

## Management Discussion and Analysis



### Indian economic review

The India economy witnessed a slowdown in FY 2019-20, with both structural and cyclical forces at work. The liquidity crisis that broke out in 2018 has continued to adversely impact the availability and cost of credit. Consumption growth was moderated, while investment growth was subdued during the year. Production output of eight core industries shrunk by 6.47% in March 2020 on the back of contraction in cement and natural gas sectors, as compared to a 5.8% expansion in March 2019. The fiscal deficit widened to 4.6% of the GDP, but the current account deficit narrowed to 0.9% of the GDP. On the whole, the economy recorded its slowest growth in 11 years at 4.2%.

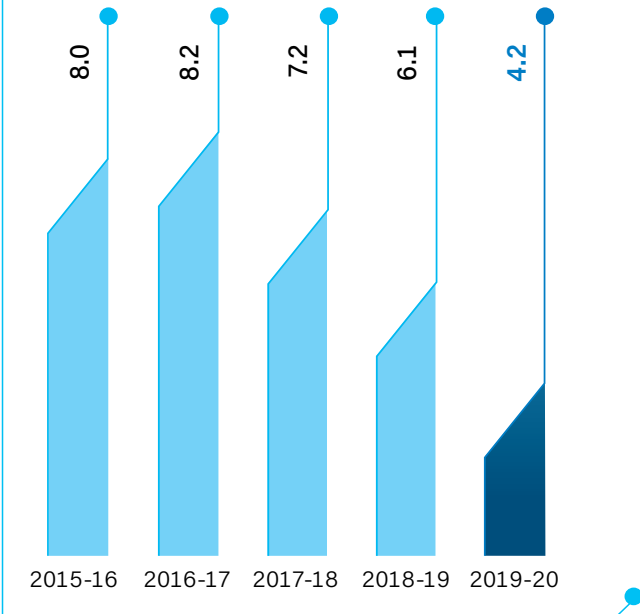
Fears of a recession increased with the outbreak of the novel coronavirus disease (COVID-19) towards the end of the financial year. With effect from March 25, 2020, the Government of India imposed a nation-wide lockdown to contain the

spread of the virus and allow time for the country to ramp up its medical infrastructure. Subsequently, external risks increased significantly, together with weakened export demand, reduced investor confidence and non-availability of raw materials and intermediate inputs.

Macro policy responses of the government were unprecedented, both in scale and scope, and will serve to cushion the near-term shock and deliver relief to those on the margins. That said, with job losses climbing the charts and intense pressure on small and medium-sized businesses, the recovery path will not be easy and will require a strong collaborative effort – spanning public policy, private sector participation and civic society support.

**INDIA'S GROWTH PATTERN**

(%)



concerns around imports from China. Policymakers will need to be mindful of the repercussions of every decision on India's economy and its dependence on China for non-consumption goods such as inputs, components, industrial equipment and technology.

Looking ahead, India will need to ensure that its healthcare systems are adequately resourced. The pace of work on developing vaccines and treatment options promises hope. As the lockdown restrictions are gradually unwound, the government will need to provide targeted support to revive demand and improve the ease of doing business. Beyond the pandemic, policymakers must cooperate to resolve trade tensions that endanger an eventual recovery from the COVID-19 crisis. Further, it remains imperative that individuals, businesses and governments around the world work together to avoid a repeat of this catastrophe.

**Outlook**

The likely duration, intensity and spread of COVID-19 injects a great deal of uncertainty in economic outlook of India and the world at large. In recent months, the escalating geo-political unrest between India and China further amplified



## INDUSTRY REVIEW



The Indian power sector counts among the key drivers of the country's socioeconomic development. In recent years, there has been a significant flux in India's electricity sector. A number of policies have been adopted that have fundamentally transformed the sector. On the upstream side, renewable energy is seeing the fastest growth among all other competing energy sources, with auction-based processes replacing allocation and schemes to promote solar-based solutions (rooftop, pump sets, etc.) abound. The Government of India has set a target to achieve 175 GW installed capacity of renewable energy by FY 2021-22. As on March 27, 2019, the government launched US\$ 5 billion of transmission-line tenders in phases to achieve this target.

On the downstream side, initiatives like Ujwal DISCOM Assurance Yojana (UDAY) to cut debt of Distribution Companies (DISCOMs); and 'Power for All' – envisaging 100% village-level electrification through the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY); stronger power sub-transmission and distribution networks in urban areas through the Integrated Power Development Scheme (IPDS) and 100% household electrification through the Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) were launched. India fulfilled the objective of the SAUBHAGYA scheme as on March 31, 2019, bringing more than 26.2 million households the access to power since 2015.

Currently, the country is the third largest producer and third largest consumer of electricity in the world. Sources of power generation range from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to viable non-conventional sources such as wind, solar, and agricultural and domestic waste. In order to meet the increasing demand for electricity in India, massive addition to the installed power generation capacity is required.

### Generation

There was a sustained deceleration in domestic power generation from June to November 2019, which can be partly attributed to a high base and



extended monsoons. One of the main demand-side factors include a slowing industrial sector due to subdued economic activity. There were early signs of a recovery in January and February 2020, but the emergence of COVID-19 and the associated lockdowns aggravated the downturn, with manufacturing activity going on a temporary pause.

The national grid in India recorded an installed capacity of 370.1 GW as on March 31, 2020, up from 358.6 GW in the year earlier. The peak supply deficit narrowed to 0.7% in FY 2019-20, as compared with the 0.8% in the year earlier. At 62.2%, domestic power generation continues to be led by coal. However, the growth in generation from conventional energy sources lagged behind that of renewable ones.

Amidst more stringent air pollution regulations, new coal power plants that are more efficient, flexible and relatively lower in emissions will be better positioned for their economic viability. By contrast, old and inefficient plants, which require expensive retrofits to comply with environmental standards, are in a difficult position. The government is identifying those plants that can and will need to run more flexibly in the system.

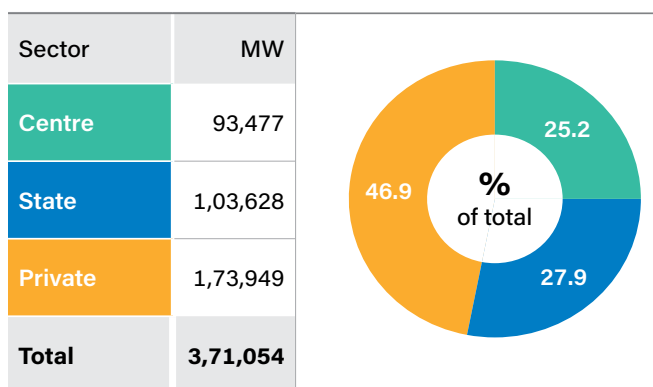
Further, according to the Intended Nationally Determined Contribution (INDC) to the UN Framework Convention on Climate Change (UNFCCC) target, India committed to acquiring

~40% of cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030 and reduce the emissions intensity of its GDP by 33 % to 35% by 2030 (base year of 2005). India is taking several steps to transform its energy mix, including creating green energy corridors, solar parks, implementation of the National Smart Grid Mission, rolling out of solar-wind hybrid and battery storage tenders, and introduction of innovative technologies to promote energy efficiency. Progressively declining costs, improved efficiency and reliability have made renewable energy a viable option for fulfilling India's energy needs in a sustainable manner, while also helping it pursue its IDC commitments. The share of renewable resources in India's installed capacity has grown from 77.6 GW in FY 2018-19 to 87.7 GW in FY 2019-20.



**Sector-wise installed capacity**

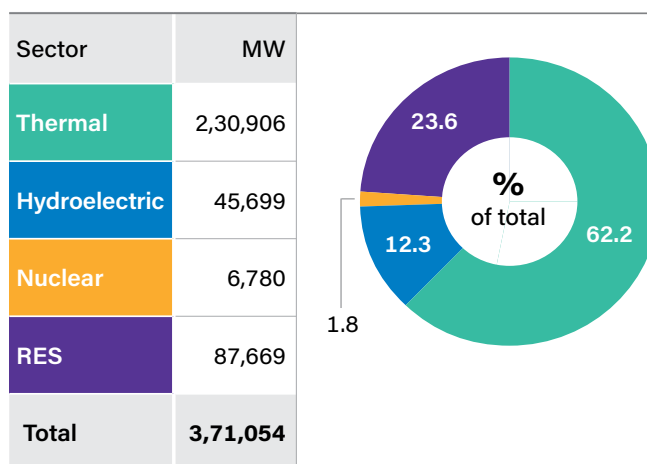
(as on July 20, 2020)



Source: Central Electricity Authority (CEA)

**Source-wise installed capacity**

(as on July 20, 2020)



Source: Central Electricity Authority (CEA) | \*Installed capacity in respect of RES (MNRE) as on June 30, 2019 and RES (Renewable Energy Sources) includes small hydro project, biomass gasifier, biomass power, urban & industrial waste power, solar and wind energy

**Power supply position during peak hours** (as on July 20, 2020)

Year	Peak demand (in MW)	Peak supply (in MW)	Surplus (in MW)	%
2015-16	1,53,366	1,48,463	-4,903	-3.2
2016-17	1,59,542	1,56,934	-2,608	-1.6
2017-18	1,64,066	1,60,752	-3,314	-2.0
2018-19	1,77,022	1,75,527	-1,494	-0.8
<b>2019-20</b>	<b>1,83,804</b>	<b>1,82,533</b>	<b>-1,271</b>	<b>-0.7</b>

Source: Central Electricity Authority (CEA)

**Total power generation** (as on July 20, 2020)

Year	Energy generation from conventional sources (in BU)	y-o-y growth (%)
2015-16	1,173.60	5.69
2016-17	1,241.69	5.80
2017-18	1,308.15	5.35
2018-19	1,376.10	5.19
<b>2019-20</b>	<b>1,389.12</b>	<b>0.95</b>

Source: Central Electrical Authority (CEA)

**Transmission**



Transmission enables the evacuation of power from generation stations for delivery to load centres and distribution to consumers. India has developed an extensive network of transmission lines over the years. The transmission system in the country is primarily through  $\pm 800$  kV and  $\pm 500$  kV HVDC and 765 kV, 400 kV and 220 kV AC lines.

The government-owned Power Grid Corporation of India Limited (POWERGRID) transmits ~50% of the total power generated in India on its transmission network. The government conferred POWERGRID with the status of a 'Maharatna' in October 2019, granting it greater decision-making autonomy, both in domestic as well as global markets.

India has a total transmission line length and transformation capacity of 4.25 lakh circuit km and 9.68 lakh MVA, respectively, as on March 2020.

The introduction of Tariff-Based Competitive Bidding (TBCB) mechanism was heralded as one of the most important reforms for the power sector in India. Effective January 5, 2011, it was decided that all forms of power procurement would take place only through the TBCB route. Prior to that, POWERGRID was the nominated agency for all inter-regional transmission lines. But with the advent of TBCB, POWERGRID was required to

bid for projects, along with other private sector contenders, on the basis of tariffs. TBCB has levelled the playing field and created a new generation of private sector power transmission developers and there has been a significant reduction in tariffs, intended to ultimately benefit the end consumer. As of June 2020, 54 projects have been awarded under the TBCB route in total and of this, 28 have been commissioned or are ready for commissioning.

**Total transmission line length in circuit km** (up to March 2020)

Sector	± 800 kV HVDC	± 500 kV HVDC	765 kV	400 kV	220 kV	Total
Central	6,124	5,948	36,427	1,02,855	11,968	1,63,322
State	-	1,504	1,512	59,934	1,67,163	2,30,113
JV/Private	-	1,980	6,914	21,732	1,010	31,636
<b>Total</b>	<b>6,124</b>	<b>9,432</b>	<b>44,853</b>	<b>1,84,521</b>	<b>1,80,141</b>	<b>4,25,071</b>

Source: Central Electrical Authority (CEA)

**Total transmission capacity in MVA** (up to March 2020)

Sector	± 800 kV HVDC	± 500 kV HVDC	765 kV	400 kV	220 kV	Total
Central	12,000	9,500	1,91,500	1,56,530	9,801	3,79,331
State	-	1,500	19,000	1,67,602	3,61,863	5,49,965
JV/Private	-	2,500	20,500	13,640	1,957	38,597
<b>Total</b>	<b>12,000</b>	<b>13,500</b>	<b>2,31,000</b>	<b>3,37,772</b>	<b>3,73,621</b>	<b>9,67,893</b>

Source: Central Electrical Authority (CEA)




**Distribution**

Distribution represents the most important element in the power delivery value chain, ensuring uninterrupted, reliable and quality supply of power. DISCOMs in India grapple with challenges like high Aggregate Technical and Commercial (AT&C) losses and operational inefficiencies, putting immense pressure on their commercial viability. The AT&C losses of DISCOMs at the all India level at 18.87% (as of July 2020) were above the UDAY target of limiting the losses to 15% by FY 2018-19. The gap between average cost of supply and average revenue was realised at the national level is

₹ 0.41/unit (as of July 2020) against the target of elimination of the gap in FY 2018-19.

The inability of states to hike tariffs, rising operational expenditure, high levels of outstanding dues and delays in receipt of subsidy has further weakened the financial position of DISCOMs. The outstanding debt of DISCOMs at the end of March 2020 stood at ₹ 94,599 crores, as compared to ₹ 57,352 crores at the end of March 2019.

## Challenges

		
<p><b>Generation</b></p> <ul style="list-style-type: none"> <li>▪ Peak deficit continues to persist</li> <li>▪ Capacity utilisation of thermal power plants has been declining</li> <li>▪ Energy mix needs to be balanced for efficient capacity utilisation</li> <li>▪ High share of the power sector in the non-performing assets of public sector banks</li> <li>▪ Escalating generation cost of coal-fired power</li> <li>▪ Environmental concerns for thermal power generation</li> <li>▪ Renewable energy sources are not evenly spread across the country and the market for it is still developing</li> </ul>	<p><b>Transmission</b></p> <ul style="list-style-type: none"> <li>▪ Inadequate transmission infrastructure for power supply</li> <li>▪ Grid connectivity of renewable energy sources</li> </ul>	<p><b>Distribution</b></p> <ul style="list-style-type: none"> <li>▪ Poor financial health of DISCOMs</li> <li>▪ Households have been electrified but quality of supply is still an issue</li> </ul>



## COVID-19 impact

The Indian power sector is seeing a significant decline in consumption, in the wake of COVID-19 and the resultant lockdowns, which have brought the economy to a near-standstill. Although the severity of the impact is difficult to ascertain at this stage, given the uncertainty associated with containing the infection spread, it is likely that the pandemic will compound the financial stress of power producers and DISCOMs.

In recognition of the impact of the pandemic, the government announced some relief measures for the power sector, at the end of March 2020. These include:

- Delay on account of disruption of the supply chains due to the virus spread in China or any other country to be treated as force majeure for all renewable energy projects
- 3-month moratorium on DISCOMs on payments to generation and transmission companies and waiver of penalty for late payment

- PSM maintained by DISCOMs with generators for dispatch of power to be reduced by 50%
- DISCOMs to receive ₹ 90,000 crores liquidity against receivables from Power Finance Corporation (PFC) and Rural Electrification Corporation (REC), allowing them to pay dues to power producers
- Adequate supply of coal to be ensured for uninterrupted supply of electricity

In tandem, the Reserve Bank of India (RBI) initiated several policy actions for the overall economy, which will likely benefit the power sector as well. These include:

- Moratorium on loans – initially declared for three months, from March 1 to May 31, 2020, and extended by another three months up to August 31, 2020
- Deferment on payment of interest with respect to working capital facilities in the form of cash, credit/overdraft – initially declared for three months, from March 1 to May 31, 2020, and

extended by another three months up-to August 31, 2020

## Outlook

India's electricity security has improved markedly through the creation of a single national power system and major investments in thermal and renewable capacity. The country's rise to the 22nd position in 2019, from 137 in 2014 on the World Bank's Ease of Doing Business index – 'Getting Electricity' rankings, reflects the Government's steady implementation of effective policy reforms.

Some of the key policies announced in FY 2019-20 include:

- Removal of end-use restrictions for participating in coal mine auctions and open up the coal sector fully for commercial mining by domestic and global companies (The Mineral Laws (Amendment) Bill, 2020)
- Opening and maintaining of adequate Letter of Credit as Payment Security Mechanism (PSM) under Power Purchase Agreements (PPAs) by DISCOMs
- Treating of Letter of Comfort (undertaking) issued by state-run firms, such as PFC, REC and Indian Renewable Energy Development Agency Limited (IREDA), at par with bank guarantees to reduce procedural delays for bidding in clean energy projects
- Removal of tariff cap on solar and wind power auctions

In addition, the Union Budget 2020-21, tabled in the Parliament in February 2020, encouraged state governments to implement smart meters across all households in three years, which will give the consumers the right to choose their power provider and allow DISCOMs mitigate power theft. The budget outlay towards the power and renewable sector was set at ₹ 22,000 crores. This includes an allocation of ₹ 4,500 crores for DDUGY, ₹ 5,300 crores for IPDS, ₹ 40 crores for smart grids, ₹ 33 crores for green energy corridors and ₹ 110 crores for energy conservation schemes, among others. The government also stated that utilities operating thermal power plants that are in violation of the National Clean Air Programme (NCAP), will be advised to close down and that land will be used for alternative energy purposes. This will incentivise the market for Flue Gas Desulphurisation (FGD) plants, which help thermal power plants reduce sulphur emissions.



In June 2020, the government's launched a pan-India Real-Time Market (RTM) in electricity. The RTM will help the DISCOMs manage their power purchase portfolio optimally without needing to tie up excess capacity. It will lead to cost optimisation of power purchase and serve consumers with reliable supply as any last-minute requirement of power can easily be bought from the RTM. It will thus help mitigate challenges to grid management due to the intermittent and variable nature of renewable energy generation and by extension, help integrate higher quantum of renewable energy resources into the grid. Overall, the RTM will result in a shorter bidding time, faster scheduling, and defined processes to enable the participants access resources throughout the all-India grid promoting competition.

Other key reforms such as the UDAY 2.0 or the Atal Distribution System Improvement Yojana (ADITYA) and the Electricity (Amendment) Bill, 2020, are expected to address recurring issues, promote higher participation of private players in the generation, distribution and transmission of electricity, and improve DISCOMs' operational and financial health.

**On the whole, power remains a key enabler of India's economic aspirations and in the current context, an indicator of its recovery.**



## COMPANY REVIEW



Techno Electric & Engineering Co. Ltd. is one of India's leading power infrastructure companies, catering to select segments of the electricity value chain: generation, transmission and distribution. Our business units within these streams consist of Engineering, Procurement and Construction (EPC); transmission asset ownership; and operations and maintenance.

### Operational summary

- Continued to be the foremost transmission and distribution company, leveraging our asset-light model, lean overhead structure, superior cash conversion, strong balance sheet and higher EBITDA margin
- Sustained emphasis on bidding discipline and value-accretive projects
- Completed the transaction to sell our 74% stake in Patran Transmission Company Limited to India Grid Trust at an enterprise value of ₹ 225 crores
- Entered into a definite agreement with CLP India Private Limited to sell our 26% stake in Kohima Mariani Transmission Limited at an enterprise value of ₹ 1,800 crores
- Entered into definite agreement with India Grid Trust to sell 49% stake in Jhajjar KT Transco

Private Limited at an enterprise value of ₹ 3.1 billion

- Focused on winning orders in new and emerging segments, like FGD, smart metering and green energy corridors
- Received an order worth ₹ 125 crores in the implementation of smart metering works at Jammu & Kashmir, which will expand to an order worth of ₹ 205 crores in due course
- Bagged an FGD contract for a 500 MW (1 x 500 MW) Bokaro thermal power project of Damodar Valley Corporation at ₹ 319 crores

### Financial summary

During the year, our consolidated gross revenue stood at ₹ 876.17 crores in FY 2019-20, as compared with ₹ 988.64 crores in FY 2018-19. Our consolidated net profit stood at ₹ 180.22 crores in FY 2019-20, as compared with ₹ 193.16 crores in FY 2018-19.

### Principal risks and uncertainties

We have a robust risk management framework, which identifies and assesses both short-term and long-term risks, and monitors the effectiveness and efficiency the associated mitigation measures. The major risks identified by the Company are listed here.

Nature	Description	Mitigation measure
<p><b>Economic risk</b></p>	<p>Volatility in India's macroeconomic indicators and geo-political events can have a material consequence on the business.</p>	<p>We are conservative in our approach to bidding for new projects and only do so after a careful evaluation of the project's prospects. We also rely on our balance sheet strength to tide over any macro headwinds. Further, our business' diversification into different segments ensures that there is no overdependence on any one sector, safeguarding us from sudden economic downturns.</p>
<p><b>Business continuity risk</b></p>	<p>A major incident or catastrophic event like the ongoing COVID-19 outbreak could impact our everyday operations. The nation-wide shutdown, owing to the outbreak, has disrupted our supply chain and impacted our execution capabilities adversely.</p>	<p>We are closely monitoring the on-ground situation and calibrating our response to the same accordingly. Our priority remains the health and safety of our employees.</p>
<p><b>Industry risk</b></p>	<p>Slowdown in the industry could impact our business sustainability.</p>	<p>We are broad basing our business and exploring niche opportunities across geographies to diversify the risk from high dependence on the Indian power market.</p>
<p><b>Liquidity risk</b></p>	<p>Any delay in receivables could affect our viability.</p>	<p>We transact with financially robust clients who are in a comfortable liquidity position. Majority of our clients comprise reputed Indian corporates. We work with clients, who have projects that have achieved financial closure. Additionally, we select customers that have been favourably appraised by rating agencies. Besides, we have been consistently cash-positive and prudently employ working capital.</p>

Nature	Description	Mitigation measure
<p><b>Segment risk</b></p>	<p>Presence in a single business segment may hamper our growth.</p>	<p>We are widening our segment presence – EPC contracting services and development, operations and maintenance of transmission network – to diversify the risk from excessive dependence on one business segment.</p>
<p><b>Timebound completion risk</b></p>	<p>Any delay in the completion of project could affect our profitability.</p>	<p>We have completed around 400 projects well ahead of delivery schedule. We have a commendable track record and experience with regard to execution and completion of projects undertaken. And we are confident of delivering the same in future as well.</p>
<p><b>Working capital risk</b></p>	<p>Working capital requirement may increase in an event of delayed payments by clients.</p>	<p>We choose to pick orders backed by multi-lateral funding; thus, securing ourselves to a great extent.</p>
<p><b>Price-based competition risk</b></p>	<p>Inability to remain cost-competitive could mean we could out on contracts to sectoral peers.</p>	<p>Our competitive bidding strategy ensures that we are preferred by clients beyond competition.</p>





## Human assets

We foster a culture of fair management practices and endeavour to provide a supportive work culture. We consistently invest in our human capital to attract, train and retain high-performing talent. We continually upskill our people, across our core competencies, to remain relevant in a dynamic operating context. Our engineering team possesses an average industry experience of over 25 years. Our Board, a strong management team and people, together comprise an invaluable mix of veteran engineers and technicians – the biggest driving force of our growth strategy.

## Internal controls and their adequacy

We have an adequate internal control system, commensurate with the size and nature of business, with regard to purchases of inventory and fixed assets and for sale of goods and services. The system is being upgraded continuously in order to meet and adapt to statutory requirements and changing business conditions.

**Cautionary statement:** Statements in the management discussion and analysis describing the Company's objectives, projections, estimates and expectations may be forward-looking within the meaning of applicable laws and regulations. Actual results could differ materially from those expressed or implied. Factors that could make a difference to the Company's operations, inter alia, include the economic conditions, government policies and their related/incidental factors.