

POWER MARKET CAPSULE-203rd Edition

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TPTCL'S E-NEWS LETTER



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Tata Power Trading Company Limited (TPTCL)



Power Market News

India's Power Consumption Grows 3.8 Pc To 128.38 bn Units in July

India's power consumption grew marginally by 3.8 per cent year-on-year to 128.38 billion units (BU) in July amid widespread rains in the country, according to power ministry data. Power consumption in July last year was recorded at 123.72 BU, which was higher than 112.14 BU in the same month of 2020. However, the peak power demand met, which is the highest supply in a day, during July dipped to 190.38 GW. The peak power supply stood at 200.53 GW in July 2021 and 170.40 GW in July 2020.

Power consumption and demand were affected in July 2020 due to the staggering impact of the imposition of lockdown restrictions for curbing the spread of the deadly coronavirus. The consumption in July 2019 (pre-pandemic period) was 116.48 billion units.

According to experts, power consumption and demand remained subdued due to widespread rains across the country in July with the onset of the Monsoon. They said rains in July brought relief from the unbearable high temperature experienced in June this year, especially in the northern states. Power consumption, as well as demand, would grow steadily in the coming months in view of almost normal economic activities in the country. [Source](#)

Clear your power dues, PM Modi reminds states; here is what they owe

Prime Minister Narendra Modi urged state governments to pay the money they owe to power distribution companies (discoms) and generating companies (gencos). He added that the outstanding dues that stretch over several months threaten the financial stability of these discoms and gencos. According to the data from the power ministry, the states and the union territories (UTs) together owe over Rs 1 trillion to the gencos as of March 31, 2022. The total money owed to the discoms stands at Rs 1.3 trillion.

The delay in payments causes a shortfall in revenue for the power companies. The money that could have been used in upgrading the infrastructure of the distribution channel to reduce the wastage can then only be used to cover the operational costs. In India, the average transmission losses stand at over 20 per cent compared to 5-8 per cent in developed countries.

The non-availability of funds also reduces the amount of electricity produced for consumption. In 2022, several states witnessed long power cuts at the peak of the summers, including Uttar Pradesh, Maharashtra, Telangana, Tamil Nadu and Andhra Pradesh. Also, on June 9, 2022, the power demand in the country touched an all-time high of 2,10,793 megawatts (MW). Due to limited infrastructure, the gencos were unable to match the demand, forcing the discoms to cut the supply for long hours in several regions.

How much do states and UTs owe to gencos and discoms?

According to data from the power ministry, Maharashtra owes a maximum of Rs 21,500 crore to the gencos. Tamil Nadu follows in second place with Rs 20,990 crore of dues to gencos, while Andhra Pradesh owes the third highest, Rs 10,109 crore. [Source](#)

Centre weighs new segment on power bourses for costly projects

The government is considering a new market segment on power exchanges that would allow the sale of electricity at prices higher than the general ceiling to allow high-cost projects such as gas or imported coal-based plants to sell power. Many of these high-cost power plants are currently not operational as they do not have buyers.

Spot electricity prices on power exchanges are capped at ₹12 per unit. The proposal seeks to ensure increased electricity availability while also reviving these non-operational projects. Nearly 24 GW of gas-based capacity and 17 GW of imported coal-based capacity is either idle or under-utilised due to a lack of buyers since per unit prices are high because of steep fuel costs. "The proposed high price day ahead market segment will enable high-cost power plants to be made available during the high demand period," said a power ministry proposal seeking stakeholder comments. "Only such buyers who are in deficit and can afford to pay high price will be able to participate in this segment." [Source](#)

Power projects worth Rs 2,723 crore launched in Uttar Pradesh

As many as 12 power substations and transmission centres were inaugurated in Uttar Pradesh, while foundation stones were laid for another five on the occasion of Electricity Festival and Energy Day held as part of the Ujjwal Bharat, Ujjwal Bhavishya.

The projects were inaugurated in the presence of Chief Minister Yogi Adityanath. The total cost of the projects is estimated at Rs 2723.20 crore. Congratulating people on occasion, CM Yogi Adityanath said that under the visionary leadership of Prime Minister Narendra Modi, Uttar Pradesh has made a giant leap in power production and supply.

He said, "As many as 1.21 lakh villages, which have remained without electricity since independence, have been electrified in the last five years, while 1.43 crore free electricity connections have also been given to the needy people in the state under Saubhagya Yojana in the last five years." The chief minister further said that during previous governments there were four "VIP districts" in UP that received power while the rest 71 districts were denied electricity and the people there were left to struggle with darkness. "But, today there are no VIP districts as every district is a VIP district. In the last five years, people have been provided electricity without any discrimination. This is what we call democracy," the CM pointed out.

According to the CM, the power supply is currently available for 23 to 24 hours in district headquarters, for 20-22 hours in the tehsil headquarters and for 16 to 18 hours in villages. He added, "Our aim in the next five years is to provide electricity to every household in the state to help achieve the goal of Ujjwal Bharat in the next 25 years as the country celebrates Amrit Mahotsava."

CM Yogi also urged the Uttar Pradesh Power Corporation officials to strengthen the billing and connection system in order to make the energy department self-reliant. The newly inaugurated transmission/distribution substations will directly benefit people of Rasra (Ballia), Babina (Jhansi), Malwan (Fatehpur), Ayodhya, Azizpur (Shahjahanpur), Dulhipar (Sant Kabirnagar), Mandhata (Pratapgarh), Bilochpura (Bagpat), Mirganj (Bareilly), Kailah (Chitrakoot) and Baghpat.

Foundation stone was laid for transmission/distribution substations of different capacities at Knowledge Park-5, Ecotech-8 & 10 and Jalpura, Greater Noida (Gautam Budh Nagar), Shohratgarh (Siddharthnagar). [Source](#)

Power ministry asks states/IPPs to decide on coal blending, NTPC not to place more indents

The Centre has eased imported coal blending norms for domestic coal-based power projects asking state-run and private plants to decide on their own, while directing the central PSUs to not place further import indents.

"Coal stock position of state gencos now vary significantly. Many states have stocks of more than 50% of normative levels whereas many others still have stocks near critical level. In view of the above, it has

been decide that now onwards, states/IPPs and ministry of coal may decide the blending percentage after assessing the availability of domestic coal supplies," an order issued by the Union Power Ministry said.

After taking into account the stock level in plants of NTPC and DVC, it has been decided to direct NTPC and DVC to bring down the blending percentage to 5% at genco level and keep monitoring the situation closely, another order to te CPSUs said. If stocks start depleting at any time, the blending percentage could be reviewed again, it said. The two companies have been asked to utilise the existing imported coal at their plants and ports and not to place further indents. [Source](#)

Explained: Why Energy Conservation Bill is crucial for India? 4 key points

The Centre introduced the Energy Conservation Bill at the Lok Sabha that intends to put in place provisions to make the use of clean energy, including green hydrogen, mandatory and to establish carbon markets. Union power minister Raj Kumar Singh, while introducing the bill, pointed out the bill seeks to mandate use of non-fossil sources and bring large residential buildings within the ambit of energy conservation regime. A legal framework "will help in the reduction of fossil fuel-based energy consumption and resultant carbon emissions to the atmosphere," the minister said.

What are the key suggestions of the Energy Conservation Bill?

Promote usage of renewable energy: One of the biggest measures the amendments seek to promote is the usage of renewable energy and the development of a domestic carbon market to battle climate change. It is also looking at introducing new concepts such as carbon trading and mandate the use of non-fossil sources. "It is considered necessary to have legal provisions to prescribe minimum consumption of non-fossil energy sources as energy or feedstock by the designated consumers," minister asserted. 7

Incentivise actions for emission reduction: Explaining the concept of carbon market, the minister said, a person embracing renewable energy will earn credits that can be purchased by others. This will make financing renewable energy projects easier. "A need was felt to provide a legal framework for a carbon market to incentivise actions for emission reduction leading to increased investments in clean energy and energy efficiency areas by the private sectors, he added."

Bringing residential buildings within ambit of energy conservation regime: Another key aspect of the bill is it proposes to enhance the scope of Energy Conservation Building Code and bring large residential buildings within the ambit of energy conservation regime. "Singh said big residential buildings consume 24 per cent of electricity and the bill has provisions to make such buildings more energy efficient and sustainable."

The bill says that the additional cost of 3-5 percent for buildings will be recovered within 4-5 years through savings on energy costs, even as the initiative aims to save 300 billion units of electricity by 2030 by implementing the building code. The new law seeks to impose penalties of as much as 1 million rupees (\$12,660) on individuals or organizations that don't comply with the new energy consumption standards. It will also allow local state electricity regulatory commissions to make regulations to implement the policies.

Under the changes, the federal government will issue energy savings certificates to consumers using less than the prescribed levels, while those consuming more than the mandated standards would be able to buy the certificates to ensure their compliance. [Source](#)

Power minister chairs Review Planning & Monitoring meeting with state utilities

The meeting deliberated on several issues of national importance in the power sector with underpinnings of sectoral viability and sustainability, building upon the Prime Minister's address on July 30, 2022 on the occasion of Ujjwal Bharat Ujjwal Bhavishya celebrations.

These included:

- liquidation of Government Department electricity dues and subsidy dues
- progress on prepaid Smart metering in Government departments
- establishing robust systems of Energy accounting and subsidy accounting and timely and advance payments thereof
- timely fixation of regular and true-up tariffs
- timely finalisation of Utility accounts
- Progress of Feeder & DT metering
- progress on Revamped Distribution Sector Scheme (RDSS)
- compliance in regard to Electricity (Late Payment Surcharge and Related Matters) Rules, 2022.

The meeting also witnessed the launch of the following:

- 10th Integrated Rating of Power Distribution Utilities
- 1st Consumer Service Rating of discoms
- Bharat eSmart Mobile Application (BeSMA).

Integrated Rating

Integrated Rating exercise is being carried out annually since 2012 with the aim of evaluating performance of utilities on a range of parameters covering financial sustainability, performance excellence and external environment and their ability to sustain improvements year over year. The methodology for the rating has been comprehensively reviewed and revised in the current rating exercise, which is the 10th one in the series.

The rating now lays a higher emphasis on financial performance, while also assessing operational efficiencies and external ecosystem of discoms. The rating will now be dynamic in nature based on triggers having impact on discom financials. Private discoms and State Power Departments have also been included for comprehensive sectoral coverage.

Consumer Service Rating of Discoms

The power minister also launched the first ever Consumer Service Rating of Discoms (CSR) for the FY2020-21. The report captures the current status of consumer services across various discoms. It delves into key parameters of consumer services such as operational reliability, connection services, metering, billing and collection services, fault rectification and grievance redressal. The discoms have been rated across various identified parameters on a seven-point scale. The intent is to enable sharing of best practices of top performing discoms as well as to help other discoms in identifying critical areas for enhancing performance.

BeSMA

As a step towards enhancing consumer empowerment, a free-to-use mobile app for prepaid smart meters was also launched for the nationwide rollout of smart metering. Called "Bharat eSmart Mobile Application (BeSMA)," this mobile app would build up on the data of the Smart meters and would provide essential information to consumers in regard to their usage and balance electricity remaining, both in terms of units and monetary terms. The app would enable consumers to access real time information pertaining to their

electricity usage and receive alerts & notifications. The app provides multiple options and gateways like UPI, net banking, credit/debit card etc. for payment and recharge through mobile phones with ease.

[Source](#)

Electricity Amendment Bill: Things you should know

Legislative changes are proposed to end distribution monopolies to give consumers a choice and improve the viability of the business in power suppliers. The Electricity (Amendment) Bill 2022 which has been introduced in the Lok Sabha on 9th August 2022, proposes radical changes in the power distribution area. A look at the key provisions of the Bill:

Provisions	Impact	Concerns/Criticism	Govt Assurance
<p>Choice to electricity buyers</p> <p>Bill provides a new supplier can use existing infrastructure to supply power</p> <p>Power regulators must decide in 90 days or application deemed to be approved</p>	<p>Choice of power suppliers to consumers</p> <p>Part of present Electricity Act but regulators squat over applications for licenses</p>	<p>Urban areas would have many licensees, while loss-making areas would be underserved.</p> <p>Indirect Privatisation</p> <p>Universal service obligation only on current discoms</p> <p>Predatory pricing</p>	<p>Consumer-centric and better Services</p> <p>Min area would be defined</p> <p>Max and min tariffs would be set</p> <p>Universal service obligation on all licencees</p> <p>Network sharing allowed for optimum utilization</p>
<p>New responsibilities and checks on regulators</p> <p>Qualifying criteria of members of regulatory bodies tightened</p> <p>Upper age limit raised to 67 years</p>	<p>Power regulators to set electricity tariffs every year</p>	<p>Opposition from states as they are seen losing control over regulatory bodies</p>	<p>State governments do not lose control and continue to appoint the regulators.</p> <p>Ensures independence of regulators.</p> <p>Will improve regulatory mechanism</p>

			To ensure full five-year term is availed
Power to enforce orders as a decree of the civil court to regulators	Will ensure timely compliance of orders		Ensure compliance of orders
Removal of members of regulatory bodies on wilful violation or gross negligence of rules.	Regulators cannot skip duties including tariff revisions, timely order deliveries,	Pressure on regulators impacts proper and independent functioning.	Ensures compliance of Act.
Promote green energy Ensure discoms buy Centre-mandated portion of power from renewable sources	Meeting India's green energy commitments	Too much intervention by the Centre Stepping on state prerogative	Centre only sets minimum RPO. State regulators free to set above the minimum threshold.
<i>Extra powers to load despatch centres to ensure timely payments by states to power plants</i> National and state dispatch centres will cut power supplies from plants against which discoms have not maintained bank guarantees.	Force discipline among discoms.	Could cause supply disruptions/ grid instability	No threat to grid. Impacts only defaulting discoms.

[Source](#)

Indian scientists extract record uranium from seawater that could power nuclear plants

As the world faces the effects of climate change, and pressure mounts to reduce emissions from fossil fuel-based energy sources, countries are looking at newer ways to switch to renewable, including shifting existing technologies to non-polluting methods. Now, a group of Indian researchers have demonstrated a way in which nuclear energy can go truly renewable. But wait. Isn't nuclear power a renewable source of energy? Well, kind of. Let us explain.

IS NUCLEAR ENERGY RENEWABLE?

Nuclear power, mostly used in the production of electricity, is widely considered to be a renewable source of energy. However, the raw material that is used to generate nuclear power through a process called fission is non-renewable. Nuclear power plants need a specific form of uranium called Uranium-235. Now, this is a depleting resource.

Uranium reserves found naturally are on a course to reach exhaustion within a century, which means that countries will have to look for alternatives to generate this critical element that powers nuclear plants across the world. The world at the moment has a nuclear reserve of 7.6 million metric tons.

THE ANSWER LIES AT SEA

In an attempt to address this worry, a group of scientists at the Indian Institute of Science Education and Research (IISER), Pune, attempted to extract uranium from seawater. Their attempts were successful and the findings were published in the journal Royal Society of Chemistry. "With rising global energy demand and environmental concerns associated with fossil fuels, sustainable energy supply to the global community remains a great challenge. Large-scale uranium extraction from seawater (UES) is widely considered as reconciliation to increasing global energy demand and climate change crises," the scientists said in their paper.

Researchers estimate that seawater contains 4.5 billion metric tons, nearly 1,000 times more uranium than conventional sources. But, with existing technologies, we are far from extracting this element from seawater cost effectively. Experts have said that uranium recovery from seawater is extremely challenging due to its very low concentration in comparison to the high abundance of interfering ions.

WHAT THE INDIAN SCIENTISTS DID

The team of researchers at IISER have developed a rare ionic macroporous metalorganic framework, which can effectively capture uranium. They managed to capture 95 per cent of uranium within two hours, which is in sharp contrast to the other existing adsorbent. A proper adsorbent combining the features of high capacity, excellent selectivity, and ultra-fast kinetics has been a long challenge.

Uranium reserves found naturally are on a course to reach exhaustion. (Photo: Getty)
They collected seawater from the Arabian Sea (Juhu beach), Mumbai for uranium extraction and the adsorbent resulted in a record uranium uptake capacity of 28.2 mg per gram in only 25 days and "satisfies the remarkable uranium extraction from seawater standard only in 2 days compared to existing adsorbents including commercially available materials reported so far."

"Combined with exceptional selectivity, record capacity, ultrafast kinetics, and long service life, this material could be a potential candidate for the efficient extraction of uranium from natural seawater. The selective ion exchanged harvesting method introduces the concept of extracting uranium from natural seawater may lead to an unlimited supply of uranium at an economically affordable cost," Professor Sujit K. Ghosh, who was part of the study, told IndiaToday.in. [Source](#)

Relief to Gencos as MoP withdraws imported coal blending orders

In a huge relief to generating companies having domestic coal-based power plants, including those in the public sector such as State Gencos, the Ministry of Power (MoP) has withdrawn with immediate effect its May 26 order in which it had directed the power plants to blend domestic coal with imported coal.

As per its May 26 order, the directions were applicable till March 31 next to overcome the coal shortage. It was issued when coal-based power plants in the country were facing huge shortage of coal following high surge in demand for energy. The direction was to blend at least 10% imported coal in the plants' consumption and place the orders for import of coal by sending the details to the Ministry.

Further, it was stipulated that if the Gencos did not place orders for import of coal for blending by May 31 and the ordered coal failed to start reaching the power plants by June 15, the defaulter Gencos would have to import higher quantity of coal so that blending goes up to 15% in order to meet the shortfall.



However, Telangana Genco having 4,043 megawatt thermal (coal-based) generation capacity with average consumption of 50,000 tonnes of coal a day did not bite the bullet to go for coal imports as the State Government took a firm stand against importing coal, whose price was ranging above ₹24,000 a tonne, against about ₹4,000 a tonne for the domestic coal.

All the power plants of TS-Genco have coal linkage with Singareni, a company owned by the State Government in which the Centre too has 49% shareholding, and the import of coal for blending which could have been about 7,500 tonnes a day would have been a huge burden on it. The additional burden would have been ₹15 crore a day as the price of imported coal was six times the cost of domestic coal price for its own plants.

Besides, the Genco has long-term and medium-term power purchase agreements with 1,200 MW capacity Singareni thermal power plant owned by Singareni and the Sembcorp Energy, respectively. The MoP, however, stated that the power plants which have imported coal as per May 26 orders till the issue of this (August 11) orders shall utilise in accordance with the methodology given in the May 26 order.

[Source](#)

Transmission charges payable by DICs for the billing month of August'22

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	51.23
2	UP	NR	53.50
3	Punjab	NR	56.41
4	Haryana	NR	67.82
5	Chandigarh	NR	43.66
6	Rajasthan	NR	55.38
7	HP	NR	40.70
8	J&K	NR	42.63
9	Uttarakhand	NR	55.07
10	Gujarat	WR	42.14
11	Madhya Pradesh	WR	42.09
12	Maharashtra	WR	46.79
13	Chhattisgarh	WR	37.35
14	Goa	WR	46.70
15	Daman Diu	WR	46.31

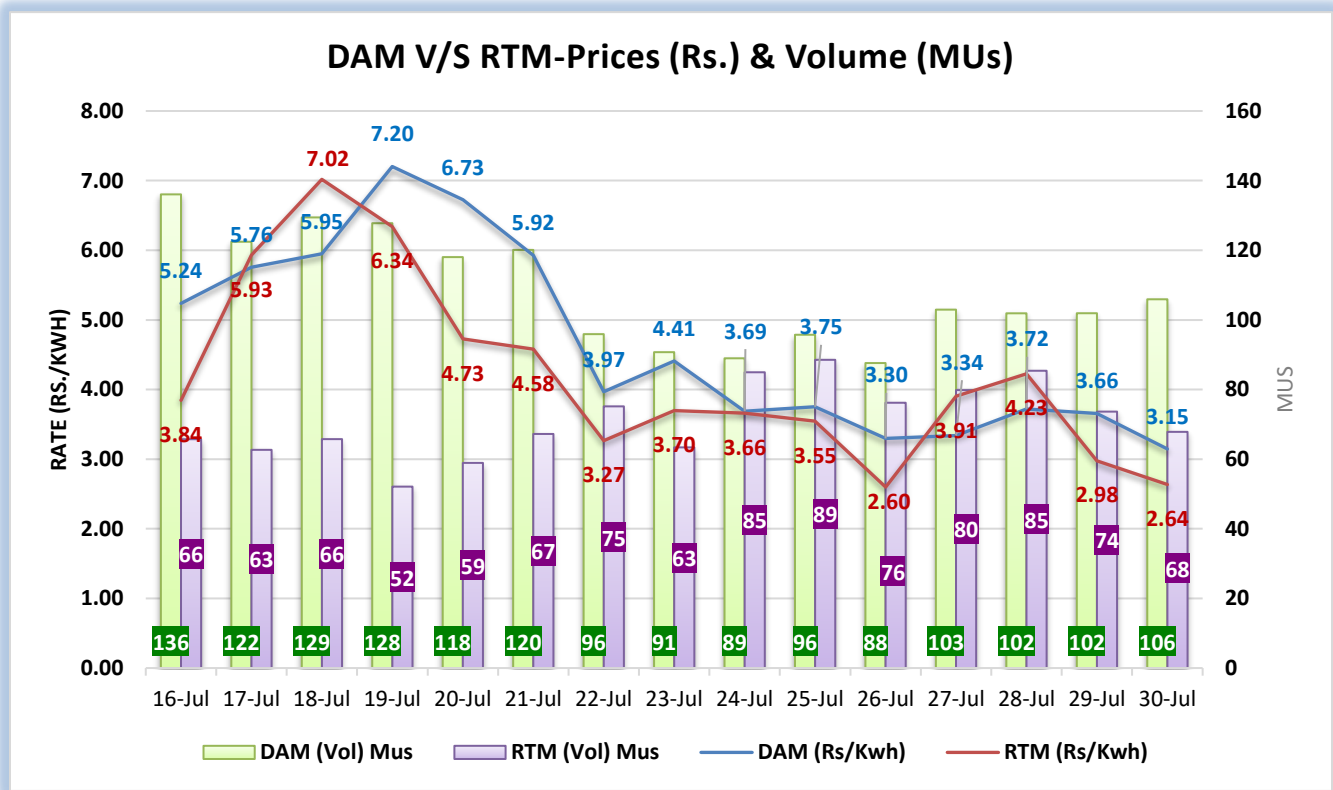
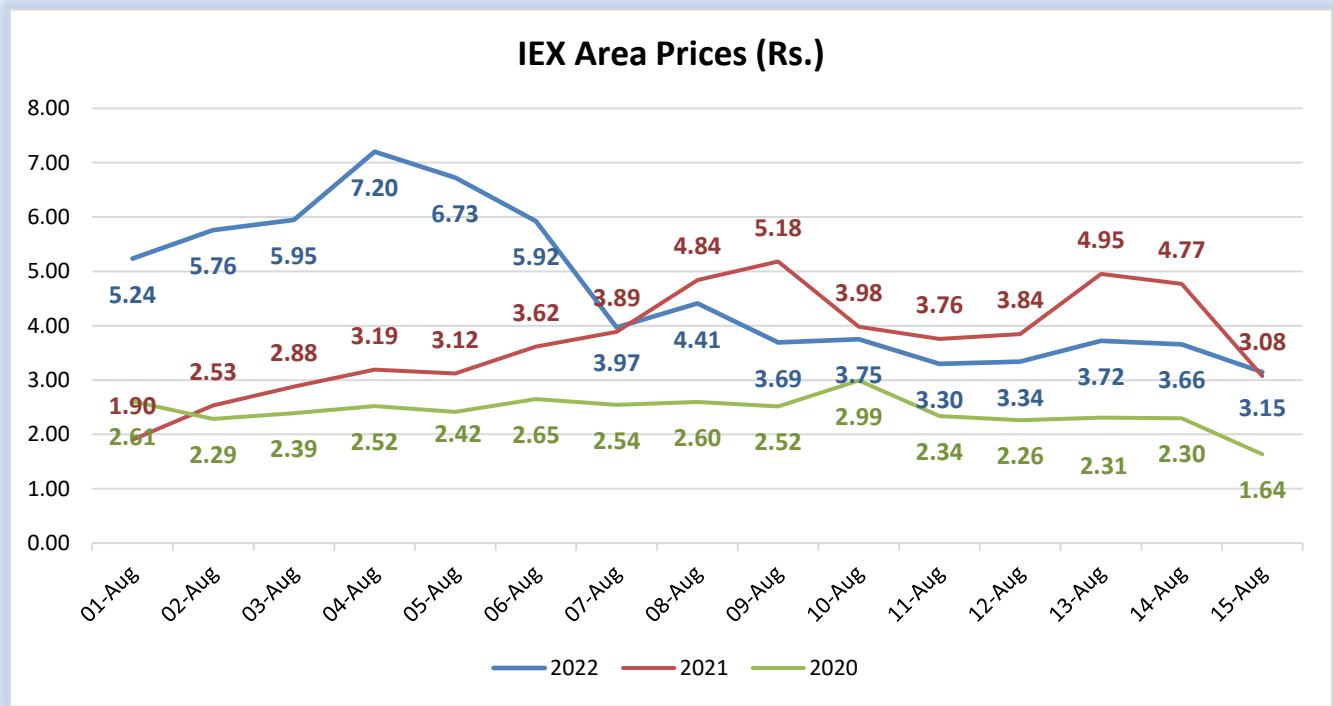
16	Dadra Nagar Haveli	WR	46.31
17	Andhra Pradesh	SR	54.67
18	Telangana	SR	39.31
19	Tamil Nadu	SR	40.68
20	Kerala	SR	42.07
21	Karnataka	SR	45.89
22	Pondicherry	SR	38.68
23	Goa-SR	SR	31.88
24	West Bengal	ER	48.95
25	Odisha	ER	48.46
26	Bihar	ER	42.07
27	Jharkhand	ER	49.95
28	Sikkim	ER	37.33
29	DVC	ER	43.67
30	Bangladesh	ER	35.50
31	Arunachal Pradesh	NER	41.77
32	Assam	NER	46.72
33	Manipur	NER	38.73
34	Meghalaya	NER	40.04
35	Mizoram	NER	39.24
36	Nagaland	NER	55.40
37	Tripura	NER	46.35

Bilateral Tender Results: -

Sl. No.	Tender Quantum (MW)	Supply Period	Time Blocks (Hrs.)	Price (Rs./kWh)	LOI Status
Torrent Power Limited/Short/22-23/RA/124					
1	200	16.08.2022 to 31.08.2022	00:00 to 24:00	7.44-7.99	Tender Scrapped
2	200	16.08.2022 to 31.08.2022	09:00 to 24:00	-	
3	200	01.09.2022 to 15.09.2022	00:00 to 24:00	8.28	
4	200	01.09.2022 to 15.09.2022	09:00 to 24:00	-	
5	200	16.09.2022 to 30.09.2022	00:00 to 24:00	8.28	
6	200	16.09.2022 to 30.09.2022	09:00 to 24:00	-	

7	200	01.10.2022 to 31.10.2022	00:00 to 24:00	9.51	
8	350	01.10.2022 to 31.10.2022	07:00 to 22:00	-	
9	200	01.11.2022 to 30.11.2022	00:00 to 24:00	8.28	
10	350	01.11.2022 to 30.11.2022	07:00 to 22:00	-	
11	200	01.12.2022 to 31.12.2022	00:00 to 24:00	8.28	
12	350	01.12.2022 to 31.12.2022	07:00 to 22:00	-	
13	350	01.01.2023 to 31.01.2023	07:00 to 22:00	-	
14	250	01.01.2023 to 31.01.2023	00:00 to 24:00	8.28	
Maharashtra State Electricity Distribution Co Ltd/Short/22-23/RA/115					
1	500	01.10.2022 to 15.10.2022	00:00 to 24:00	8.82	Decision Pending
2	500	16.10.2022 to 31.10.2022	00:00 to 24:00	8.68	
3	500	01.11.2022 to 15.11.2022	00:00 to 24:00	8.68	
4	1000	01.03.2023 to 15.03.2023	00:00 to 24:00	8.82	
5	1000	16.03.2023 to 31.03.2023	00:00 to 24:00	8.82	
6	1000	01.04.2023 to 15.04.2023	00:00 to 24:00	9.03	
7	1000	16.04.2023 to 30.04.2023	00:00 to 24:00	9.03	
8	1000	01.05.2023 to 15.05.2023	00:00 to 24:00	9.34	
9	1000	16.05.2023 to 31.05.2023	00:00 to 24:00	9.34	
10	500	01.06.2023 to 15.06.2023	00:00 to 24:00	8.75-9.34	
TAMILNADU GENERATION AND DISTRIBUTION CORPN LTD/Short/22-23/RA/108					
1	500	15.02.2023 to 28.02.2023	00:00 to 24:00	9.45	Decision Pending
2	1500	01.03.2023 to 31.03.2023	00:00 to 24:00	10.00-10.50	
3	1500	01.04.2023 to 30.04.2023	00:00 to 24:00	10.00-10.50	
4	1500	01.05.2023 to 20.05.2023	00:00 to 24:00	10.00-10.50	
CESC/Short/22-23/RA/125					
1	36	27.08.2022 to 25.08.2023	00:00 to 24:00	5.83	Decision Pending

IEX Price Trends



Weather (Estimated for next fortnight)

City	Max Temp	Min Temp	Precipitation (Probability)
DELHI	34	27	37%
MUMBAI	30	27	60%
KOLKATA	33	28	57%
CHENNAI	34	26	45%

(Source - Accuweather)

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