

Energy & Natural Resources

December 2020 Edition



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Executive Summary

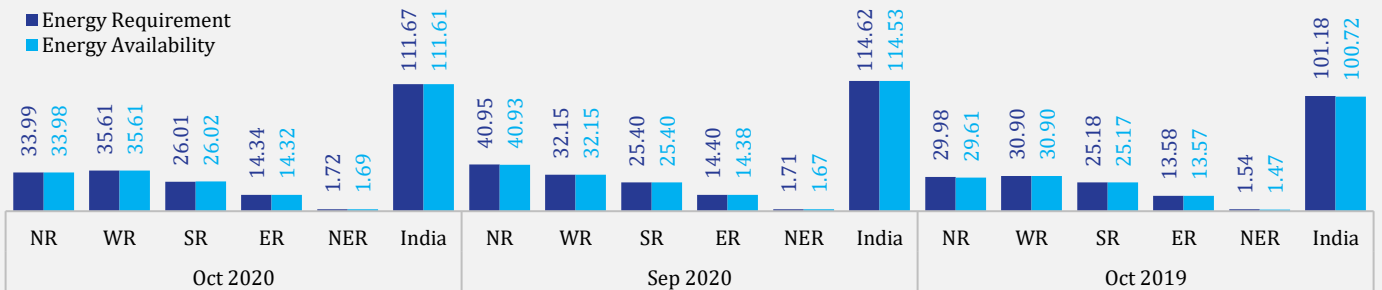
All-India electricity peak demand in Oct 2020 increased by 8% compared with Oct 2019. Demand started to recover as lockdown restrictions eased and industrial & commercial activities increased. All-India electricity demand also registered an average increase of 9% in Oct 2020 compared with Oct 2019. Thermal energy generation saw an increase of 8% in Oct 2020 compared with Oct 2019. Whereas RE generation, including hydro, reduced by 21% in Oct 2020 compared with Sep 2020.

Further, India witnessed record low solar tariff of ₹2/kWh in SECI auction for 1070 MW in Rajasthan which is about 15.3% lower than the SECI's previous record low tariff of ₹2.36/kWh.

The newsletter highlights sector trends and developments in areas such as regulatory, RE, investment activities, emerging technologies, and international updates. REC trading did not take place in Nov 2020 since it has been put on hold by APTEL until further notice.

Region Wise Energy Requirement/Availability Scenario (BU)

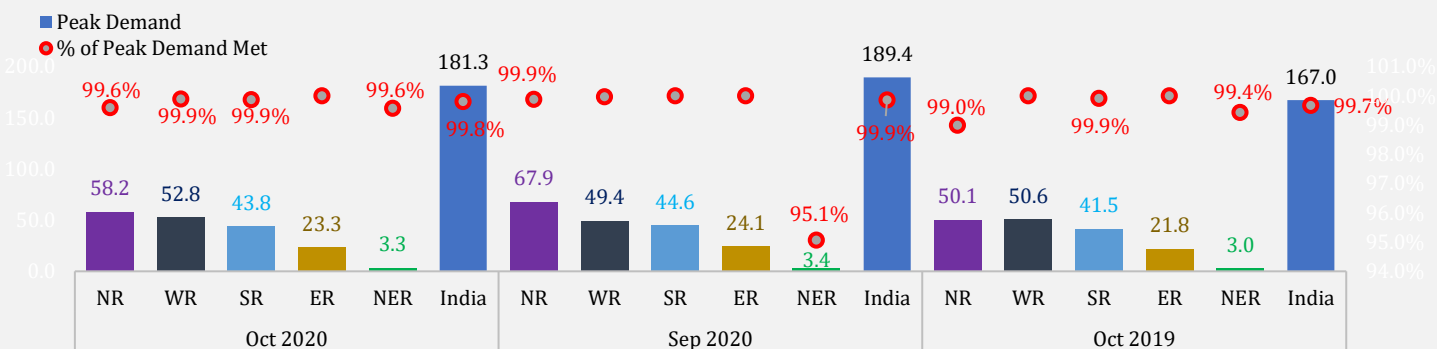
All-India energy requirement increased by 9% in Oct 2020 compared with Oct 2019. On a monthly basis, all-India energy requirement reduced by 3% in Oct 2020 against Sep 2020, with northern region witnessing the maximum fall of 17%.



Source: POSOCO

Region Wise Electricity Peak Demand (GW) & % of Peak Demand Met

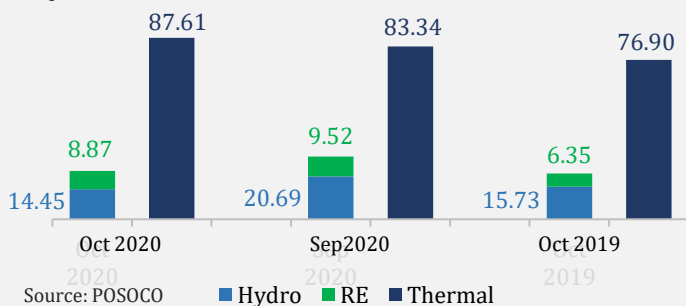
All-India peak demand increased by 8% in Oct 2020 compared with Oct 2019. Region-wise increase in peak demand in Oct 2020 compared with Sep 2020 was the most in WR region at 7%. Whereas NR's peak demand reduced by 14%.



Source: POSOCO

Source Wise Generation (BU)

Hydro generation reduced to 13% of the total generation in Oct 2020 from 18% in Sep 2020 & 16% in Oct 2019. Thermal generation increased by 8% in Oct 2020 from Sep 2020.



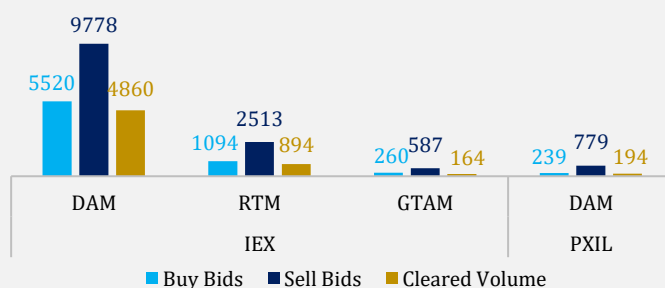
Source: POSOCO

■ Hydro ■ RE ■ Thermal

Day Ahead, Real Time & Green Term Ahead Market (MU)

Avg. Market Clearing Price, Nov 2020:

IEX: DAM - ₹2727/MWh, RTM - ₹2748/MWh, GTAM - ₹3839/MWh
PXIL: DAM - ₹2800/MWh

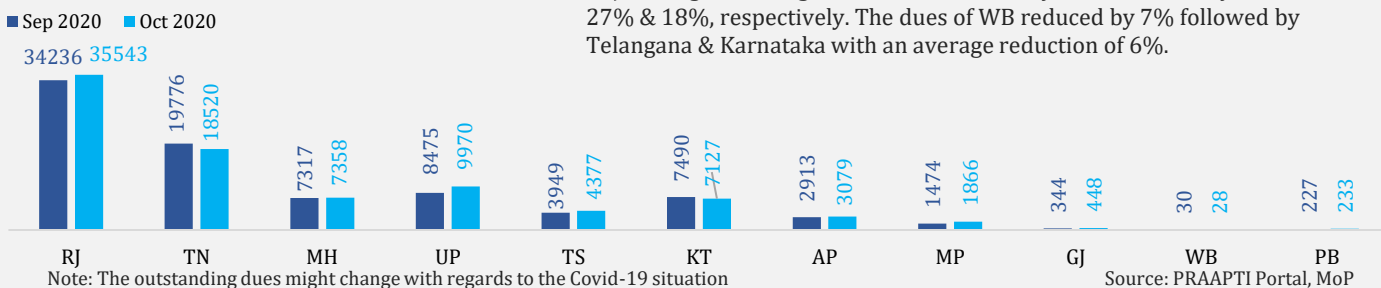


Source: IEX & PXIL

Discom Payables >60 days (Rs. Crore)

Most of the state Discoms have registered an increase in outstanding payments to Gencos.

Gujarat registered highest increase in dues by 30% followed by MP & UP with 27% & 18%, respectively. The dues of WB reduced by 7% followed by Telangana & Karnataka with an average reduction of 6%.



Note: The outstanding dues might change with regards to the Covid-19 situation

Source: PRAAPTI Portal, MoP

Regulatory & Policy

- MoP issued a notification to cover all Discoms under the purview of the Energy Conservation Act, 2001, to help reduce electricity losses & bring transparency through energy accounting & auditing, appointment of an energy manager & implementation of energy conservation & efficiency measures.
- Ministry of Finance issued a notification revising the performance security deposits for tenders to 3% of the contract value from the previous range of 5%-10% amid the COVID-19 induced economic slowdown.
- RERC issued regulations for determining tariffs for RE based power sources for 2020. It included 100% exemption of intra-state transmission & wheeling charges for solar power projects supplying power to electric vehicle charging stations.
- TSERC issued draft Smart Grid Regulations, 2020, to enhance the efficiency of its power generation, transmission & distribution networks.

Utilities

- GoI approved production-linked incentive plan in 10 critical sectors to enhance India's manufacturing capabilities under the Atmanirbhar Bharat initiative. It allocated ₹796.42 billion out of ₹1.45 trillion for three critical sectors- high efficiency PV modules, advanced chemistry cell battery & automobiles & auto components.
- Indian firms are likely to spend ₹10,000 crore over 3 years on 1000 liquefied natural gas terminals along main roads, industrial hubs & in mining areas of the country to cut the fossil fuel consumption.
- Tamil Nadu topped the list with sanctioned loan worth ₹30,230 Cr under the Discom liquidity package followed by ₹20,940 Cr for UP & ₹14,310 Cr for Maharashtra. The total loan is worth ₹1,18,273 Cr sanctioned so far by PFC & REC.
- The High Court of Punjab & Haryana issued stay order on the privatization of Chandigarh Discom.
- Okaya Power Group received World Bank funded contract from EESL for deployment of 1020 EV charging stations across India.

Renewable Energy & Storage

- MNRE enhanced solar capacity target of 30.8 GW by 2022 from the earlier 25.75 GW under PM-KUSUM program.
- TNERC approved benchmark tariff of ₹2.28/kWh to setup 20,000 agricultural solar pumps under Component-C of the PM-KUSUM program. It also set a ₹1/kWh incentive for farmers for exporting surplus energy back into the grid.
- SECI signed a MoU with the Odisha RE Development Agency to develop grid-connected Agro-PV projects in the state.
- CIL announced investment of ₹56.50 billion by March 2024 to develop 14 solar projects to help power its mining operations.
- NTPC plans to acquire at least 1,000 MW of operational wind power projects as part of its pivot towards green energy.
- Adani Solar plans to expand its cell and module manufacturing facility with an additional of 2 GW. With this expansion, the company's total manufacturing capacity will reach 3.5 GW.

Bids

- SECI's 1070 MW solar tender for Rajasthan achieved lowest ever tariff of ₹2/kWh quoted by two firms namely, Saudi Arabia based Aljomaiah Energy & Water Co. and a subsidiary of Sembcorp who won 200MW & 400 MW, respectively. NTPC also won 470 MW by quoting ₹2.01/kWh.
- NTPC & Tata Power won 90 MW & 110MW, respectively, in the KSEB's 200 MW solar tender at a tariff of ₹2.97/kWh.

Emerging Technologies

- Berlin researchers have developed illumination model by deploying bifacial modules for large-scale solar projects to claim that the LCOE could be reduced by up to 23% by arranging solar panels with the module tilt angle equal to the latitude & maintaining the module distance such that no mutual shading happens between neighboring solar panels.
- CGE Energy in USA developed an innovative "Fluid driven vertical axis wind turbine". It has remote controlled blades that fold up & lay flat against the rotor in dangerous, high-wind situations.

Investment & Transactions

- Bharti Airtel signed an agreement to acquire 5.20% equity shares for ₹45 million in Avaada's solar project in Maharashtra.
- ADB approved \$132.8 million loan to modernize the power distribution network in Meghalaya. It will be utilized to support GoI's 24*7 Power for All scheme.
- Renew Power sold 300 MW Karnataka wind farms to Ayana Renewable for ₹1600 Cr.
- Biocon acquired 26% stake in Hinduja Renewables for ₹5.91 Cr. The objective is to enhance RE based power consumption.
- CPPIB & Abu Dhabi Investment Authority keen to invest in India's smart metering program through NIIF.
- Blueleaf Energy, a Singapore based RE firm acquired majority stake in Vibrate Energy to enter Indian RE market.

International Updates

- China has powered up its first domestically developed nuclear reactor, the Hualong One. The reactor can generate 10 billion kWh of electricity each year & cut carbon emissions by 8.16MT.
- European Commission plans to increase Europe's offshore wind capacity up to 60 GW by 2030 & 300 GW by 2050 from its existing capacity of 12 GW. It also proposes an additional capacity enhancement of ocean energy, floating wind & solar up to 40 GW by 2050.
- UK & Thailand govt. signed LoI to promote inclusive economic growth in the energy sector. The program aims to encourage the transition to low carbon energy in Thailand, creating real energy cost savings for people & businesses, thereby promoting economic growth in Thailand.
- Saudi Arabia announced power sector reforms that will ensure the health & sustainability of the power industry & also boost in achieving its goals under Vision 2030.

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Banks & Financial
Institutions

Equity Investors

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