TATA POWER



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TPTCL'S E-NEWS LETTER



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Tata Power Trading Company Limited (TPTCL)





Power Market News

Govt taking steps to ensure adequate power supply during peak summer

With the summer season quickly approaching, the Union Ministry of Power convened a highlevel review meeting to ensure no electricity cut throughout this period. While presiding over the meeting, Power Minister R K Singh asked the power companies to ensure adequate supply flow. During the meeting, Power Minister asked all stakeholders to closely monitor the situation and take proactive actions to meet the electricity demand during the coming months.

Singh directed the Central Electricity Authority (CEA) to ensure that a fair and transparent mechanism is devised for allocating coal to various states. Senior officials from the Union Ministry of railways, coal, and power attended the review meeting, which was held earlier this week. The Railway Ministry assured the availability of enough racks for the transport of coal. The Power Ministry has directed NTPC to run its 5,000 MW gas-based power stations during the April and May crunch periods. In addition, 4,000 MW of additional gas-based power capacity would be added by other entities for availability during the summer months.

GAIL has already assured the Ministry of Power of the necessary supply of gas during the summer months. All the hydro plants have been instructed to operate in consultation with RLDCs/ SLDCs (Regional/ State Load Dispatch Centers) to optimize water utilization in the current month for better availability during the next month.

As per the CEA estimates, the peak electricity demand is expected to be 229 GW during April, when the electricity demand is the highest in the country. The demand then tapers off as monsoon season picks up from the southern part of the country and covers the whole country over the next three to four months. Estimates have it that the energy demand in April 2023 will be the highest of the year, at 1,42,097 MU. This demand is expected to decrease to 1,41,464 MU in May and further drop to 1,17,049 MU by November. Source

IEX commences trade on High Price Day Ahead Market

Indian Energy Exchange (IEX), India's premier energy exchange, announced the commencement of trade in the High Price Day Ahead Market (HP - DAM) segment. The Central electricity Regulatory Commission (CERC) in its order dated 16th February 2023, approved the introduction of HP-DAM in the Integrated Day Ahead Market segment in the Power Exchange. This will provide a new avenue to the high variable cost generators who may not have been able to participate in DAM due to the existing price ceilingof Rs.12/kWh.

HP-DAM segment was launched by Shri. R.K. Singh, Honourable Minister of Power and New and Renewable Energy, during a webinar held on 9th March 2023. Speaking at the launch of HP-DAM, the Honourable Power Minister congratulated all the stakeholders for working collaboratively and envisioning the HP-DAM segment. He noted that it is a step towards reforming the evolving power market by meeting the current demand through optimum utilisation of the power generation capacity.

HP-DAM will enable high-cost generators, falling under the category - Gas based Power Plants using imported RLNG and Naphtha; Imported Coal based Power Plant using imported coal; and Battery Energy Storage Systems - to participate in the market. These generators will now be able to sell electricity on IEX platform, with a price range of '0' to Rs. 50/unit. This unique segment will bring such capacity on the spot markets in a high-demand scenario. <u>Source</u>



Use hydropower units optimally at peak hours: Power Ministry

The power ministry has asked states to operate hydropower plants optimally at peaking hours in April and May to help support demand and maintain grid stability. Power minister RK Singh held a meeting with states to assess preparedness to meet electricity demand in the upcoming summer months, people aware of the deliberations said.

Hydropower plants can start at any time and, therefore, be used efficiently in the peak hours in the evening when solar and wind generation is less. The Centre assured states of railway rakes supply for coal transport at their power plants in a fair and equitable manner, a senior government official said. Singh also reviewed all the projects under development by states. The Central Electricity Authority (CEA) expects 229 GW peak demand in April compared to 211 GW last year. <u>Source</u>

Odisha: By 2030, plan to increase power generation by 5,050 MW

BHUBANESWAR: The state government is planning to increase power generation both from conventional plants and renewable energy sources by about 5,050 MW by 2030, energy minister Pratap Keshari Deb has informed the assembly. On a question by Congress MLA Bhupinder Singh on energy production status of the state, Dev in a written reply stated that the current production from different sources stands at around 4,242 MW.

According to an analysis conducted by Grid Corporation of Odisha (Gridco), the demand of energy will grow to 6,682 MW in the next 10 years. "Gridco has already entered into agreement with different entities to increase the power production in the state," the minister stated. As per data given by the minister, the state government through different projects is aiming to increase power production to 2,865 MW through conventional sources, while 2,185 MW will be generated from different renewable energy sources.

An expansion project of National Thermal Power Corporation (NTPC) at Talcher in Angul, with a capacity of 660 MW will be commissioned by 2027-28, while NTPC, Darlipali, NLC India Ltd at Talabira in Jharsuguda and OPGC will add another 1,530 MW by 2027-28. Similarly, in case of renewable energy, through different hydroelectric power projects, the state will generate 830 MW. From wind power projects, the state will generate 416 MW and from solar power, the state will get another 939 MW. Different hydro power projects are currently under execution at Khandhamal, Boudh and other places. Solar power projects are being executed by different entities, including NTPC, in different parts of the state, Deb said. Source

Power prices expected to remain firm next fiscal amid higher demand: Crisil

Power prices are expected to remain firm next fiscal on the back of elevated demand growth of 5.5-6 per cent, and the demand is set to close this fiscal up 9.5-10 per cent over 8.2 per cent last fiscal, a report said.

The fears of a heat wave has seen the short-term power prices soaring by a full 151 per cent. This was on the back of a 42 per cent on-year spike in prices in February, Crisil said in a report. The demand growth would mark a decadal high rate of growth and almost double the 20-year average of 5.2 per cent, the report added. The report noted that demand growth weighed in at 7.7 per cent in February and averaged 10 per cent for the 11 months of the current fiscal despite a high base of fiscal 2022 due to extreme weather events and robust industrial and manufacturing activity. March is unlikely to see any let up amid early warnings on possible heat waves in northern and central regions this summer, the report said.



According to Hetal Gandhi, a director with the agency, a hotter-than-usual summer with a high probability of multiple heat waves is expected to keep power demand growing even next fiscal at 5.5-6 per cent, despite two straight years of robust growth. The first half should see even higher growth. On generation, non-hydro renewable sources are estimated to account for 11 per cent this fiscal and their share is expected to rise a notch next fiscal, with solar and wind accounting for 13 per cent. Hydro power accounts for another 11 per cent now.

But with limited storage capacities, thermal capacities will continue to shoulder the burden of meeting any sudden surge in demand, especially in the summer when water levels in hydro projects drop. In fact, the share of hydro dropped to 8 per cent last summer from average 11 per cent for the full year.

Meanwhile, power plants using imported coal, aggregating to 17 GW, or 8 per cent of the total thermal capacity, were operating at a low plant load factor of 21 per cent as of February, massively down the aggregate thermal plant load factor of 63 per cent. And nearly 97 per cent of these imported capacities are owned by private players, she said, adding, as a result, short-term power prices have surged.

To tame the prices, the power ministry has floated a tender to buy 1.5 GW from plants using imported coal with untied capacity for one month (April 10–May 10). Though there is 8-GW overall untied thermal capacity available, the share of imported coal based plants without short and medium term power purchase agreements in this untied capacity remains a monitorable.

According to Surbhi Kaushal, an associate director at the agency, the government aims to pump this entire 1.5 GW to the short-term market at no cost to tame prices. Imported coal plants will bid on fixed tariff with an upside of price on variable charge indexed at Rs 5.34/kWh. This implies a 20 per cent markup on variable charge of Rs 4.4 at an estimated Rs 7,500 per tonne imported coal prices for Q1FY24. The move is in addition to the government's move to invoke Section 11 of the Electricity Act, mandating all plants using imported coal to operate at full capacity, enabling better supply position.

Coal stocks remain at 12 days with the plants, compared to 14 days over the past 35 months, and all wheels are focusing on getting coal supplies on stream. Structural steps such as fasttracking coal-based rail transportation projects are also being expedited.

However, short-term markets have reacted. A surge in demand has led to purchase bids surpassing the sell bids in the short-term market by 6 GW on average in the past 15 days. The result is a 42 per cent on-year increase in prices in February and a 151 per cent increase on the first day of March. The market clearing price in the day-ahead market (DAM) on the Indian Energy Exchange breached Rs 6.5/kWh in February, which is the highest level seen in the past eight months.

In 2022, the purchase-sell bid differential started turning positive in the first week of March, averaging over 3.5 GW. High prices forced the Central Electricity Regulatory Commission to intervene and reduce the price upper limit from Rs 20/kWh to Rs 12/kWh in April. Despite this, positive differential averaged over 10 GW in April-May 2022, pushing up prices to Rs 10/kWh on average over the period. Crisil expects DAM prices to average Rs 6-6.5/kWh this fiscal, compared to average of Rs 3.1/kWh in fiscals 2015-19. Average price for next year in DAM market is expected to remain under Rs 7-8/kWh, with almost non-operational gas based power generation of 24 GW to become competitive with falling gas prices. *Source*



Why India's power demand has surged: Reasons vary across states

In 2022, India's power demand grew about 8% — or at nearly double the pace of the Asia Pacific region something to more than 149.7 terawatt-hours (TWh) from the previous year. And in the first two months of 2023, demand jumped 10% from a year ago.

Following are the factors behind the rapid growth in demand.

Where is demand growth coming from?

In absolute terms, the states with the strongest growth in demand in 2022 were the northwestern desert state Rajasthan and the western states of Gujarat and Maharashtra, where many of the country's industries are concentrated, a Reuters analysis of government data showed.

The eastern state of Chhattisgarh, known for extensive mining activity, had 16.6% growth in the five months since the monsoon ended in 2022, while Rajasthan's power demand grew 15.1% in the same period. Growth rates were also high in Punjab in the north, where agricultural demand makes up the lion's share of total power use, and Madhya Pradesh, Telangana and Bihar — where residential demand has historically accounted for most of the load.

Why is demand growing?

Prime Minister Narendra Modi and Finance Minister Nirmala Sitharaman have previously linked increased power demand to higher economic activity. Industrial and commercial activity account for more than half of India's annual power use. Homes account for a fourth, while agriculture has accounted for over a sixth in the recent years.

Consumption patterns vary wildly by state and season. A heatwave and easing of COVID-19 curbs drove power demand higher in the first half of 2022. Erratic weather and a jump in agricultural activity were among the most prominent reasons behind the high growth in the second half of last year, according to a federal power ministry presentation reviewed by Reuters.

In northern Haryana and Telangana in the south, unexpected dry spells contributed to higher demand from agricultural consumers of electricity during November and December, according to the presentation, which was based on assessments by grid operators in different states. Higher demand from industry in Andhra Pradesh and tech employees returning to office in India's silicon valley Bengaluru in Karnataka state also drove power use up.

In the football-crazy southern state of Kerala, the live streaming of World Cup matches potentially contributed to a 4.1% hike in peak demand, a power ministry official said in the presentation. In Punjab, a policy to provide free power to some consumers boosted demand, while a decision to increase hours of power supply to agricultural consumers in Rajasthan resulted in a 22% rise in November and 15% rise in power demand in December, according to the presentation.

What is next?

Officials are scrambling to ensure India does not face power outages this summer, when demand typically peaks. India faces high risks of nighttime blackouts this summer, following years of neglect in adding new coal and hydropower capacity, needed particularly at night when solar capacity is unavailable. **Source**



Dark nights ahead: Why India faces increased risk of blackouts this summer

Growing solar power usage has helped fuel India's surging power demand, but the country could see increased nighttime blackouts this summer and in coming years. Existing coal-fired and hydropower plants in the country may not be enough to support growing power demand in summer, especially during the nights when solar energy is unavailable.

While the growing use of solar farms has helped the country tackle surging power demand during the day, the shortage of traditional power sources could expose millions in the country to widespread outages at night, according to a Reuters report.

Stressed situation

An internal note by the central grid regulator indicates that India's power availability in "non-solar hours" in April is expected to be 1.7 per cent lower than peak demand. This essentially means the nighttime peak electricity demand during April is expected to hit 217 gigawatts (GW), which is 6.4 per cent more than the highest nighttime levels recorded in the same month last year.

The Grid Controller of India (Grid-India) said in a note dated February 3 that the "situation is a little stressed".

Summer heatwaves may worsen situation

The country has already witnessed record temperatures in February, and the India Meteorological Department (IMD) has already indicated that months during the summers are likely to be hotter. The weather department has already predicted heat waves between March and May.

Rising temperatures will lead to a sharp rise in power demand, especially during the nighttime when most people at home will have maximum dependency on fans, air coolers and air conditioners. This will further increase the risks of nighttime power outages, given the fact that generational capacities will have to support increased power demand from citizens and also industries that operate around the clock and need uninterrupted power supply.

Steps required to meet power demand

The government is believed to be actively taking steps to avoid power outages in the upcoming summer months. Ministry of Power Secretary Alok Kumar told Reuters that the government is "making capacity available to all states at competitive rates". It may be noted that after the Grid-India report, the government has started maintenance at some coal-fired power plants and secured extra gas-fired capacity in order to avert any power crisis. This was confirmed by a senior government official to the news agency.

Grid-India's note indicated that as much as 189.2 GW of coal-fired capacity is expected to be available in April, up more than 11 per cent from last year. However, coal, nuclear and gas capacity are expected to meet only about 83 per cent of peak demand at night.

Hydropower can prove crucial in meeting much of the remaining supply as it is more flexible in comparison to coal-fired plants, where power generation cannot be increased and decreased quickly to address demand variability.

But Grid-India has forecast peak hydropower availability in April to be 18 per cent below the level a year earlier when output was boosted by favourable weather conditions. Hetal Gandhi, Director- Research at CRISIL Market Intelligence and Analytics told news agency Reuters that imported coal-based power plants would be required to crank up output to up to 55 per cent of the total potential from 21 per cent in



February, while domestic coal-fired units will have to increase output to 75 per cent of potential from 69 per cent in February. "The burden of increased supply will definitely be borne by coal and gas," Gandhi said, but indicated that it would be tough.

Higher possibility of nighttime outages

The possibility of power outages at nighttime is greater because supply in daylight hours has been supported by nearly four-fold growth in solar capability over the past five years.

As of April 2022, solar boosted renewable energy's contribution to as much as 18 per cent of India's generation in the middle of the day. However, the burden increased after sundown, as coal-fired capability has grown only 9 per cent over the past five years. <u>Source</u>

Power ministry panel suggests real-time monitoring of grid

The country will soon have a modern and smart power transmission system with features such as real-time monitoring and automated operation of grid. Also, there will be better situational assessment, capability to have increased share of renewable capacity in the power-mix, enhanced utilisation of transmission capacity and greater resilience against cyber-attacks as well as natural disasters.

These are some of the main recommendations by a task force, which was set up by the power ministry in September 2021 under POWERGRID chairman, to suggest ways for modernisation of the transmission sector and making it smart and future ready. The report of the committee was accepted by the government after deliberations chaired by power and renewable energy minister R.K. Singh last week.

The panel has also suggested centralised and data driven decision-making and reduction in forced outages through self-correcting systems. Meanwhile, during deliberations held over the recommendations of the task force, Singh emphasised that a modern transmission grid is vital to achieve the government's vision to provide 24×7 reliable and affordable power to the people and also meet the sustainability goals. He further said that a fully automated, digitally controlled, fast responsive grid which is resilient to cyber-attacks and natural disasters is also the need of the hour. **Source**

India to have a modern and smart power transmission system; Government accepts the Task Force report

The country will soon have a modern and smart power transmission system with features such as real-time monitoring and automated operation of grid, better situational assessment, capability to have increased share of renewable capacity in the power-mix, enhanced utilization of transmission capacity, greater resilience against cyber-attacks as well as natural disasters, centralized and data driven decision-making, reduction in forced outages through self-correcting systems etc. These and other recommendations are part of a report of a task force set up by the Power Ministry in Sep, 2021 under the chairmanship of CMD, POWERGRID to suggest ways for modernization of Transmission Sector and making it smart & future ready. The other members of the Task Force included representatives from State Transmission Utilities, Central Electricity Authority, Central Transmission Utilities, MeiTY, IIT Kanpur, NSGPMU and EPTA.

The report of the committee was accepted by the government after deliberations chaired by Union Power & NRE Minister Shri R. K. Singh last week. During the meeting, the Minister emphasized that a modern transmission grid is vital to achieve the government's vision to provide 24x7 reliable and affordable power to the people and also meet the sustainability goals. Shri Singh said that a fully automated, digitally



controlled, fast responsive grid which is resilient to cyber attacks and natural disasters is the need of the hour. The Minister said that such a system should ensure isolation of specific areas in case of any contingency, so as to protect the grid and prevent larger outages. Appreciating the efforts of the Task Force, Shri Singh directed the CEA to formulate necessary standards and regulations for adoption of identified technological solutions and set benchmark performance levels so as to build a robust and modern transmission network in the country.

The Task force in its report has recommended a bouquet of technological and digital solutions which can be adopted to make the state transmission grids future ready. These recommendations have been clubbed under categories of modernization of existing transmission system; use of advanced technology in construction & supervision, operations & management; smart & future-ready transmission system; and up-skilling of workforce. The Task Force has recommended Centralized Remote Monitoring, Operation of Substations including SCADA, Flexible AC Transmission devices (FACTs), Dynamic Line Loading system (DLL), Wide Area Measurement System (WAMS) using PMUs and data analytics, Hybrid AC / HVDC system, Predictive maintenance technique using Al/ML algorithms, HTLS Conductors, Process Bus based Protection Automation and Control GIS/Hybrid Substation, Cyber Security, Energy Storage System and Drones & Robots in construction/inspection of transmission assets. The use of robots is expected to not only minimize human intervention and minimize life risks/hazards but also save time with while ensuring accuracy during construction and maintenance. The Task force also recommended benchmarks for transmission network availability and voltage control based on performance of global transmission utilities.

While the short-term to medium term recommendations will be implemented over 1-3 years, the long-term interventions are proposed to be implemented over a period of 3-5 years. <u>Source</u>

HPX crosses 2.5 BUs of trade, with a rapid increase in trade volume

Hindustan Power Exchange Ltd. (HPX), India's fastest power exchange promoted by PTC India Ltd, Bombay Stock Exchange, and ICICI Bank, has successfully crossed the milestone of 2.5 Billion Units of power traded within 8 months of its launch. HPX was able to cross this landmark with a rapid increase in trade volume across Contingency, Weekly, Monthly, and Long Duration Contracts (LDC) segments. The exchange recently concluded monthly long duration contracts of 453.7 MU which will be delivered in the months of March and April 23 and is a part of the above volume.

HPX raced to 2.5 BU within a short span of 67 days with a daily average volume of ~18 MU, post crossing the historic landmark of 1 BU, which happened within six months of its launch. This is the fastest increase in volume for the initial few months of the existence of the power exchanges operating in the country. A large part of this volume is attributed to the LDCs, which were introduced on the HPX platform in the month of February. HPX successfully executed the very first Electronic Reverse Auction (e-RA) contract for the Indian Railways, which saw encouraging participation from generators. Since the launch, more than 25+ E-RA tenders have been launched on HPX in just three weeks with the successful execution of 7 e-RAs, and more are in line to be executed.

The LDC segment on HPX is picking up pace because of the support HPX provides for the identification of demand pockets for the Buyers and helping them to optimise their power purchase costs. The team at HPX also works closely with all major generators and traders to ensure encouraging responses to these LDCs and to ensure better liquidity for these contracts. The exchange plays an important role in ensuring the conversion of auctions into successful contracts as well as guaranteed timely payments to the sellers, which is increasing the acceptability of e-RAs' on HPX.



With roughly 500 market participants now onboard HPX, the exchange has covered almost all the major players across the country and is looking well-prepared for increased market presence in the coming months. Backed by the latest technology and a series of innovative features, the fastest power exchange of India promises to offer speed, transparency, and better price discovery in the execution of trades.

In the Contingency segment, HPX has garnered market share of 30 % on average in the last two months, which went up to 55% on certain days. Since inception, the market share of HPX stands at ~20% in these segments. The exchange is presently offering trades in Contingency & Green Contingency contracts, Intra-day, Weekly, Monthly, and Any-day contracts in the Term Ahead Market (TAM) along with e-RA based Long Duration contracts for up to 90 days. The exchange is also trading Renewable Energy Certificates (REC) and ESCerts (Energy Saving Certificates) contracts. The Day Ahead Market (DAM), Green Day Ahead Market (GDAM) & Real Time Market (RTM) are also live at HPX and would be the next focus areas. HPX is steadily increasing its product portfolio and is set to provide a wide range of contracts to address the demand of different segments of the electricity market. Source

Outlook for thermal power sector revised to Stable: ICRA

Rating agency Icra has revised thermal power sector outlook to 'stable' from 'negative' due to strong demand growth and realisation of dues from discoms under LPS (late payment surcharge) scheme. The Icra's outlook for the thermal power segment has been revised to stable from negative, supported by the healthy improvement in the thermal PLF (plant load factor or capacity utilisation) level in FY2023, which is likely to sustain in FY2024, coupled with the reduction in dues from state distribution utilities (discoms), an Icra statement said.

The PLF improvement is driven by the strong recovery in electricity demand growth in the country. A sustained growth in electricity demand is expected to improve the visibility on the signing of new power purchase agreements (PPAs) for the thermal IPPs (independent power producers), it stated.

Vikram V, Vice President & Sector Head - corporate ratings, Icra, said, "The all-India thermal PLF level is expected to improve from 58.9 per cent in FY2022 to 64.0 per cent in FY2023 and further to 65.5 per cent in FY2024, led by healthy demand growth and limited thermal capacity addition. The full-year demand growth for FY2023 is estimated at 9.5-10 per cent, which is likely to moderate in FY2024, though remaining healthy at 5.5-6.0 per cent."

Further, he stated that the power-generating companies are benefiting from the realisation of overdues from discoms under the late payment surcharge scheme notified by the power ministry in June 2022. Dues from discoms have declined from Rs 1.3 trillion (Rs 1.3 lakh crore) as of May '22 to about Rs 0.6 trillion (Rs 60,000 crore) as on March 1, 2023, according to data from the PRAAPTI portal.

While this is a near-term positive for generation companies, a sustainable improvement in payments is linked to improving the financial profile of the discoms. This remains a key monitorable from the outlook perspective for the thermal segment, he added. The improved demand and higher tariffs in the short-term market have led to an improvement in profitability for thermal IPPs in 9M FY2023.

This is offset to some extent by the rise in open market coal prices. Also, the modest coal stock position remains a concern area for the sector. While the coal stock level at power plants is witnessing a gradual improvement and was at ~12 days as on February 28, 2023, it remains half of the normative stock level of ~24 days.



Given the expectations of healthy demand growth in the summer season, the augmentation of coal supplies on a sustained basis remains important to ensure an uninterrupted power supply. He stated, "The discoms in 17 out of the 28 states have filed tariff petitions for FY2024, indicating moderate progress. The median tariff hike proposed for FY2024 stands at 5.0 per cent against the 1.9 per cent median hike approved for FY2023."

Considering the upward pressure on the cost of supply amid the increased use of imported coal and higher tariffs in short-term tariffs and rising interest costs towards the loan availed under the LPS scheme, the cash gap per unit is likely to remain high at over 60 paise per unit for state-owned discoms at the all-India level in FY2023 and FY2024, he pointed out.

In this context, he said that timely issuance of tariff orders with adequate tariff hikes by the state electricity regulators remains important. Icra's outlook for the power distribution segment remains negative. The progress in improving the operating efficiencies, realisation of dues from respective state governments and government bodies, and timely pass-through of cost variations to customers through regular tariff revisions are key to improving the financial position of the distribution utilities on a sustained basis, it stated. <u>Source</u>

Indian Energy Exchange trade volume drops 7 pc to 8,200 million units in February

The Indian Energy Exchange, India's premier energy exchange, achieved 8200 MU total volume in February 2023, including Green Power trade of 341 MU, 3.74 lac RECs (equivalent to 374 MU) and 1.54 ESCerts (equivalent to 154 MU).

While the average daily volume traded on the Exchange increased in February '23 by 5% MoM, the overall volume declined 5% MoM due to lesser trading days vis-à-vis the previous month. The electricity volume on the Exchange in February '23 at 7673 MU, registered 6% decline on YoY basis and 7% MoM basis. The overall volume on the Exchange during the month was 8200 MU, degrowth of 7% on YoY basis.

Sell side liquidity continued to be affected due to high input costs. Demand for power increased due to unusually warm temperature witnessed in February across several parts of the country, and sustained momentum in economic activities. The energy met in the country during February '23 stood at 118 BU, 9% higher on YoY basis, as per data published by the National Load Dispatch Center.

Supply constraints are expected to ease in the coming months due to the conducive policy and regulatory initiatives. These initiatives will lead to increase in coal and gas based generation, resulting in higher liquidity on the Exchange in the coming months. This will provide cost optimisation opportunities to Discoms and Open Access consumers.

IEX resumed trading of Energy Saving Certificates (ESCerts) on 14th February 2023, after a gap of 14 months. During the month, nearly 1.54 Lac ESCerts (equivalent to 154 MU) were traded on IEX, with 97% market share. The Day-Ahead Market volume decreased from 4893 MU in January '23 to 4664 MU In February '23, i.e 5% degrowth on MoM basis. The Day Ahead Market volume was lower by 17% on YoY basis due to high prices resulting from a constrained supply scenario, which led to continued high spot e-auction coal prices.

The Real-Time Electricity Market (RTM) achieved 1714 MU volume during the month, registering 10% YoY growth. There were 722 participants in this segment during the month. The consistent growth of



RTM segment reflects its relevance to distribution utilities and industries for efficiently balancing their power demand-supply in real-time basis.

The Term-Ahead Market (TAM), comprising intra-day, contingency, daily & weekly contracts, and contracts upto 3 months, traded 954 MU during the month, an impressive increase of 81% on YoY basis and 5% on MoM basis.

IEX Green Market, comprising the Green Day-Ahead and Green Term-Ahead Market segments, achieved 341 MU volume during February '23, down 2% on MoM basis. The Green Day-Ahead Market achieved 250 MU volume with a weighted average price of Rs 6.57 per unit. The market saw participation from 203 market participants during the month, with the highest number of participants in a single day at 159 on 22nd February.

The Green Term-Ahead Market achieved 91 MU volume with an average monthly price of Rs 8.22/unit for Non-Solar and Rs 10.18/unit for Hydro. A total of 3.74 lac RECs were cleared in the trading session at IEX held on Wednesday, 22nd February, with cleared price of Rs. 1000/REC. In the corresponding month last year, 6.12 lac RECs were traded. The next REC trading session at the Exchange is scheduled on Wednesday, 29th March '23.

Trading of ESCerts under PAT Cycle II resumed on IEX platform from 14 February 2023. Trading takes place every Tuesday from 1300 hrs. to 1500 hrs. Floor price for trading is fixed at 10% of the price of one Mtoe of energy consumed, as notified by the Central Government, which translates to Rs. 1840. In February '23, 1.54 Lac ESCerts (equivalent to 154 MU) were traded on IEX, with 97% market share. IEX pioneered trade in ESCerts under PAT Cycle I in 2017 with 100% trade on its platform. **Source**

Coal India Limited Ready To Meet Dry Fuel Demand From Power Sector Companies

Public sector company Coal India Limited (Coal India Limited) is ready to meet the coal demand of the power sector amidst the early arrival of summer in the country and a surge in the demand for electricity in the industrial sector. The company has informed about this on 13th March 2023.

The coal producer company has expressed hope of supplying 156 million tonnes of coal to the power sector in the April-June quarter of the financial year 2023-24. This would be 25.6 per cent of the revised annual supply target of 610 million tonnes for the sector in 2023-24. Coal India said, "The company expects to supply 156 million tonnes of coal in the April-June quarter of the next financial year amid increasing demand for coal."

Let us tell you that Coal India Limited contributes 80 percent to the domestic coal production. Along with this, it is the main supplier of coal in power generation plants.

Coal India's face-to-face reserves are expected to touch 68 million tonnes by the end of the current financial year, up from 57.3 million tonnes. With this, the company is on track to take its production to 700 million tonnes by the end of FY 2022-23 while maintaining the pace of production. <u>Source</u>



Transmission charges payable by DICs for the billing month of March 2023

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	48.44	
2	UP	NR	50.78	
3	Punjab	NR	53.97	
4	Haryana	NR	61.40	
5	Chandigarh	NR	61.39	
6	Rajasthan	NR	53.30	
7	HP	NR	53.74	
8	J&K	NR	50.29	
9	Uttarakhand	NR	54.53	
10	Gujarat	WR	47.32	
11	Madhya Pradesh	WR	53.45	
12	Maharashtra	WR	58.08	
13	Chhattisgarh	WR	38.99	
14	Goa	WR	52.06	
15	Daman Diu	WR	52.45	
16	Dadra Nagar Haveli	WR	52.45	
17	Andhra Pradesh	SR	81.56	
18	Telangana	SR	57.57	
19	Tamil Nadu	SR	51.45	
20	Kerala	SR	53.12	
21	Karnataka	SR	56.91	
22	Pondicherry	SR	50.08	
23	Goa-SR	SR	40.84	
24	West Bengal	ER	42.22	
25	Odisha	ER	46.77	
26	Bihar	ER	44.42	
27	Jharkhand	ER	51.76	
28	Sikkim	ER	44.11	



29	DVC	ER	51.10
30	Bangladesh	ER	35.99
31	Arunachal Pradesh	NER	48.29
32	Assam	NER	40.59
33	Manipur	NER	45.14
34	Meghalaya	NER	42.18
35	Mizoram	NER	42.50
36	Nagaland	NER	56.09
37	Tripura	NER	47.92

Bilateral Tender Results: -

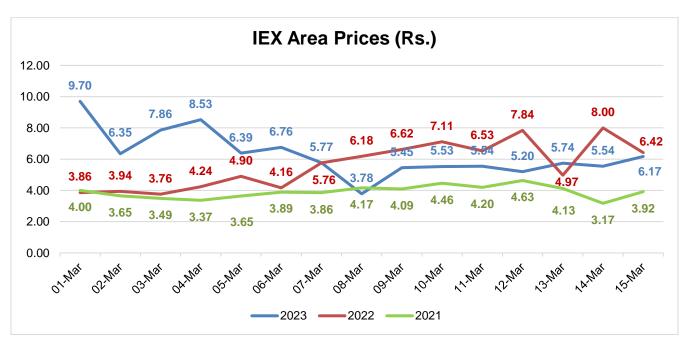
SI No	Quantum (MW)	Supply Period	Time Blocks (Hrs.)	Price (Rs./kWh)	LOI Status	
	PFC Consulting Limited/Short/22-23/RA/246					
1	200	01.04.2023 to 31.07.2023	00:00 to 24:00	7.06	Awaited	
		PSPCL/Shor	rt/22-23/RA/242			
1	500	01.03.2023 to 15.03.2023	00:00 to 24:00	-		
2	500	01.04.2023 to 15.04.2023	00:00 to 24:00	-		
3	500	16.04.2023 to 30.04.2023	00:00 to 24:00	-		
4	500	01.05.2023 to 15.05.2023	00:00 to 24:00	9.5		
5	500	16.05.2023 to 31.05.2023	00:00 to 24:00	9.5		
6	500	01.06.2023 to 15.06.2023	00:00 to 24:00	9.42		
7	500	16.06.2023 to 30.06.2023	00:00 to 24:00	9.42		
8	500	01.07.2023 to 15.07.2023	00:00 to 24:00	8.65	Awaited	
9	500	16.07.2023 to 31.07.2023	00:00 to 24:00	8.65		
10	500	01.08.2023 to 15.08.2023	00:00 to 24:00	8.65		
11	500	16.08.2023 to 31.08.2023	00:00 to 24:00	8.65		
12	500	01.09.2023 to 15.09.2023	00:00 to 24:00	8.7		
13	500	16.09.2023 to 30.09.2023	00:00 to 24:00	8.7		
14	500	01.10.2023 to 15.10.2023	00:00 to 24:00	8.61		
15	500	16.10.2023 to 31.10.2023	00:00 to 24:00	8.61		
TPCL/Short/22-23/RA/244						
1	100	01.04.2023 to 30.04.2023	00:00 to 24:00	14		
2	100	01.05.2023 to 31.05.2023	00:00 to 24:00	14	Awaited	
3	100	01.06.2023 to 30.06.2023	00:00 to 24:00	14	Awaiteu	
4	100	01.07.2023 to 29.02.2024	00:00 to 24:00	-		

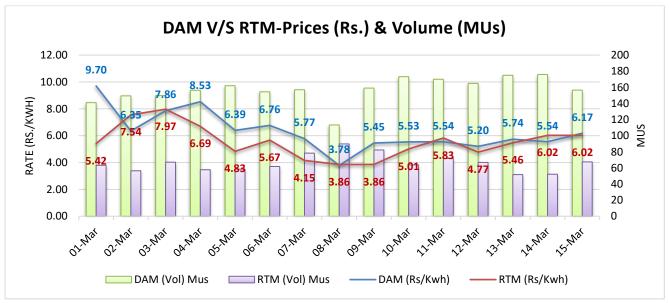




BEST/Short/23-24/RA/11					
1	75	01.04.2023 to 30.04.2023	09:00 to 18:00	10.25-10.7	
2	100	01.05.2023 to 31.05.2023	09:00 to 18:00	9.98-10.5	
3	75	01.06.2023 to 30.06.2023	09:00 to 18:00	9.98-10.5	LOI Issued
4	37	01.10.2023 to 31.10.2023	09:00 to 18:00	10.5	
5	25	01.12.2023 to 31.12.2023	09:00 to 18:00	10.5	

IEX Price Trends







Weather (Estimated for next fortnight)

City	Max Temp	Min Temp	Precipitation (Probability)
DELHI	28	19	25%
MUMBAI	31	23	8%
KOLKATA	33	23	34%
CHENNAI	34	26	21%

(Source - Accuweather)

TPTCL offers comprehensive consultancy for Connectivity Long term Medium Term & short term Open Access- For details please contact px@tatapower.com; For any suggestions and feedback Please write to us on pmc@tatapower.com

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