

POWER MARKET CAPSULE-178th Edition

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TPTCL'S E-NEWS LETTER



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Tata Power Trading Company Limited (TPTCL)



Power Market News

Power consumption up by 17% to 59.36 BU in July; reaches pre-COVID levels

India's power consumption grew nearly 17 per cent in the first fortnight of July to 59.36 billion units (BU) and returned to pre-pandemic level mainly due to easing of lockdown curbs and delayed monsoon, according to power ministry data. Power consumption during July 1-14 last year was 50.79 BU. Power consumption was recorded at 52.89 BU in the first fortnight of July in 2019. Thus, consumption of power has not only grown year-on-year but also returned to pre-pandemic level.

In July 2020, power consumption recovered to 112.14 BU, but remained lower than 116.48 BU in the same month of 2019 (pre-pandemic level). Experts say recovery in power demand and consumption in the first fortnight of July is mainly due to delayed monsoon and surge in economic activities amid easing of lockdown restrictions by states. They said power demand as well as consumption returned to pre-COVID levels in the first fortnight of July and recovery would be robust in coming days.

The commercial and industrial power demand and consumption got affected April onwards this year due to lockdown restrictions imposed by states. Experts said that amid decline in the number of daily COVID-19 positive cases across the country and easing of lockdown restriction by the states, the commercial and industrial demand of power would definitely rise from July onwards.

Peak power demand met or the highest supply in a day touched an all-time high of 200.57 GW in the first fortnight of July (recorded on July 7, 2021). Daily power consumption also touched an all-time high of 4,508 million units on July 7, 2021. In the first fortnight of July, peak power demand met recorded growth of nearly 18 per cent compared to 170.40 GW (recorded on July 2). Peak power demand met for the entire month of July 2020 was also 170.40 GW.

The peak power demand met was recorded at 175.12 GW in July 2019. Last year, the government had imposed a lockdown on March 25, to contain the spread of coronavirus. The lockdown was eased in a phased manner, but had hit the economic and commercial activities and resulted in lower commercial and industrial demand for electricity in the country.

Power consumption in April 2021, saw year-on-year growth of nearly 38.5 per cent. The second wave of COVID-19 started in the middle of April this year and affected the recovery in commercial and industrial power demand as states started imposing restrictions in the latter part of the month. Power consumption in the country witnessed 6.6 per cent year-on-year growth in May at 108.80 BU despite a low base of 102.08 BU in the same month of 2020.

As per the latest data, power consumption in June grew nearly 9 per cent to 114.35 BU, compared to 105.08 BU in the same month last year. Power consumption in February this year was recorded at 103.25 BU, compared to 103.81 BU a year ago. In March this year, power consumption grew nearly 22 per cent to 120.63 BU, compared to 98.95 BU in the same month of 2020. After a gap of six months, power consumption had recorded 4.6 per cent year-on-year growth in September 2020, and 11.6 per cent in October 2020. In November, power consumption growth slowed to 3.12 per cent, mainly due to early onset of winters. In December, it grew 4.5 per cent, while this was 4.4 per cent higher in January 2021.

[Source](#)



India's power demand likely to grow over 5% in FY22, says CRISIL

India's power demand is expected to grow over 5 per cent this fiscal, Crisil Ratings said. Industry demand is expected to prop up India's energy consumption by over 75 billion units (BUs) this fiscal, or 5 per cent on-year - the fastest growth in the past three fiscals, it said. "The heightened demand will be met largely by thermal generation companies (gencos) as generation from renewable, hydro and nuclear remains small at less than 25 per cent of the overall generation mix.

"That should charge up plant load factor (PLFs) of thermal gencos to 58 per cent, higher than the pre-pandemic level of 56 per cent." As per Crisil Ratings, after a cumulative growth of 5.5 per cent in the three fiscals through 2019, growth in power demand had fallen to 1 per cent for fiscal 2020 due to lower economic activity in second half of that fiscal. "Then, in fiscal 2021, demand declined by 0.5 per cent - an aberration not seen in decades - as the pandemic brought commercial and industrial activity to a grinding halt, particularly in the first half."

Crisil Ratings Director Ankit Hakhu said that growth in power consumption this fiscal would be a break from the muted trend seen in the past two fiscals. "It will ride on an expected recovery in industrial activity amid healthy GDP growth, forecast at 9.5 per cent on-year." "The on-year growth of over 5 per cent or 75 BUs would have been higher by as much as 100 basis points (bps), but for the second wave that hit us in the first quarter of this fiscal." [Source](#)

Nuclear power capacity of India to touch 22,480 Mega Watt by 2031: Report

In a response to a question in the Lok Sabha, recently Union Minister of State (Independent Charge) Development of North Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr. Jitendra Singh said that nuclear energy is an important component of the country's energy mix and is being pursued along with other sources of energy in an optimal manner.

India's nuclear power generation capacity is likely to touch 22,480 Mega Watt by 2031 from the present 6,780 MW with 22 reactors, as per reports. According to the central government, one more atomic power plant with 700 MW (Unit 3 at Kakrapar Atomic Power Project (KAPP), Gujarat) was connected to the grid in January this year. When the third unit at KAPP starts commercial generation then the total atomic power generation capacity will go up to 7,480 MW. The government said at present there are 10 reactors, including 500 MW prototype fast breeder reactor -PFBR- belonging to Bharatiya Nabhikiya Vidyut Nigam Ltd-Bhavini, totaling to 8,000 MW under construction at various stages. The Government has also accorded administrative approval and financial sanction for the construction of 10 indigenous 700 MW Pressurized Heavy Water Reactors (PHWRs) to be set up in fleet mode. [Source](#)

No decision yet on longer duration contracts on power exchanges

In a recent order, Central Electricity Regulatory Commission (CERC) said that it was still premature to grant approval to longer-duration contracts sought by Indian Energy Exchange (IEX) and Power Exchange of India Ltd (PXIL) CERC, in its order dated July 27, 2021, said the matter of longer-duration contracts on power exchange will be taken up after Supreme Court delivers its judgment on three pending civil cases, concerning the issue of jurisdiction to control and regulate future contracts and derivative contracts in electricity.

CERC, in its order, was referring to pleas filed by two petitioners— Indian Energy Exchange (IEX) and Power Exchange of India (PXIL). The CERC order concluded by allowing IEX and PXIL to file fresh petitions, based on the outcome of the Supreme Court hearing on the aforementioned civil cases. On its

part, IEX was seeking introduction of additional Term Ahead contracts and Green Term Ahead contracts beyond T+11 days, on the exchange.

PXIL was seeking introduction of several future contracts including monthly contracts that could be traded on three-, two- and one-month ahead basis. The exchange also sought monthly contracts in renewable energy in the Green Term Ahead Market (GTAM). The petition also sought the introduction of Hydro Monthly Contract, among other prayers.

In a recent exclusive interview with T&D India, Prabhajit Kumar Sarkar, MD & CEO, PXIL, discussed PXIL's plans of launching a slew of new term-ahead and green-energy based products. (Read full interview) The petitions were filed on the basis of a communication from the Union power ministry, dated July 10, 2020, wherein the ministry, after considering the report of the Committee on "Efficient Regulation of Electricity Derivatives," observed that CERC and SEBI may take necessary action in their respective areas of jurisdiction, which will be subject to the outcome of the Supreme Court verdict on the three civil cases discussed above.

Though the Supreme Court verdict is pending, the representative of IEX requested that CERC may initiate the process for approval of the additional term-ahead contracts and permit IEX to stake consultations with stakeholders, in this regard. The case came up for virtual hearing on July 23, 2021. CERC, however, felt that it was premature to consider approval of these term-ahead contracts as the approval would be subject to the outcome of the decision of the Supreme Court in the three pending civil appeals. Accordingly, CERC disposed off both the petitions (of IEX and PXIL) with the liberty to petitioners to approach CERC with fresh petitions on the matter, after the decision of the Supreme Court in the above-referred civil appeals. [Source](#)

Ministry of Power Releases Detailed Plan to Revamp DISCOMs

The Ministry of Power (MoP) has issued detailed guidelines for reform-based result-linked power distribution program over the next five years. The program aims to improve the quality and the reliability of power supply to consumers through a financially sustainable and operationally efficient distribution sector. The plan is to reduce the aggregate technical and commercial (AT&C) losses across India to 12-15% and eliminate the gap between the average cost of supply and the aggregate revenue requirement by 2024-25.

According to the MoP, the outlay for the program is ₹3.03 trillion (~\$40.82 billion), with budgetary support of ₹976.31 billion (~\$13.1 billion) from the Government of India. REC Limited and Power Finance Corporation Limited will be the nodal agencies responsible for implementing the program across the country. To avail benefits under the program, states and their distribution companies (DISCOMs) must sign a tripartite agreement with the central government.

For the program, an inter-ministerial monitoring committee will be constituted under the chairmanship of the MoP's Secretary. The monitoring committee will design and approve all operational guidelines, approve all action plans and detailed project reports of states/DISCOMs, and review and monitor the program's implementation. Last month, Union Finance Minister Nirmala Sitharaman announced the 'Economic Relief from Pandemic' package and declared several sops for DISCOMs, including ₹3.03 trillion (~\$40.82 billion) outlay for reform-based result-linked power distribution program.

The program would include the Integrated Power Development Scheme (IPDS), Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY), and the Prime Minister's Development Package (PMDP)- 2015 for Jammu & Kashmir, and the savings of the gross budgetary support of roughly ₹170 billion (~\$2.28 billion).

The scope of the program is divided into two parts. Part-A covers financial support for the upgradation of the distribution infrastructure, prepaid smart metering, and system metering. Part-B covers training, capacity building, and other enabling and supporting activities.

Part-A

An eligible DISCOM must prepare an action plan to avail funding under the program. The action plan will cover measures needed to strengthen DISCOM's system, improve operational efficiency and financial viability, coupled with measures needed to improve the quality and reliability of the power supply to customers.

However, DISCOMs making losses will not have access to the funds unless their action plan carries measures needed to reduce losses, with the state government's approval. The loss-making DISCOMs must file this action plan with the central government. The funding for works – other than prepaid smart metering, distribution transformer metering, and feeder metering, including integration of the current metering system – would depend upon the DISCOM meeting the pre-qualification criteria and steps taken to reduce the losses it incurs.

The first of the action plan would include steps taken to reduce the gap between the average cost of supply and the aggregate revenue requirement and the time taken to achieve the same. The monitoring committee would finalize a result evaluation framework for each DISCOM after incorporating result parameters and trajectories. The framework would have two components – pre-qualifying criteria and result evaluation matrix. DISCOMs need to meet the pre-qualifying criteria before they can be evaluated based on the result evaluation matrix. Performance-based on the result evaluation matrix would determine the funding under the program.

The second part of the action plan will list out loss reduction strategies of the DISCOMs. Works required to reduce AT&C losses would be given priority. The program has a provision for ₹200 billion (~\$2.68 billion) for unsegregated agriculture feeders. After that, these feeders would be solarized under the Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM KUSUM) program.

The program would provide funding through gross budgetary support to install prepaid smart meters under TOTEX (CAPEX and OPEX) to attain loss reduction in electricity distribution. It would cover all electricity divisions of 500 Atal Mission for Rejuvenation and Urban Transformation cities with AT&C losses of less than 15%; all union territories(UTs); micro, small and medium enterprise and all other commercial and industrial consumers; all government offices at block level; and other areas with high losses.

DISCOMs would undertake prepaid smart metering for the rest of the consumers in a phased manner. However, smart meters would not be installed for agricultural connections. Installation of communicable system meters at feeder and distribution transformer level would be funded under TOTEX mode.

Artificial intelligence, machine learning, and blockchain technology would be leveraged to derive actionable management information systems to help DISCOMs take decisions on loss reduction, demand forecasting, asset management, time of day tariff, renewable energy integration, and other predictive analysis. Gross budgetary support would also be used at the MoP/nodal agency level to develop software for DISCOMs and power departments.

The program aims to ensure that government departments pay on time for their power consumption and DISCOMs meet their renewable purchase obligation targets. To improve accountability, consumers will receive subsidies in their accounts through direct benefit transfer. The MoP had proposed amendments to the Electricity Act 2003 in April 2020, covering the plan above to improve the health of DISCOMs, including direct benefit transfer and cost-reflective tariffs, among others.

Funding pattern

DISCOMs, state/UT power departments (excluding the private sector) are eligible for financial assistance under the program. The program will fund a flat 15% (22.5% in case of special category states) of the cost per meter over the whole project period subject to a maximum of ₹900 (~\$12) or ₹1,350 (~\$18) in case of special category states per meter.

To deploy prepaid smart meters by December 2023, states and UTs would be incentivized with 7.5% of the cost per consumer meter for the whole project or ₹450 (~\$6) per consumer meter, whichever is lower. For special category states, incentives would be 11.25% of the cost per consumer meter or ₹675 (~\$9) per consumer meter, whichever is lower. DISCOMs can claim the amount from the fund for prepaid smart meters after installation, commissioning, and demonstration after at least one prepaid billing period in the area specified by the DISCOM in the detailed project report approved by the monitoring committee.

DISCOMs will get maximum financial assistance of up to 60% for distribution system upgradation work, and DISCOMs, in special category state, will get financial assistance of up to 90% for the same. To execute the program, all northeastern states, including Sikkim, Himachal Pradesh, Uttarakhand, and UTs of Jammu and Kashmir, Ladakh, Andaman, and the Nicobar Islands, and Lakshadweep, will be included in the list of special category states/UTs.

Release of funds

DISCOMs, which initiated tenders for prepaid smart metering after January 1, 2020, will be eligible for funding if DISCOMs carry out prepaid smart metering works under TOTEX mode after obtaining the monitoring committee's approval.

To receive funds, DISCOMs need to achieve 60% of marks on the result evaluation framework. The framework will be different for every DISCOMs and may differ for each year of evaluation. The framework will be determined annually based on the cumulative and annual performance of DISCOMs.

After qualifying, DISCOMs will get a 10% advance on detailed project report approval as the first installment. Subsequent installments will be released after the annual evaluation as per the agreed result evaluation framework. The second installment of 20% of gross budgetary support will be released after the first evaluation, the third installment of 30% of gross budgetary support after the second evaluation, and the fourth installment of 40% after the third evaluation. Power Finance Corporation, REC, and other banks will provide counterpart funding. In addition, DISCOMs can also leverage counterpart funding from bilateral or multilateral funding agencies for which the central government will extend benefits of reduced government guarantee fees.

Part – B

To act as a resource center for smart grid activities in the country, the Smart Grid Knowledge Center at Power Grid Corporation of India, Manesar, will be developed with assistance from the Integrated Power Development Program. The Ministry has earmarked ₹300 million (~\$4.03 million) to expand the center's

activities with 100% gross budgetary support. The funds will be used to create applications related to artificial intelligence in the distribution sector.

The UTs will be encouraged to privatize power DISCOMs. For this, MoP will provide consultancy support to union territories as a part of the program. Earlier this month, the Supreme Court lifted the suspension order imposed by the Bombay High Court on the DISCOM privatization process. As a part of the program, the Ministry also aims to train professionals to improve their corporate governance practices, technical knowledge in advanced technology intervention areas, and new business processes.

DISCOMs have been the weakest link in the power sector and a hurdle for expanding renewables in the country. The government has been taking steps to improve the health of DISCOMs and announced the Ujwal DISCOM Assurance Yojana (UDAY) program in 2015. The aim was to bring about the financial turnaround and revival of electricity distribution companies in India by reworking the ₹4.3 trillion (~\$64 billion) in debt of DISCOMs.

Mercom had then reported that states participating in the UDAY program took over debt of ₹2.09 trillion (~\$32.5 billion) from their DISCOMs which was almost half of the ₹4.3 trillion (~\$64 billion) of debt by state DISCOMs. Years later will still see DISCOMs struggling with their finances with piling dues to power generators. As of April 2021, DISCOMs owed ₹113.34 billion (~\$1.56 billion) to renewable energy generators (excluding disputed amounts) in overdue payments across 200 pending invoices. [Source](#)

Decommissioning coal power plants older than 25 years could save Rs 37,000 cr, reveals study

Decommissioning coal power plants older than 25 years on priority could result in total savings of Rs 37,750 crore, a study by Council on Energy, Environment and Water (CEEW) said. Besides, another study by CEEW suggested that power distribution utilities or discoms in India could save up to Rs 9,000 crore (USD 1.23 billion) each year by prioritising coal power despatch based on efficiency rather than the prevailing system which prioritises based on variable costs.

According to a study released by CEEW on Monday, this move can provide much needed respite to public discoms, which last reported a loss of Rs 61,360 crore (USD 8.4 billion) in FY'19. The findings are based on the performance of 194 GW of Indian coal assets (out of a total capacity of nearly 205 GW) during the 30 months preceding the COVID-19 pandemic.

Further, the study found that prioritising efficiency-based despatch during this time could have improved coal fleet efficiency by 1.9 per cent, resulting in annual coal savings of 42 million tonnes (MT) and a commensurate reduction in greenhouse gas emissions. The CEEW study also recommends considering 30 GW of India's coal-based (power generation) capacity for accelerated decommissioning.

The proposed plants overlap with those identified for retirement in the National Electricity Plan (NEP), 2018. The study also recommends temporarily mothballing a further 20 GW of relatively new capacity that does not feature in the NEP list. Factoring in planned renewables and coal capacity, relegating these newer plants would not adversely affect supply at a system level.

In fact, it stated that relegating these inefficient plants would additionally result in a one-time saving of Rs 10,000 crore (USD 1.37 billion) on account of avoided pollution control retrofits. Further, the study advocates for a unified electricity market that treats the whole country as a single dispatch region. Its findings reinforce the Central Electricity Regulatory Commission's (CERC) proposal to move away from bilateral scheduling of generation and focus on shifting to market-based economic dispatch (MBED).

Decommissioning identified assets will usher in new investments in a more balanced generation system that does not have the sword of surplus hanging over it. A second independent study released today by the CEEW Centre for Energy Finance (CEF) separately examined 130 plants representing 95 GW of India's coal-based capacity.

It found that decommissioning coal assets older than 25 years (35 GW of total capacity) on priority could result in annual savings of Rs 7,550 crore (USD 1.03 billion) over the next 5 years. These savings would be generated through avoided annual capacity or fixed-charge payouts, primarily towards operation and maintenance costs.

Further, the savings would add up to a total of Rs 37,750 crore (USD 5.2 billion) over the plants remaining life. On the other hand, the decommissioning of these assets would cost Rs 21,500 crore (USD 2.9 billion) in payouts to debt and equity holders and an additional Rs 11,700 crore (USD 1.6 billion) in compensatory payouts to the workforce. This suggests that decommissioning will pay for itself over a five to six-year period, it added. The CEEW-CEF study does not endorse large-scale decommissioning, it found that retiring 95 GW of capacity could cost between Rs 2.3 lakh crore and 3.5 lakh crore (USD 32 to 48 billion) to pay off debt and equity holders.

Payoffs to the workforce costs could add another Rs 57,490 crore (USD 7.8 billion). The study also highlighted that freeing up capital through decommissioning will require innovative financial mechanisms. Once unlocked, these resources could be made available for India's transition to renewables. The CEEW study 'Coal Power's Trilemma: Variable Cost, Efficiency and Financial Solvency' can be accessed [here](#) and the CEEW-CEF study 'Mapping Costs for Early Coal Decommissioning in India' can be accessed [here](#). The CEEW is one of Asia's leading not-for-profit policy research institutions. [Source](#)

J&K leads in power losses in India; Delhi the best performer

Utilities in the Union territory of Jammu and Kashmir (J&K) reported the highest losses among power distribution entities in India, while some in the east and the northeast also incurred high losses, underscoring the lack of power sector reforms in these markets.

However, 15 state power distribution companies (discoms) in Andhra Pradesh, Gujarat, Tamil Nadu, Karnataka, Uttar Pradesh, West Bengal, Manipur and Madhya Pradesh narrowed their losses by more than 10% in 2019-20. Delhi clocked the lowest loss among discoms. However, the narrowing of India's gap between the cost of electricity bought (average cost of supply, or ACS) and supplied (average realizable revenue, or ARR) to 28 paise per unit in 2019-20 led to a fall in discom losses by more than a third to ₹38,000 crore from ₹61,360 crore in FY19, according to government data.

J&K recorded aggregate technical and commercial (AT&C) losses of 60.5% in the year ended March 2020. The high loss figure of J&K was followed by Nagaland (52.9%), Arunachal Pradesh (45.7%), Bihar (40.4%) and Tripura (37.9%). Also, the ACS and ARR gap is the highest in Nagaland (₹5.62 per unit), followed by Arunachal Pradesh (₹4.92 per unit), J&K (₹1.85 per unit), Meghalaya (₹1.80 per unit) and Tamil Nadu (₹1.27 per unit).

While Delhi clocked the lowest discom loss of 10.3%, it was Himachal Pradesh with the least ACS and ARR gap of 0.01 paise per unit. Discoms have traditionally been the weakest link in the electricity value chain, plagued by low collections, rise in power purchase cost, inadequate tariff hikes and subsidy disbursement, and mounting dues from government departments.

Experts said states with high discom losses reported limited power sector reforms, leading to this situation. "Utilities in Jammu and Kashmir and the North-East had limited sectoral reforms over the last two decades— around governance, network and technology capital investments, tariff reforms, structured PPP (public-private-partnership) and capacity building. Quality, reliability and customer service is significantly low, which in turn is impacting economic development. Need political will, reforms and investments to bring down financial and commercial losses," said Sambitosh Mohapatra, leader for ESG, energy utilities and resources practice, PwC India.

J&K and Ladakh are also part of the Union territory electricity privatization process, with other UTs being Chandigarh, Andaman and Nicobar Islands, Dadar and Nagar Haveli, and Daman and Diu. Meanwhile, the Electricity (Amendment) Bill, 2021, which aims to de-license power supply, allowing multiple distributors in the same area, and giving consumers the option to switch power suppliers, is slated to be introduced in the Lok Sabha during the ongoing monsoon session.

As part of the government's reform push, the cabinet committee on economic affairs (CCEA) last month approved the marquee ₹3.03 trillion power discom reform scheme that has a compulsory smart metering ecosystem component. The reforms-based result-linked power distribution sector scheme to be applicable till 2025-26 aims to reduce India's AT&C loss to 12-15% from 21.83% in 2019-20, and gradually narrow the deficit between the cost of electricity and the price at which it is supplied to 'zero' by 2024-25.

"Reduction in the ACS-ARR gap is extremely encouraging, particularly when access in rural areas has improved significantly over the last half a decade. The focus of the central government on smart metering will yield further benefits as the experience has indicated commercial loss reduction in areas where these have been deployed," said Shubhranshu Patnaik, a partner at Deloitte. "The distribution and sub-transmission grid has been in dire need of modernization, and we need a sustained focus on efficiency to create the headroom for capital investments without over-burdening the consumers."

Some experts believe the discoms' financial health weakened last fiscal amid the pandemic with the demand load shifting to homes, resulting in lower realizations. This has since recovered, with India's peak power demand recording a high of 200-gigawatt (GW). India has an installed power generation capacity of 383.373GW. [Source](#)

India plans more power islands to counter cyber, terror threat

India is discussing a plan to create so-called power islanding systems in several cities to protect critical infrastructure from potential attacks on the electricity grid, power minister Raj Kumar Singh said. Cities including Bengaluru, known as India's Silicon Valley, and Jamnagar, which has two of India's largest oil refineries, are among cities being assessed for an islanding system, Singh told lawmakers in parliament Thursday. Existing systems in cities such as New Delhi and Mumbai are being revamped, he said.

The plan follows a major power outage in India's financial hub Mumbai last year that brought the city to a halt and prompted speculation about a cyber attack. The year before, the country's nuclear power monopoly reported computer systems at one of its generation plants had been attacked by malware. Power grids the world over are increasingly digitalized, leaving them vulnerable to such attacks.

Islanding systems feature generation capacity and can isolate automatically from the main grid in the event of an outage. For the new systems, provinces need to submit proposals for setting up generation and storage capacities, Singh said in his written comments Thursday.

The strategy was questioned in some quarters.

"Islanding entire cities is a very 20th-century idea," said Reji Pillai, president of the India Smart Grid Forum, which advises the government and utilities on smart grid technologies. "Where's the space in Bengaluru for setting up new generation plants, and without adequate generation capacity within the islanded area what is the purpose of islanding?"

Instead, Pillai recommended smart microgrids for isolating smaller areas, such as commercial and industrial complexes, shopping malls, airports, defense units, railway stations and hospitals. The system would be connected to the main network and could isolate automatically in the event of an outage. The microgrids would run on a mix of battery and rooftop solar power, he said. [Source](#)

Power availability witnesses marked rise across the Country

As per independent surveys, the availability of power in rural areas has gone up from an average of 12 hours in 2015-16 to 20.6 hours in the year 2020; and in the urban areas, the availability of power has gone up to 22 hours. In May, 2021, the average availability of power in the rural areas was 22.17 hours, and in urban areas it was 23.33 hours. Many States and UTs have reported 24x7 power supply other than the planned outages and interruptions due to unforeseen events.

Electricity is a concurrent subject. Supply/distribution of electricity to consumers is done by the respective State Governments and/or State Power Utilities. Government of India helps the States through its various schemes including Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS) and Ujjwal Discom Assurance Yojana (UDAY) to help them to achieve the objective of providing uninterrupted power supply to all households.

There is no shortage of electricity in the country. Against a peak demand of 200 Gigawatts (GWs), the established generation capacity is 382 GWs. Interruptions in the supply of electricity is generally on account of constraints in distribution network, or financial constraints with some Distribution Companies not having the money to pay for power. [Source](#)

OPINION: Understanding India's latest record in peak power demand

On 7 July 2021 at around noon, India's instantaneous power demand touched a historic high of 200 gigawatts (GW), beating the previous all-time high of 197 GW which had been reached only the day before. These two consecutive days of record-breaking peak demand marked a sharp increase from the high of 190 GW in financial year (FY) 2020-21, seen just six months ago. This spike in India's instantaneous demand, especially peaking during the day instead of in the evening, has got the country's power industry thinking about India's changing daily load profile and utilizing solar generation to meet day-time peak demands.

The strong electricity generation seen in the beginning of 2021-22 dipped in May and June when many states were in lockdown due to the second wave of COVID-19. As the restrictions eased towards the end of June, electricity generation picked up and then saw a strong recovery in July. The following figure compares year-to-day electricity demand with that of 2019 (ignoring the anomalously low demand in 2020 due to the economic lockdown).

In our view, the record high demand – aggregate as well as peak – on 7 July could be strongly linked to high temperatures in North India increasing the use of air conditioners, a spurt of commercial activity and the catching up of pent-up industrial demand following the lifting of lockdowns. In fact, on 7 July the

demand in North India reached 99.4% of the peak demand (75GW) it had set five days earlier on 2 July. The northern states of Haryana, Delhi, and Uttar Pradesh, and the north-eastern states of Sikkim and Manipur all had record energy consumption levels that day.

Rising power demand will not be a concern for keeping India's lights on. India's peak electricity record was 54% (~70GW) higher than in FY2011-12, implying a CAGR of 4.5% in the last decade. While the recent record peak in instantaneous demand might appear to be sudden and sharp, we should be wary of overestimating its future growth.

The Central Electricity Authority (CEA) seems to have overestimated the peak electricity demand already. Their optimum generation capacity mix for 2030 report, published pre-COVID, projected that peak instantaneous demand would reach ~226GW in the current fiscal year– that's ~26GW more than the 200GW peak seen this month. Also, they forecast much higher growth going forward. They forecast peak electricity demand to touch ~340GW by the end of 2030. This implies 6.9% CAGR, compared to 4.5% last decade. If India's peak demand will continue its strong growth trajectory of the last decade, it will remain in the range of 285-300GW by the end of this decade.

Further, a couple of other aspects will materially impact the peak demand. We believe that deflationary renewable energy tariffs will shave off some in-front-of-the-meter demand. And as commercial and industrial (C&I) customers increasingly look to serve their loads through renewable energy power purchase agreements (PPAs) via the open access mechanism, a significant load will shift from the grid to behind the meter.

Also, interestingly, all the record peak demands seen this year came during the day – a significant shift from peak hours previously seen during the evenings. With the load profile now changing and peaks occurring during day hours, adding more solar will be crucial. Ultralow-cost solar power generation, which peaks during the afternoon hours of 12-3pm, can absorb the growing daytime air conditioning load. Overestimating demand growth leads to stranded coal power assets. Overestimating power demand growth has led to India building more coal power capacity than it needs and the consistent underutilisation of its coal power fleet (with capacity factors of below 60% for the last 4 years). India must not repeat this mistake. There is already 33 GW of new coal power plants that are under construction and will mostly come online in the next 36 months. The challenge of India's growing daily peak demand does not require investment in excess baseload thermal capacity. Instead, the electricity system needs flexible and dynamic generation solutions in the form of battery storage, pumped hydro storage, peaking gas-fired capacity and flexible operation of its existing coal fleet.

Also, this challenge needs to be addressed proactively from the demand side, not just from the supply side. Demand response management will play a key role in keeping instantaneous demand in check. A time-of-day (ToD) pricing mechanism, which provides price signals to promote usage of power when the electricity demand is typically lower and could incentivise consumers to shift their loads to periods of low tariffs. ToD mechanism can also incentivise investment into flexible solutions that could dispatch firm power during the time of peak demand. Ultimately, India could serve its growing power needs by modernising its electricity system to integrate the 450GW of variable renewable energy capacity targeted by 2030. [Source](#)

PFC and REC extended special long-term transition loans at concessional rates under Liquidity Infusion Scheme power-sector-news

Government of India launched the Pradhan Mantri Sahaj Bijli Har Ghar Yojana – Saubhagya in October, 2017 with the objective to achieve universal household electrification for providing electricity connections

to all willing un-electrified households in rural areas and all willing poor households in urban areas in the country by March 2019. All households were reported electrified by the States, except 18,734 households in Left Wing Extremists (LWE) affected areas of Chhattisgarh as on 31.03.2019.

Subsequently, seven States namely Assam, Chhattisgarh, Jharkhand, Karnataka, Manipur, Rajasthan and Uttar Pradesh had reported that around 19.09 lakh un-electrified households, identified before 31.03.2019, which were unwilling earlier but have expressed willingness to get electricity connection. All these seven States have reported 100% household's electrification as on 31.03.2021. A total of 2.817 crore households have been electrified since the launch of Saubhagya, up to 31.03.2021.

To mitigate the liquidity problems in power sector due to low power consumption during the lockdown imposed due to COVID-19, Government of India announced a Liquidity Infusion Scheme as part of Aatma Nirbhar Bharat Abhiyan on 13th May 2020. Under the scheme, Power Finance Corporation (PFC) Ltd. and REC Ltd. extended special long-term transition loans at concessional rates to Power Distribution Companies (DISCOMs) to clear their outstanding dues towards purchase of power from Central Public Sector Undertaking (CPSU) Generation (Genco) & Transmission companies (Transcos), Independent Power Producers (IPPs) and Renewable Energy (RE) generators, as existed on 30.06.2020. As on 30.06.2021, REC & PFC have sanctioned Rs.1,35,537 crore and disbursed Rs.79,678 crore respectively to States under Liquidity Infusion Scheme.

This information was given by Union Minister for Power and New and Renewable Energy , Shri R.K. Singh in a written reply in Rajya Sabha Today. [Source](#)

Delicensing power distribution on govt's agenda

In a major reform initiative, the government proposes to delicense the power distribution sector allowing competition in the supply of last-mile electricity connectivity to consumers. The proposed changes will be part of the New Electricity Amendment Bill which the government proposes to introduce and pass during the coming monsoon session of Parliament. The bill will replace Electricity Act, 2003 which earlier delicensed power generation sector.

Official sources said that the draft bill has removed the wording 'distribution licensee'. What this will do is maintain the status quo of existing distribution entities but will now allow entry of other participants in a distribution area if it is able to manage infrastructure for supplying electricity to consumers.

In her Budget 2021-22 speech, Finance Minister Nirmala Sitharaman had said that a framework will be put in place to give consumers alternatives to choose from among more than one distribution company. She had said that there is a need to provide choice to consumers by promoting competition and breaking monopolies existing in the power distribution sector.

As per the plan, the delicensing will provide for infrastructure sharing by existing players. This will give an option to monetise assets by existing players while allowing new players to strengthen infrastructure and start supplying electricity to consumers on demand. The changes will allow operation of more than one distributor in a supply area giving the option to consumers to choose electricity suppliers based on competitive tariffs and assured supplies.

The Ministry of Power earlier wanted to introduce a provision for separation of carriage and content operation in the distribution sector as part of a plan to break the monopoly of discoms. Under this, while carriage or transmission aspect of distribution operation would have been retained with existing discoms, content or actual supply of electricity to households and others would have been freed for competition

offering choice to customers to choose their electricity supplier. However, in the absence of requisite support from states to the move, the proposal was dropped.

What delicensing will do is to allow multiple players to bid for supplying electricity in a distribution area. Bids could be invited by states based on rules framed by them, guided by models to be developed by the Centre. Permission to distribute would only be given if a player brings along with the proposal a plan on providing last-mile connectivity and other infrastructure support. The government is looking at various schemes to reform the power sector. As part of a recent Covid related stimulus measure, it introduced a new Rs 3.03 lakh crore reform-based result-oriented power distribution scheme. This has brought various existing schemes in the power sector under one umbrella. With regard to the initiation of the direct benefit transfer (DBT) scheme in the power sector, sources said that the reform measure could be undertaken at the state level while the Electricity Act will wait for the competition to settle into the distribution sector first before proposing the changes. [Source](#)

Towards more efficient power generation

Beyond financial savings, MBED could herald more efficient power generation.

As MBED prioritizes the dispatch of the cheapest generators across the country, it can unlock the dispatch of any existing low-cost, underutilized generators. The proposed market mechanism also incentivizes more expensive generators to optimize their cost efficiency to offer their generation to the market at the least cost.

MBED can also enable pit-head (close to mines) coal plants to run at higher capacity due to superior economics, which will help reduce the cost and requirement of transporting coal to generators that are distant from mines.

Power companies in Rajasthan, Gujarat and Maharashtra pay close to INR 5,000 crore a year to transport coal from Chhattisgarh. With MBED, close to 7,000 MW of idle thermal generation capacity can be enabled in Chhattisgarh. From a larger economic standpoint, this also entails efficiency savings, as transporting electrons will be more efficient than transporting coal.

Accelerate renewable deployment

In the current siloed approach of scheduling, states rich in renewable energy struggle with grid balancing within their state boundaries due to the variability of renewable generation and are forced to curtail unexpected surplus. Meanwhile, regions with limited renewable potential are struggling to meet their Renewable Purchase Obligations (RPOs). This problem is bound to worsen with the expected growth of renewable energy. A centralized marketplace established by MBED will expand the coverage of balancing areas from a state level to a national level, facilitating increased renewable integration and reducing the risks of renewable curtailment.

A larger balancing area enabled by MBED would transfer the responsibility of balancing the grid from the host state to the state procuring renewable generation. The state would have to consider the supply of renewables in its schedule and manage its conventional generators to balance the grid. A wider balancing area would also reduce solar and wind variability due to geographic diversity. Hence, MBED can unlock regional integration and offset the disparity between renewables rich states and those lacking in renewable potential.

Lingering challenges

Given the significant overhaul needed to implement MBED, the Ministry of Power has proposed rolling out the first phase of MBED in April 2022 with the fleet of NTPC thermal stations. This first phase would help identify the challenges faced by discoms and generators before a nationwide rollout. Few lingering challenges can be foreseen as MBED becomes universal.

First, sector governance hurdles may emerge that could challenge the transition. Of chief concern are state generating units, many of them coal-based, which run the risk of idling, given that most plants are older and might not be able to compete based on their variable costs.

Second, the larger question of idle plants also raises the issue of continued capacity payment (fixed charges for having the plant online), given that MBED bidding is based purely on variable cost. This has dual concerns for discom finances going forward and for managing incentives for fresh capacity, given the poor track record discoms have had as financially reliable customers. There will be policy questions on reducing this capacity payment for existing plants while also reducing the financial risk for future plants. Lastly, as renewable energy continues to outcompete coal, the future role of coal will become more challenging under MBED. If the technical capabilities of coal plants improve and grid services are properly rewarded (such as envisaged under the draft ancillary services regulation), there is still room for coal as a flexibility and grid support asset. But even that role will be challenged as the price of battery storage gradually drops. While challenges exist, the promises of MBED are compelling. It stands to herald the much-needed transformation of India's electricity market while becoming a crucial enabler for the clean energy transition. [Source](#)

15 discoms reduce losses by more than 10%

NEW DELHI: India's state-owned electricity distribution companies (discoms) seem to be turning a corner, with 15 discoms of Andhra Pradesh, Gujarat, Tamil Nadu, Karnataka, Uttar Pradesh, West Bengal, Manipur, and Madhya Pradesh reducing their losses by more than 10% in 2019-20. According to the Ninth Annual Integrated Rating for State Power Distribution Utilities of 41 discoms spread across 22 states released on Friday, "Fifteen utilities have been able to achieve more than 10% reduction in AT&C (aggregate technical and commercial) loss parameter."

"Average AT&C loss level of rated discoms has improved to 21.16% in FY20 compared with 21.85% in FY19," the ratings report said. This assumes significance as discoms have been the weakest link in the electricity value chain, plagued by low collection, increase in power purchase cost, inadequate tariff hikes and subsidy disbursement, and mounting dues from government departments. However, experts believe the financial health of discoms has deteriorated in 2020-21 during the coronavirus pandemic, as electricity demand load has shifted to homes, resulting in lower realizations.

This comes against the backdrop of the Cabinet Committee on Economic Affairs last month approving the marquee ₹3.03 trillion power discom reform scheme, wherein the Centre's share will be ₹97,631 crore. The funds will be released to discoms subject to them meeting reform-related milestones.

The ambitious scheme aims to bring down India's average aggregate technical and commercial loss from the present level of at 21.4%, to to 12-15% and gradually narrow the deficit between the cost of electricity and the price at which it is supplied to "zero" by 2024-25. In addition to the discom losses dropping sharply by more than a third to ₹38,000 crore in 2019-20 from ₹61,360 crore in FY19, the gap between the cost of electricity bought (ACS or average cost of supply) and supplied (ARR or average realizable revenue) has also come down to 38 paise per unit in FY20 from 42 paise in FY19.

"The average cost coverage has improved to 0.87x during the ninth rating exercise as compared to 0.86x in the eighth rating exercise," according to the ratings report.

"Overall, 16 power distribution entities (out of a total of 41) have shown improvement in their cost coverage ratios. Out of these, 6 discoms have shown improvement of more than 10% in their cost coverage ratio," the report added. The annual exercise for state power discoms is aimed at helping banks and financial institutions assess risk while lending to the distribution utilities. The discoms dues to generation companies (gencos) by end May was to the tune of ₹70,153 crore.

"Sixteen discoms have positive Debt to Net Worth ratio (D:E), of which ten have D:E of less than 2.0x indicating sound support from the state governments," the report said. Also, India's electricity demand is picking up after the dip during the second wave of the coronavirus pandemic, with the country's peak power demand crossing 200-gigawatt (GW) mark.

"In terms of regulatory environment, tariff order for FY21 has been issued for thirty-six discoms, while the same has not been issued for five discoms," the report said and added, "In terms of availability of audited accounts, 35 discoms have submitted audited annual accounts, while six discoms have submitted provisional accounts."

These rankings come at time when the Union cabinet may shortly consider the Electricity (Amendment) Bill, 2021, that aims to de-license power supply, allowing multiple distributors in the same area and giving consumers the option to switch power suppliers as reported by Mint on Friday. According to the Lok Sabha bulletin, the bill is in the tentative list of government's legislative and financial business that is expected to be taken up during the monsoon session of Parliament that begins on Monday. [Source](#)

9th Annual Survey of Discoms: Five out of 41 secure "A+" rating, Gujarat tops

Five out of the 41 state government-owned power distribution companies have scored the best "A+" rating, as per the "9th Annual Integrated Rating of State Power Distribution Utilities". This report, coordinated by Power Finance Corporation (PFC) with the participation of state power discoms, was released by the Union Power Minister, R.K. Singh, on July 16, 2021. The discoms were rated on the basis of their performance in FY20 (April 1, 2019 to March 31, 2020).

Five out of the 41 discoms under study secured the highest possible "A+" grade with an overall score of between 80 and 100 (on a scale of 100). [See table]

The "A+" grade indicates "very high operational and financial performance capability"

Ratings Summary of 41 discoms surveyed			
Grade	No. of discoms	Score Range (Scale of 100)	OFPC*
A+	5	80 to 100	Very High
A	3	65 to 80	High
B+	10	50 to 65	Moderate
B	6	35 to 50	Below Average
C+	9	20 to 35	Low
C	8	0 to 20	Very Low
<i>*Operational & Financial Performance Capability</i>			

The modal class was “B+” with the highest number of discoms, at ten, scoring this grade. This grade indicates moderate operational and financial performance capability.

Seventeen or around 41 per cent of the discoms surveyed had either low or very low operational and financial performance capability, scoring either “C+” or “C”.

All the four state discoms of Gujarat secured “A+” grade. The only other discom to score this maximum grade was Dakshin Haryana Bijli Vitran Nigam Ltd. The only other state discom in Haryana, Uttar Haryana Bijli Vitran Nigam Ltd, earned “A” grade.

The lone state discoms of Punjab and Maharashtra—Punjab State Power Corporation Ltd and Maharashtra State Electricity Distribution Company Ltd, respectively—also secured “A” grade.

Karnataka has the maximum number of states discoms, standing at five. While four of these scored “B+”, the fifth scored “B”.

Among the eight discoms at the bottom of the table (with grade “C”) were two discoms of Rajasthan, one of Andhra Pradesh and the lone discom of the states of Meghalaya, Manipur, Tripura, Jharkhand and Tamil Nadu.

Uttar Gujarat Vij Company Ltd (UGVCL), the best-rated discom, had satisfactory AT&C losses of 6.88 per cent in FY20. Among key concerns included in the rating report was: “absolute subsidy dependence for the state remains high, given the subsidized nature of tariff particularly towards agricultural consumers.”

Rating Methodology

Broadly, operational and reform parameters had 43 per cent weight in the overall score of discoms. External parameters (including government support) accounted for 15 per cent. Financial parameters constituted the remaining 42 per cent of the overall weight.

Background

Ministry of Power had formulated an Integrated Rating Methodology in July 2012 for evaluating performance of state power discoms on a range of parameters covering operational, financial, regulatory and reform parameters. The rating exercise is carried out on annual basis and presently covers 41 state distribution utilities spread across 22 states. State power/energy departments and private discoms are however not covered under the integrated rating exercise.

ICRA and CARE are the designated credit rating agencies and have been assigned 21 and 20 utilities respectively. MoP has mandated Power Finance Corporation (PFC) to co-ordinate the rating exercise. So far, nine integrated rating exercises covering FY12, FY3, FY4, FY15, FY6, FY17, FY8, FY19 and FY20 — the latest being the subject of this story — have been completed. The immediately preceding 8th integrated ratings were released on December 9, 2020. [Source](#)

Discoms' outstanding dues to gencos fall 15.25% to Rs 82,305 cr in May

Total outstanding dues owed by electricity distribution utilities or discoms to power producers fell 15.25 per cent to Rs 82,305 crore in May 2021 from a year ago. Distribution companies (discoms) owed a total Rs 97,111 crore to power generation firms in May 2020, according to portal PRAAPTI (Payment Ratification And Analysis in Power procurement for bringing Transparency in Invoicing of generators). The outstanding dues of discoms towards electricity producers have been increasing year-on-year as well as month-on-month for years showing perennial stress in the power sector till February this year. It has started tapering off from March 2021.

Total dues in May increased sequentially compared to Rs 77,203 crore in April this year. The PRAAPTI portal was launched in May 2018 to bring in transparency in power purchase transactions between generators and discoms. In May 2021, the total overdue amount, which was not cleared even after 45 days of grace period offered by generators, stood at Rs 68,762 crore as against Rs 84,691 crore in the same month a year ago.

The overdue amount stood at Rs 63,050 crore in April this year. Power producers give 45 days to discoms to pay bills for electricity supply. After that, outstanding dues become overdue and generators charge penal interest on that in most cases. To give relief to power generation companies (gencos), the Centre enforced a payment security mechanism from August 1, 2019. Under this mechanism, discoms are required to open letters of credit for getting power supply.

The Centre had also given some breathers to discoms for paying dues to gencos in view of the COVID-19-induced lockdown. The government had also waived penal charges for late payment of dues. In May, the government announced Rs 90,000 crore liquidity infusion for discoms under which these utilities would get loans at economical rates from Power Finance Corporation (PFC) and REC Ltd. This was a government initiative to help gencos remain afloat.

Later, the liquidity infusion package was increased to Rs 1.2 lakh crore and further to Rs 1.35 lakh crore. Under the liquidity package, over Rs 80,000 crore has been disbursed. Discoms in Rajasthan, Uttar Pradesh, Jammu & Kashmir, Telangana, Andhra Pradesh, Karnataka, Maharashtra, Jharkhand and Tamil Nadu account for the major portion of dues to gencos, the data showed.

Overdue of independent power producers amounted to 35.86 per cent of the total overdue of Rs 68,762 crore of discoms in May, 2021. The proportion of central PSU gencos in the overdue was 47.59 per cent. Among the central public sector gencos, NTPC alone has an overdue amount of Rs 8,297.29 crore on

discoms, followed by NLC India at Rs 3,918.61 crore, Damodar Valley Corporation at Rs 3,847.90 crore, NHPC at Rs 2,432.65 crore and THDC India at Rs 1,130.33 crore in May 2021.

Among private generators, discoms owe the highest overdue of Rs 17,338.48 crore to Adani Power followed by SEMB (Sembcorp) at Rs 2,420.53 crore, IL&FS Tamil Nadu Power Company at Rs 2,004.53 crore, Jindal Steel and Power at Rs 1,659.61 crore and Bajaj Group-owned Lalitpur Power Generation Company at Rs 1,608.10 crore and in the month under review. The overdue of non-conventional energy producers like solar and wind stood at Rs 11,373.88 crore in May, 2021. [Source](#)

Power ministry seeks coal cess waiver for FGD power plants

The power ministry has sought the waiver of Rs 400 GST compensation cess on coal supplied to thermal power projects that implement emission control equipment to offset the increase in power tariff to end consumers due to implementation of emission control equipment as per the directions of the environment ministry. The Clean Energy Cess was started in 2010 to promote clean energy technologies but later subsumed in GST compensation. With the introduction of the Goods and Service Tax (GST) in July 2017, the Clean Energy Cess was abolished and a new cess on coal production at Rs 400 per tonne, called the GST Compensation Cess, is being levied.

“The power ministry has proposed to the ministry of finance that they might consider exempting the cess on the power plants that are in compliance with the FGD (Flue-gas desulfurisation) norms. If FGD norms are complied, the power cost will go up by 35 paise. FGD should not be penalising power companies, distribution companies or the consumers,” a senior government official said.

Power regulator Central Electricity Regulatory Commission (CERC) had earlier allowed recovery of cost on emission control equipment from electricity charges over the life of the project. In April last year, CERC, in an order in the case of Reliance Power’s Sasan Power Ltd, approved provisional capital costs related to installation of FGD systems.

The power ministry has in its recent letter to the finance ministry proposed that waiver of coal cess can be provided to power plants from the date of commissioning of FGD equipment starting July next year, the official said. “The move will increase competitiveness of projects and also comfort lenders in financing the equipment,” he said. In April the environment ministry extended timelines for complying with emission norms by coal-based power plants by three to five years, and fixed penalties for non-compliance as against the earlier mandate of closure. Under the previous timeline, all coal-based power plants were to comply by December 2022 or face closure.

All thermal power plants have now been categorised into three groups—category A are plants within the 10-kilometre radius of the National Capital region and cities with a million plus population; category B plants are in the 10-kilometre radius of critically polluted areas or non-attainment cities; the remaining power plants are category C. Power plants in category A can install the emission control equipment by December 31, 2022. As per the previous timeline, power plants in NCR were required to be in compliance by December 2019. The units in category B have till December 31, 2023 to comply and those in category C till December 31, 2024. [Source](#)

Transmission charges payable by DICs for the billing month of Aug'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)			
Sl. No.	State	Region	STOA rate (paise/kWh)
1	Delhi	NR	47.80
2	UP	NR	51.51
3	Punjab	NR	52.04
4	Haryana	NR	68.16
5	Chandigarh	NR	40.56
6	Rajasthan	NR	56.32
7	HP	NR	38.04
8	J&K	NR	40.64
9	Uttarakhand	NR	52.91
10	Gujarat	WR	40.38
11	Madhya Pradesh	WR	41.67
12	Maharastra	WR	45.65
13	Chattisgarh	WR	35.20
14	Goa	WR	42.90
15	Daman Diu	WR	41.12
16	Dadra Nagar Haveli	WR	44.63
17	Andhra Pradesh	SR	50.10
18	Telangana	SR	37.78
19	Tamil Nadu	SR	40.02
20	Kerala	SR	39.55
21	Karnataka	SR	40.86
22	Pondicherry	SR	37.00
23	Goa-SR	SR	33.81
24	West Bengal	ER	43.08
25	Odisha	ER	46.18

26	Bihar	ER	48.32
27	Jharkhand	ER	46.52
28	Sikkim	ER	36.32
29	DVC	ER	44.99
30	Bangladesh	ER	35.05
31	Arunachal Pradesh	NER	40.76
32	Assam	NER	41.78
33	Manipur	NER	37.53
34	Meghalaya	NER	35.54
35	Mizoram	NER	38.28
36	Nagaland	NER	58.82
37	Tripura	NER	44.25

[Click source for other region POC charges. \(Source- CERC\)](#)

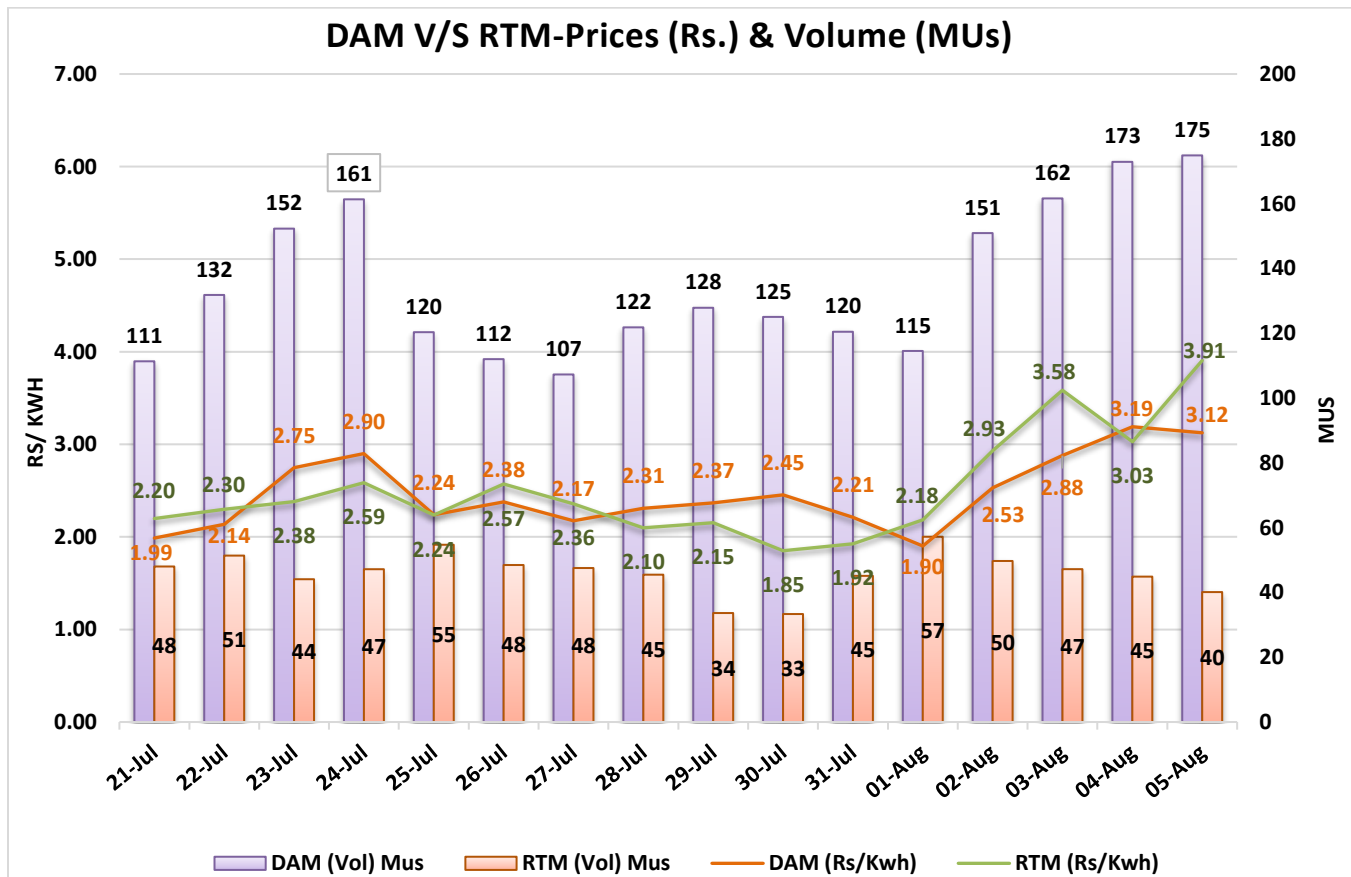
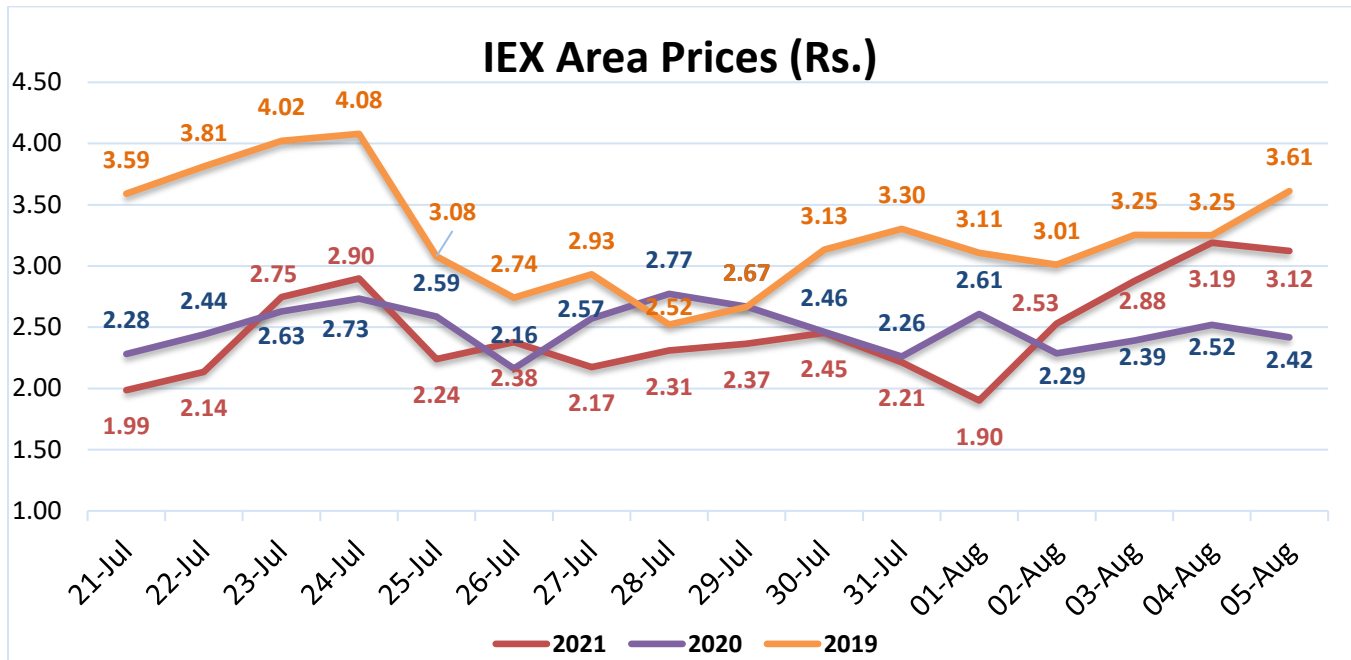
Bilateral Power Market

Result of various tenders:-

PSPCL/Short/21-22/RA/7				
Sl. No.	Quantity(MW)	Period	Time Block (Hrs.)	Price (Rs./KWh)
1	600	01.06.2021 to 09.06.2021	00:00 to 24:00	3.52
2	1800	10.06.2021 to 15.06.2021	00:00 to 24:00	3.64 - 4.7
3	600	16.06.2021 to 30.06.2021	00:00 to 24:00	3.61 - 4.39
4	600	01.07.2021 to 15.07.2021	00:00 to 24:00	3.87 - 3.88
5	600	16.07.2021 to 31.07.2021	00:00 to 24:00	3.57 - 3.66
6	600	01.08.2021 to 15.08.2021	00:00 to 24:00	3.89
7	600	16.08.2021 to 31.08.2021	00:00 to 24:00	3.31 - 3.39
8	600	01.09.2021 to 15.09.2021	00:00 to 24:00	3.2 - 3.39
9	600	16.09.2021 to 30.09.2021	00:00 to 24:00	3.2 - 3.39
PSPCL/Short/21-22/RA/9				
Sl. No.	Quantity(MW)	Period	Time Block (Hrs.)	Price (Rs./KWh)
1	600	13.05.2021 to 31.05.2021	00:00 to 24:00	3.4
PFC Consulting Limited/Short/21-22/RA/8				
Sl. No.	Quantity(MW)	Period	Time Block (Hrs.)	Price (Rs./KWh)
1	14	01.07.2021 to 30.06.2022	00:00 to 24:00	3.18

[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	129.97
Coal, 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	71.80
Diesel	New York Harbor Ultra-Low Sulphur No 2 Diesel Spot Price	USD/Gallon	2.14
Heating Oil	New York Harbor Conventional Gasoline Regular Spot Price FOB	USD/Gallon	1.98
Natural Gas	Natural Gas, Natural Gas spot price at the Henry Hub terminal in Louisiana, US Dollars per Million Metric British Thermal Unit	USD/MMBTU	4.089
Jet Fuel	U.S. Gulf Coast Kerosene-Type Jet Fuel Spot Price FOB	USD/Gallon	1.89

(Source: ICMW METI Bloomberg Index Mundi)

Weather (Estimated for next fortnight)

City	Max Temp	Min Temp	Precipitation (Probability)
DELHI	35	27	19%
MUMBAI	31	26	64%
KOLKATA	32	27	59%
CHENNAI	36	26	40%

(Source - Accuweather)

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