projects that will raise 2-3 GW of manufacturing capacity. We also finance DISCOMs. Now repayment of loans depends on how an institution structures and securitizes its loans. Some of our loans have state government guarantees, while for other projects, we devise other mechanisms. So far, we have sanctioned 10% of our book size as short-term loans to DISCOMs, and we have not seen a single default so far. These loans are short-term (2-3 years), unlike the long-term financing done by REC and PFC as they cover CAPEX too."

#### Addressing DISCOMs Woes

According to Manish Karna, tariffs have multi-faceted dynamics, "When we ask DISCOMs to buy power tariffs, they will consider the demand of power in the next few years. The other facet is how much of that demand they are willing to allocate comes from renewables. When it comes to RPO (Renewable Purchase Obligation) compliance, we have already seen that it has been extremely poor. Around 70% of the DISCOMs compliance is less than 50%, Karnataka being the exception. There needs a to be a willingness to comply with RPO."

Karna added that the APPC (Average Power Purchase Cost) of DISCOMs is ₹4 (~\$0.053) while they are signing PPAs for less than ₹3 (~\$0.40).



He said, "DISCOMs need to push for RPOs, the pull factor remains the tariff which will continue for 25 years and its cheaper than conventional power sources. So, it makes business sense to procure power from renewable energy sources. The solarization of agricultural pumps is another factor that will bring in more demand for the DISCOMs. The production-linked incentive program will push more manufacturing in India, which will drive the demand further. Besides, after COVID-19, demand from the grids has increased to 189 GW. With the summer setting in, the load demand will shoot up."

He added that DISCOMs had enjoyed a long-time window when it comes to RPOs, and many regulatory bodies have waived cumulative RPO compliances instead of carrying them on.

Agrawal added, "At POSOCO, we have control of the national and state grids, and we are communicating with the state load dispatch centers (SLDCs). Despite Corona, we already hit the grid load of 189 GW, and it is expected to go up during summers to 210 GW. There is no distribution system operator for DISCOMs, the way we have SLDCs and RLDCs (Regional Load Dispatch Centres). Some private DISCOMs are working as system operators, too, as they are conducting forecasting activities also. Similarly, all DISCOMs should adopt proper load forecasting, data telemetry, and communication. Once a DISCOM has a complete visualization, they will be able to manage their load effectively."

Agrawal said that he was very optimistic, although it is very difficult to integrate 450 GW by 2030 and 175 by 2022, especially with battery storage innovations. Karna claimed that India would see a green grid by 2030. "However, I also feel that not many mergers and acquisitions are happening in the sector." Gupta, however, claimed that the market was consolidating, and in the next few years, the sector would attract huge investments. <u>Source</u>

#### Gas-based power producer OTPC gets green nod for third unit in Tripura

ONGC-Tripura Power Company (OTPC), a gas-based electricity generation entity in the northeastern region, has received environmental clearance from the Centre for setting up its third plant, an official said on Friday. The biggest gas-based power company in the region currently has two facilities with a total capacity of 726 MW at Palatana in Tripura's Gomati district. The third unit will have a power generation capacity of 363 MW, OTPC managing director SC Namboodiripad said. "We need 1.5 million standard cubic metres per day of gas and are in talks with ONGC for allocation and pricing of the resource. We are optimistic about the project and have received environmental clearance from the Centre," he said.

The power company, which has been catering to the northeastern states and neighbouring Bangladesh, has achieved a revenue of over Rs 150 crore in the 2020-21 fiscal, Namboodiripad said. ONGC along with Infrastructure Leasing and Financial Services Ltd (IL&FS) and the Tripura government had formed the special purpose vehicle by entering into a shareholders' agreement in 2008.

The Centre has allocated more than 58 per cent of power from the project to the northeastern states - Assam (240 MW), Tripura (196 MW), Meghalaya (79 MW), Manipur (42 MW), Nagaland (27 MW), Arunachal Pradesh and Mizoram (22 MW each), and 98 MW is allotted to OTPC for merchant sales, the official said. <u>Source</u>

#### Coal India fuel allocation under spot e-auction rises 36% in Apr-Feb 2020-21

New Delhi: State-owned CIL allocated 37.21 million tonnes of coal during the April-February period of FY20-21 under spot e-auction scheme, registering a year-on-year increase of 36.3 per cent. Coal India Ltd (CIL) had allocated 27.30 MT of coal in the April-February period of FY 2019-20, according to



government data. Fuel allocation by CIL under the scheme also increased to 4.41 MT in February, from over 3.31 MT in the corresponding month of 2019-20, it said.

Coal distribution through e-auction was introduced with a view to provide access to coal for such buyers who are not able to source the dry fuel through the available institutional mechanism, according to CIL website. The purpose of e-auction is to provide equal opportunity to all intending buyers for purchasing coal through single window service.

Coal India accounts for over 80 per cent of domestic coal output. The company is eyeing one billion tonnes of coal output by 2023-24. State-owned CIL will pump in over ₹1.22 lakh crore on projects related to coal evacuation, exploration and clean coal technologies by 2023-24, to achieve 1 billion tonnes of fuel output target, Coal Minister Pralhad Joshi had earlier said.

Out of the proposed spend of over 1.22 lakh crore, CIL has planned to invest ₹32,696 crore on coal evacuation, ₹25,117 crore on mine infrastructure and ₹29,461 crore on project development by 2023-24, the minister had said. He had added that the state-owned company will also invest ₹32,199 crore on diversification and clean coal technologies, ₹1,495 crore on social infrastructure and ₹1,893 crore on exploration works. <u>Source</u>

#### Coal in power mix hits peak in over 2 years

Coal's share in India's electricity generation rose to the highest level in at least 9 quarters during the first three months of 2021. The share of renewable energy rose in 2020 when overall power demand was reduced by lockdowns to limit the pandemic. This year, seasonal factors have limited output of renewables, which are weather dependent, helping coal's share to rebound. The share of coal and lignite rose to 78.9% for the quarter ended March 31, from 75.9% a year earlier, a Reuters analysis of daily load despatch data from regulator POSOCO showed.

Coal's contribution to India's annual electricity generation fell for the second straight year in 2020, the data shows, marking a departure from decades of growth in coal-fired power. A consistent rise in the share of renewables culminated in coal's share in electricity generation falling below 60% for the first time in decades on Aug. 12.

Just over five months later, coal's contribution to daily power output rose to more than 80% for the first time in at least 750 days on Jan. 20, a feat that was repeated nine more times to March 31, the data showed. Recovery in coal-fired generation coincided with India's overall electricity demand returning to growth: the country's power demand and share of coal-fired power rose for seven straight months starting September, POSOCO data showed. India's annual electricity demand fell for the first time in at least 35 years in the fiscal year to March, with electricity consumption declining for six straight months ending August. Source



# Transmission charges payable by DICs for the billing month of Mar'21

The Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses), Regulations 2020 came into force with effect from 1.11.2020. In these New Regulations, STOA charges will be determined based on monthly state transmission charges and there shall not be any separate injection and drawl PoC charges, for STOA. Further, DISCOMs having long term Access are not required to make any payment against POC charges for STOA transaction.

Transmission Charges for Short Term Open Access (STOA)			
SI. No.	State	Region	STOA rate (paise/kWh)
1	Delhi	NR	44.97
2	UP	NR	47.62
3	Punjab	NR	47.31
4	Haryana	NR	57.95
5	Chandigarh	NR	41.53
6	Rajasthan	NR	60.04
7	HP	NR	41.86
8	J&K	NR	47.53
9	Uttarakhand	NR	58.28
10	Gujarat	WR	41.92
11	Madhya Pradesh	WR	47.88
12	Maharastra	WR	50.76
13	Chattisgarh	WR	34.80
14	Goa	WR	43.46
15	Daman Diu	WR	49.03
16	Dadra Nagar Haveli	WR	48.19
17	Andhra Pradesh	SR	58.77
18	Telangana	SR	43.39
19	Tamil Nadu	SR	37.84
20	Kerala	SR	39.34
21	Karnataka	SR	48.25
22	Pondicherry	SR	36.03
23	Goa-SR	SR	36.22
24	West Bengal	ER	37.95



25	Odisha	ER	46.48
26	Bihar	ER	42.07
27	Jharkhand	ER	45.40
28	Sikkim	ER	37.80
29	DVC	ER	43.14
30	Bangladesh	ER	32.24
31	Arunachal Pradesh	NER	45.20
32	Assam	NER	38.01
33	Manipur	NER	40.03
34	Meghalaya	NER	38.91
35	Mizoram	NER	41.44
36	Nagaland	NER	56.87
37	Tripura	NER	33.92

Click source for other region POC charges. (Source- CERC)

# **Bilateral Power Market**

# Result of various tenders:-

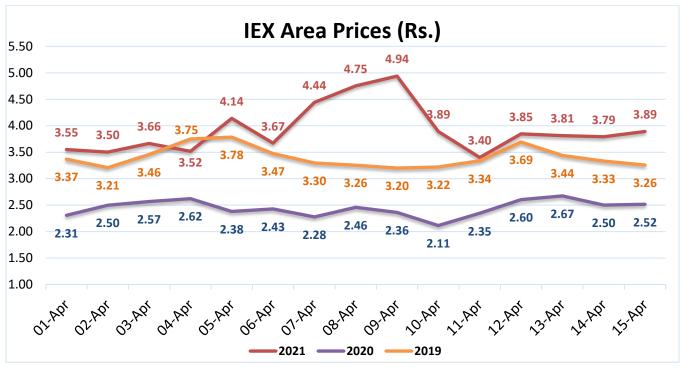
PFC Consulting Limited/Short/21-22/RA/2 (UPPCL)				
SI. No.	Quantity(MW)	Period	Time Block (Hrs.)	Price (Rs./KWh)
1	1000	01.05.2021 to 31.05.2021	19:00 to 24:00	4.99 - 7.5
2	900	01.06.2021 to 30.06.2021	19:00 to 24:00	4.99 - 7.5
3	700	01.07.2021 to 31.07.2021	19:00 to 24:00	4.61 - 4.62
4	900	01.08.2021 to 31.08.2021	19:00 to 24:00	4.61 - 4.62
5	500	01.09.2021 to 30.09.2021	19:00 to 24:00	4.61 - 4.62
	HPSEBL/Short/21-22/RA/4			
SI. No.	Quantity(MW)	Period	Time Block (Hrs.)	Price (Rs./KWh)
1	150	05.04.2021 to 15.04.2021	00:00 to 24:00	3.63
2	100	16.04.2021 to 22.04.2021	00:00 to 24:00	3.61
3	100	23.04.2021 to 30.04.2021	00:00 to 24:00	3.6
PFC Consulting Limited/Short/21-22/RA/6				
SI. No.	Quantity(MW)	Period	Time Block (Hrs.)	Price (Rs./KWh)
1	80	23.04.2021 to 30.04.2021	00:00 to 24:00	3.66

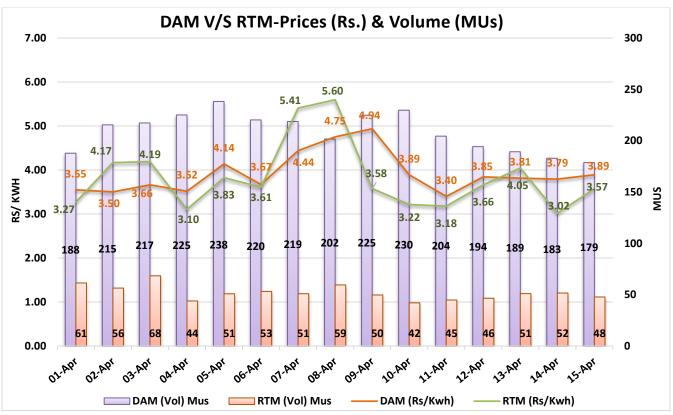
Source





#### **IEX Price Trend**







# **Commodity Price Indices**

Name	Description	Unit	Price
Australian Thermal Coal	Calorific Value- 6,300 kcal/kg (11,340 btu/lb), less than 0.8%, sulphur 13% ash; previously 6,667 kcal/kg (12,000 btu/lb), less than 1.0% sulphur, 14% ash	USD/ MT	86.74
Coal, Indonesia	I, Indonesia Coal Indonesia USD/ MT		92.41
Coal, Colombia	Colombian Coal	USD/ MT	83.44
Crude Oil (Petroleum)	Crude Oil (petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh, US Dollars per Barrel	USD/Barrel	60.46
Diesel	New York Harbor Ultra-Low Sulphur No 2 Diesel Spot Price	USD/Gallon 1.81	
Heating Oil	New York Harbor Conventional Gasoline Regular Spot Price FOB  USD/Gallon 1.74		1.74
Natural Gas, Natural Gas spot price at the Henry Hub terminal in Louisiana, US Dollars per Million Metric British Thermal Unit		USD/MMBTU	2.727
Jet Fuel  U.S. Gulf Coast Kerosene-Type Jet Fuel Spot Price FOB		USD/Gallon	1.70

(Source: ICMW METI Bloomberg Index Mundi)

# Weather (Estimated for next fortnight)

City	Max Temp	Min Temp	Precipitation (Probability)
DELHI	39	23	3%
MUMBAI	33	28	14%
KOLKATA	38	27	8%
CHENNAI	35	27	21%

(Source - Accuweather)

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