

Increased transmission line additions

The transmission segment plays a key role in transmitting power continuously to various distribution entities across the country. The transmission sector needs concomitant capacity addition, in line with generation capacity addition, in order to enable seamless flow of power.

Robust generation capacity addition and the Government's focus on universal electrification and last-mile connectivity have driven significant expansion of India's transmission and distribution (T&D) network. The country's national power transmission network achieved a major milestone on 14 January 2026, crossing 5 lakh circuit kilometres (ckm) of transmission lines (220 kV and above) and 1,407 GVA of transformation capacity. Since April 2014, the transmission network has expanded by 71.6%, with the addition of 2.09 lakh ckm of transmission lines and 876 GVA of transformation capacity. India's inter-regional power transfer capacity has reached 1,20,340 MW, strengthening the vision of "One Nation – One Grid – One Frequency." Further, ongoing interstate and intrastate transmission projects are expected to add around 67,500 ckm of transmission lines and 533 GVA of transformation capacity, supporting the evacuation of increasing renewable energy generation and helping achieve the target of 500 GW of non-fossil fuel-based capacity by 2030.

Furthermore, the Government of India has implemented Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development (IPDS) schemes to achieve the objective of providing uninterrupted power supply by strengthening the sub-transmission and distribution network. The Government of India has also implemented the Pradhan Mantri Sahaj Bijli Har Ghar Yojana- (SAUBHAGYA) with the objective to achieve universal household electrification for providing electricity connection to all willing un-electrified household in rural area and all willing poor household in urban areas in the country. Under these schemes, 18,374 villages have been electrified, and 28.6 million household were provided electricity connection. As a result, 100% villages have been electrified. Besides this, 2,927 new substations have been added, upgradation of 3,965 existing sub stations has been carried out and 8.5 Lac circuit kms of HT and LT lines have been added/upgraded. As a result of these measures, the availability of power in rural areas has increased from 12.5 hours in 2015 to 21.9 hours in 2024. The availability of power in urban areas is 23.4 hours.

The ongoing additions and upgradations in the power infrastructure space will play a vital role in boosting the demand of transmission and distribution equipment, including power cables and conductors as these would be needed to efficiently transmit electricity from these new power generation sources to distribution points.

Power transmission lines (220 kv and above)



Source: CEA, Crail Intelligence

Entry of private players in transmission & distribution space

At present, private sector participation in the T&D space is low. However, with the introduction of tariff based competitive bidding (TBCB) and viability gap funding schemes for intra-state projects, the share of private sector players in the power transmission sector is expected to increase gradually over the long term. This move is purportedly to shift burden from PGCIL and increase private sector participation in the sector, though PGCIL is also allowed to bid for the same. With increased awarding of projects under TBCB in the future, private participants are expected to play a key role in driving domestic power demand, thereby positively impacting the demand of cables including transmission and power cables.

Privatization of discoms to bring about distribution sector expansion

The privatization of power distribution companies (discoms) in India is viewed as a critical reform to address the long-standing issues in the power sector, including inefficiency, financial losses and poor service delivery. Various state power utility companies in India have suffered high indebtedness and bad credit history.

By allowing private players to take over the distribution of electricity, the policy aims to introduce more competitive practices, better management, and technological innovation. Private entities typically have better access to capital, which can drive the modernization of infrastructure, reduce transmission and distribution losses, and improve customer service. This influx of private investment is expected to foster massive expansion in the of the power distribution sector by accelerating grid development, enhancing rural electrification, and supporting the growth of smart meters and automation technologies. Successful examples like Delhi's privatized discoms- Tata Power Delhi Distribution Ltd. (TPDDL), BSES Rajdhani, and BSES Yamuna- highlight the potential of this policy, as these companies have significantly reduced aggregate technical and commercial (AT&C) losses while improving service quality.

The increased efficiency of privatized discoms can result in more reliable power supply, thereby boosting industrial productivity, and meeting the growing demand for electricity across urban and rural areas. Moreover, the privatization initiative aligns with India's broader goals of energy transition, helping to integrate renewable energy sources into the grid while ensuring a stable and sustainable energy supply. Over time, such reforms are poised to attract significant private sector investments, reduce the burden on government subsidies, and create a more resilient and consumer-oriented distribution system.

Late Payment Surcharge (LPS) rules a wakeup call for errant discoms

The Ministry of Power (MoP) introduced Late Payment Surcharge (LPS) Rules on June 3, 2022 to tackle the problem of nonpayment of generator dues by power distribution companies (discoms). The rules enable Power System Operation Corporation Limited (POSOCO) to penalise discoms for non-payment of both current dues and overdues by blocking of their access to the short-term energy market. These rules were formulated to prevent a looming power crisis in the country. State-owned REC has approved financial assistance of Rs 220 billion under LPS rules to enable discoms in several defaulting states to clear their total outstanding dues in 48 monthly installments. The total outstanding dues including Late Payment Surcharge upto the date of the notification of these rules shall be rescheduled and the due dates redetermined for payment by a distribution licensee. This was a voluntary scheme and as per govt. notification of August 2022. Rajasthan, Jharkhand, Tamil Nadu, Maharashtra, Madhya Pradesh and Uttar Pradesh have participated in this scheme. Status of other states are undisclosed as of now. Overdues of discoms after introduction of LPS rules have reduced significantly from over Rs 1,133 billion as of June 2022 to Rs 747 billion as of February 2026.

Discoms outstanding dues to generation companies (gencos) pre LPS (Rs. billion)



Source: PRAAPTI, Crisil Intelligence

Discom outstanding dues to gencos post LPS (Rs. billion)



Source: PRAAPTI, Crisil Intelligence

Overview of smart meters

Smart meters are advanced devices designed to measure electricity, water or gas consumption with precision while enabling two-way communication, allowing real-time data transfers between consumers and utility providers. Unlike traditional meters, smart meters automate the measurement and reporting processes, eliminating manual readings and ensuring accurate billing. Utility providers benefit greatly from improved operational efficiency, better demand management, and enhanced infrastructure monitoring.

Electricity smart meters are at the forefront of modernizing energy management systems. They not only measure electricity usage in real time but also facilitate dynamic pricing models like time-of-use tariffs. Enabling consumers to adjust their consumption based on fluctuating energy costs. For utility providers, electricity smart meters improve grid reliability by supporting load balancing, detecting outages, and enhancing the integration of renewable energy sources such as solar and wind. Additionally, they provide valuable data for optimizing energy distribution, reducing waste, and minimizing carbon emissions.

Under the Revamped Distribution Sector Scheme (RDSS), 203.3 million smart meters have been sanctioned in 28 States/UTs, out of which 46.9 million smart meters have been installed as on 30.07.2026. Under the scheme, distribution infrastructure works, including smart metering works, worth Rs. 2.83 lakh crore have been sanctioned. Implemented largely through a Public-Private Partnership (PPP) model, the programme aims to enhance real-time monitoring of electricity consumption, improve billing efficiency, strengthen energy accounting, and support the integration of renewable energy into the power grid.

To promote domestic manufacturing, smart meters have been brought under the Make in India procurement framework, with a minimum 60% local content requirement, while key Advanced Metering Infrastructure components such as Head-End Systems (HES) and Meter Data Management (MDM) systems require 100% local content from January 2025. The initiative is expected to improve power distribution efficiency, reduce losses, enable prepaid billing, support grid modernization, and facilitate India's clean energy transition.

Smart meters to enhance demand for wires and cables

The adoption of smart meters is driving an increased demand for wires and cables due to the need for robust infrastructure to support their operation. Smart meters require reliable power cables to ensure continuous energy supply and specialized communication cables to transmit data back to utility companies. These cables can include fiber optics, Coaxial cables, or wireless technologies like Wi-Fi and cellular networks. Additionally, data transmission cables are essential for efficiently relaying the collected information to centralized systems for analysis and management. As the global push for smart cities and modernized energy grids grows, the demand for wires and cables that support these smart systems is expected to rise, further fueling the expansion of the wires and cables industry.

Transmission and Distribution reforms planned by the government to revive the sector

The government plans to implement several policies to resolve the issues of the Transmission and distribution segment, as it impacts the entire value chain. Key announcements pertaining to the same are as follows:

- Rs 3 trillion RDSS scheme aiming to improve operational and financial parameters of discoms
- LPS scheme to reduce payment dues from distribution companies to generation companies
- Letter of credit (LC) mechanism was also implemented in August 2019. This order mandated discoms to issue LCs or provide payments upfront before purchase of power. However, success of this scheme has been limited so far, due to various loopholes utilised by discoms and the lower bargaining power of private IPPs
- National Electricity Plan (Transmission)

Revamped Distribution Sector Scheme (RDSS) floated to address long-standing discom stress

Power distribution reforms under the Revamped Distribution Sector Scheme (RDSS) have strengthened the operational efficiency and financial sustainability of DISCOMs across India. Since its launch in 2021, projects worth ₹2.83 trillion have been sanctioned, including investments in smart metering, network modernization, feeder segregation, and substation upgrades. These interventions have improved energy accounting, reduced distribution losses, enhanced revenue realization, and improved the quality of power supply. As a result, DISCOMs have demonstrated notable improvements in both operational and financial performance.

Key Highlights:

- ₹2.83 trillion sanctioned under RDSS, including ₹1.53 trillion for loss-reduction infrastructure and ₹1.31 trillion for smart metering projects.
- 203.3 million smart meters have been sanctioned in 28 States/ UTs, out of which 46.9 million smart meters have been installed as on 30.07.2026
- India's T&D losses have declined steadily from 21.4% in FY17 to 18.0% in FY24 and are projected to reduce further to 16.5–17.5% by FY30, reflecting continued improvements in transmission and distribution efficiency.

Prepaid Smart metering is the critical intervention envisaged under RDSS with an estimated outlay of Rs 1.5 trillion with GBS of Rs 0.2 trillion and 250 million prepaid smart meters are targeted to be installed during the Scheme period. Along with the prepaid Smart metering for consumers, system metering at feeder and DT level with communicating feature along

with associated Advanced Metering Infrastructure (AMI) would be implemented under TOTEX mode (Total expenditure includes both capital and operational expenditure) thereby allowing the Discoms for measurement of energy flows at all levels as well as energy accounting without any human interference.

State/ UT wise Details of funds released under RDSS

State/UT	Total GBS (Rs. Billion)	Total Released under RDSS (Rs. Billion) as on 16.03.2025
A&NI	4.28	0.41
Andhra Pradesh	72.40	24.56
Arunachal Pradesh	9.92	2.47
Assam	41.07	23.91
Bihar	67.48	34.85
Chhattisgarh	32.17	11.69
Delhi	1.96	0.00
Goa	2.43	0.40
Gujarat	65.38	19.11
Haryana	40.76	6.56
Himachal Pradesh	25.61	4.95
Jammu & Kashmir	48.03	21.09
Jharkhand	22.72	5.69
Karnataka	0.27	0.05
Kerala	32.78	4.60
Ladakh	7.88	0.81
Madhya Pradesh	73.47	33.43
Maharashtra	131.82	37.77
Manipur	6.02	1.50

Meghalaya	11.95	2.98
Mizoram	3.51	0.89
Nagaland	4.79	1.14
Puducherry	1.07	0.14
Punjab	32.84	5.64
Rajasthan	129.02	24.61
Sikkim	4.09	1.07
Tamil Nadu	91.39	10.19
Telangana	0.72	0.36
Tripura	6.19	3.02
Uttar Pradesh	165.70	66.03
Uttarakhand	24.44	6.14
West Bengal	64.23	8.98
Sub Total	1,216.38	365.16

Source: Crisil Intelligence

Integrated Power Development Scheme (IPDS)

Government of India launched the Integrated Power Development Scheme (IPDS) in December 2014 under which Distribution Infrastructure projects for strengthening of sub-transmission and distribution networks in urban areas metering of distribution transformers / feeders / consumers in the urban areas, IT enablement works; Enterprise Resource Planning (ERP); smart metering; Gas Insulated Sub-stations (GIS); and, Real Time Data Acquisition System (RT-DAS) were executed.

National Electricity Plan (Transmission)

CEA with the aim of transmitting of 500 GW of Renewable Energy installed capacity by the year 2030 and over 600 GW of Renewable Energy installed capacity by the year 2032, prepared the detailed Nation Electricity Plan (Transmission).

As per the National Electricity Plan, over 1,91,000 CKm of transmission lines and 1270 GVA of transformation capacity is planned to be added during the ten-year period from 2022-23 to 2031-32 (at 220 kV and above voltage level). In addition, 33 GW of HVDC bi-pole links are also planned. The inter-regional transmission capacity is planned to increase to 143 GW by the year 2027 and further to 168 GW by the year 2032, from the present level of 119 GW.

National Electricity Plan (Volume II: Transmission), outlines the development of the transmission system from 2017-2022 and provides a roadmap for 2022-2027, with a perspective on 2027-2032. The plan is based on projected peak electricity demand and anticipated generation capacity additions. Key highlights include:

- Transmission line capacity is expected to increase by 17.7% to 571,403 circuit kilometers (ckm) by 2027, up from 485,544 ckm in 2024.
- By 2032, transmission line capacity is projected to reach 648,190 ckm.
- Substation capacity is expected to grow to 1,881,780 Mega Volt-Amperes (MVA) by 2027 and further increase by 28% to 2,411,885 MVA by 2032, supporting the expansion of the transmission network.

Total transmission line capacity outlined as per NEP



Source: CEA, Cnail Intelligence

3.12 Key policy initiatives by West Bengal in the Transmission and distribution sector

West Bengal power sector reforms transfer scheme, 2007

The West Bengal power sector reforms transfer scheme, 2007 marked a pivotal moment in the restructuring of the state's power sector. This policy unbundled the West Bengal State Electricity Board (WBSEB), creating two separate entities:

West Bengal State Electricity Transmission Company Limited (WBSETCL) - responsible for power transmission

West Bengal State Electricity Distribution Company Limited (WBSEDCL) - responsible for power distribution

This restructuring was designed to improve operational efficiency and management within the power sector, and it was aligned with broader national reforms under the Electricity Act, 2003. These reforms have contributed to a more transparent and accountable power system in the state.

Grid-Interactive Rooftop Solar Photovoltaic (RTSPV) Regulations, 2025

To accelerate rooftop solar adoption, WBERC introduced regulations governing Grid-Interactive Rooftop Solar Photovoltaic (RTSPV) systems. The framework provides clarity on grid connectivity, metering, energy accounting, and power injection into the network, thereby supporting distributed renewable energy generation and strengthening grid modernization efforts.

West Bengal Electricity Regulatory Commission (Modalities of Tariff Determination) Regulations, 2023

The modalities of Tariff Determination Regulations, 2023 were introduced by the West Bengal Electricity Regulatory Commission (WBERC) to provide a clear framework for determining power tariffs across generation, transmission and distribution sectors. Third policy ensures a structured and transparent process for tariff setting, preventing arbitrary pricing. Key features of this regulation include:

- **Tariff Determination for Renewable Energy:** Special Provisions are made for renewable energy projects. For projects below the competitive bidding threshold, the WBERC can specify ceiling tariffs to ensure fair pricing for consumers and encourage the growth of renewables.
- **Hydroelectric and Pumped Storage Tariffs:** Tariffs for hydroelectric projects, including pumped storage, are determined based on the regulated tariff mechanism (RTM) under Section 62 of the Electricity Act, 2003, ensuring stability for long-term power purchase agreements (PPAs)
- **Transmission Tariffs:** The policy includes a detailed framework for determining transmission tariffs, with a focus on adopting a competitive bidding process for large-scale transmission projects, and a clear tariff-setting mechanism for intra-state projects.

Electric Vehicle Policy, 2021

The electric Vehicle (EV) Policy, 2021 focuses on promoting electric vehicles as a key part of the state's sustainable energy transition. The policy encourages the adoption of the EVs and sets up necessary infrastructure for their widespread use. Key features of the policy are:

- **Charging stations:** The policy aims to set up widespread EV charging infrastructure, especially in urban and industrial areas.
- **Subsidies and Incentives:** Financial incentives and subsidies are provided to consumers and companies investing in EVs and associated technologies.
- **Promotion of clean energy:** The policy aligns with West Bengal's broader renewable energy goals by ensuring that EVs use cleaner, renewable sources of energy. It is a part of the state's strategy to reduce carbon emissions and improve air quality.

Alosree Program

The objective of Alosree Program is to install Grid Connected Solar Photovoltaic (GRTSPV) System in all government buildings and buildings of local bodies which are technically fit for such installations. As per the program, the State Nodal Agency which is the WBREDA was to oversee the project. Some of their key responsibilities of the agency involved:

- West Bengal Renewable Energy Development Agency (WBREDA) will get the project done on turnkey basis through vendors to be deployed through tendering process for installation of GRTSPV Systems.
- Handing over the project after commissioning to the local authority to be nominated by the Department.
- WBREDA will ensure warrantee obligation including trouble free operation of the GRTSPV Systems through the vendor for a period of five years from date of commissioning
- Routine & breakdown maintenance of the project as and when required for a period of five years from the date of completion of the project.
- Training for day-to-day operation of the project to the incharges at each of the units/sites/project to be nominated by the local authority.

- Coordination and facilitation to obtain incentive from MNRE, Government of India, if available

Key projects under execution/partially completed in the power distribution sector

Project name	Promoter	Project cost (Rs. million)	Description
Power Distribution (Marigaon) Project [RDSS] - Modernisation	Assam Power Distribution Co. Ltd.	51,969.1	Assam Power Distribution Co. is developing modernisation of power distribution system through implementing Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS) in Assam.
Power Distribution (Jodhpur) Project - RDSS	Jodhpur Vidyut Vitran Nigam Ltd.	8,903.2	The project will aim to reduce loss by segregation of agricultural/mis feeders, feeder bifurcation, reconductoring works, AB cabling, New 33/11 KV power substation, New 33KV lines and New 11KV lines etc.
Power Distribution (Raipur) Project - RDSS	Chhattisgarh State Power Distribution Co. Ltd.	2,133.3	Chhattisgarh State Power Distribution Co. is implementing Revamped Distribution Sector Scheme (RDSS) for distribution infra works and system smart metering works in Raipur district of Chhattisgarh.
Power Distribution (Kodarma, Ramgarh, Chhazribagh & Chatra) Project - RDSS	Jharkhand Bijli Vitran Nigam Ltd.	4,359.2	Jharkhand Bijli Vitran Nigam is implementing Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS) by development of distribution infrastructure like replacement of LT conductor with AB cable feeder segregation, feeder bifurcation, HVDS works and other works at Electric Supply Area Hazaribagh in Kodarma, Ramgarh, Chhazribagh and Chatra districts of Jharkhand on full turnkey basis.
Power Distribution (Chittoor) Project - RDSS	Southern Power Distribution Co. of AP Ltd.	19,414.3	Southern Power Distribution Co. of AP is implementing Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS) by Loss Reduction by Segregation of AGL Feeders and Bifurcation of Overloaded 33 kV Feeders in Chittoor district of Andhra Pradesh on partial turnkey basis.
Power Distribution (Anantapur) Project - RDSS	Southern Power Distribution Co. of AP Ltd.	15,297.7	Southern Power Distribution Co. of AP is implementing Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS) by Loss Reduction by Segregation of AGL Feeders and Bifurcation of Overloaded 33 kV Feeders in Anantapur district of Andhra Pradesh on partial turnkey basis.
Power Distribution (Bhagalpur & Banka) Project - RDSS	South Bihar Power Distribution Co. Ltd.	2,918.2	South Bihar Power Distribution Co. is developing distribution infrastructure for loss reduction component works at Bhagalpur Electric Supply Circle in Bhagalpur & Banka districts of Bihar under Revamped Reformed-Based and Results-Linked Distribution Sector Scheme (RDSS).
Power Distribution (Jamui & Sheikhpura) Project - RDSS	South Bihar Power Distribution Co. Ltd.	2,487.9	South Bihar Power Distribution Co. is developing distribution infrastructure for loss reduction component works at Jamui Electric Supply Circle in Jamui &

Project name	Promoter	Project cost (Rs. million)	Description
			Sheikhpura districts of Bihar under Revamped Reformed-Based and Results-Linked Distribution Sector Scheme (RDSS)
Power Distribution (Ri-Bhoi) Project - RDSS	Meghalaya Power Distribution Corporation, Ltd.	1,335.9	Meghalaya Power Distribution Corpn. is implementing Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS) in Ri-Bhoi district of Meghalaya on turnkey basis. The scope of work will include Reconductoring works, Cabling in natural disaster-prone areas etc

Note: The above list of projects is an indicative list and not an exhaustive list of projects

Source: Projects Today, Crisil Intelligence

3.13 Key risks and challenges impacting the power cables and conductors industry

Rise in commodity prices

Profitability of players in the power conductor segment majorly relies on the input prices of raw material as well as capacity utilization levels of their production plants. Power conductor industry has high working capital requirements, given long gestation periods. The industry's profile is further constrained by the raw material price risk and stiff competition. As raw material cost accounts for nearly 70-75% of net sales, effective inventory management remains critical, especially given the prevalent volatility in global commodity prices. In cable industry too, a prevalent challenge lies in the volatility of raw material prices. Particularly the surge in costs for essential materials like copper, zinc, and aluminium. This price increase significantly affects profit margins within industry.

Aluminium prices (London metal exchange)



Source: LME, Crisil Intelligence

3.14 Weak financial health of state distribution companies

The distribution sector is controlled by state distribution utilities (SDU) with private participation limited to circles such as Mumbai, Ahmedabad, Surat, Delhi, Agra, and Kolkata. State distribution utilities continue to reel under huge losses due to unprofitable tariff structures, high AT&C losses and inadequate subsidies received from state governments coupled with

delays in payments. The sector is marred with financial irregularities due to the nature of the business. Inability to increase power tariffs along with high commercial and technical losses have led to high losses for the discoms.

3.15 Counterfeit products

Counterfeit products pose a severe challenge for cable industry in India. These products are made of subpar materials, posing a series threat in the end-use industry. The counterfeit versions of authentic products spoil brand image and customer trust in the company when these counterfeit versions of authentic products falter. Counterfeit cables may not meet the required safety standards, posing a risk of electrical fires, shocks, and other hazards. Genuine cables are typically designed and tested to comply with safety regulations, but counterfeit products may cut corners to reduce costs. Counterfeiters can also engage in intellectual property theft by copying designs, trademarks, and other proprietary information from legitimate manufacturers. This undermines the innovation and investment made by genuine companies.

3.16 Keeping up with competition and innovations

Keeping up with competition and innovations is a significant challenge for companies in the wire and cables industry. The sector is characterized by a diverse pace of innovations in product development, with new technologies and materials emerging rapidly. To stay ahead of the curve, companies must continuously update their technology and manufacturing processes to compete in the market. This requires significant investments in research and development, as well as a commitment to adopting new materials and production methods. Furthermore, the increasing demand for high-performance and specialized cables, such as those used in renewable energy and electric vehicle applications, has created a need for companies to develop new products and solutions that meet these emerging requirements. Additionally, the rise of digitalization and Industry 4.0 has introduced new challenges, such as the need for cables and connectors that can support high-speed data transmission and connectivity. Moreover, the pressure to reduce costs, improve efficiency, and minimize environmental impact adds to the complexity, making it a challenging task for companies to balance innovation with sustainability and profitability.

3.17 Dependence on government spending

In India the transmission and distribution sector is a three-tiered system comprising of distribution networks, state grids and regional grids. While the demand for power conductors arises from transmission networks and generation associated transmission, the demand for power cable mainly arises from the distribution network (low voltage (up to 33 kV) arial bunched cables). The growth of the power conductors segment is mainly dependent on evacuation systems for power generation capacities. Further, demand for power cables and conductors arises from strengthening of transmission infrastructure. The capex across all these segments is driven by the government and any slowdown in the same will impact the demand for cables and conductors.

3.18 Supply chain disruptions and geopolitical risks

The cable and conductor manufacturers rely on globally traded commodities. Any external disruptions can have impact on the cost and delivery schedules. Over the past few years, numerous global events have impacted the sector and have highlighted the fragility of these supply chains. Disruptions in the supply of raw materials, such as copper and aluminium, have led to price volatility and shortages, impacting the industry's production and profitability.

Since December 2023 Houthi attacks have squeezed the Red Sea-Suez artery. Major carriers have rerouted round the Cape, reducing global container capacity and adding 10-14 days to India-Europe voyages. This has impacted the freight rates, pushing average lead times. Regional conflict in the middle east has kept the pressure high; Israel-Gaza and Israel-Iran hostilities have lifted war-risk premiums, threatening PVC and XLPE feedstock flows critical to insulation lines.

The Ukraine war led to energy shortages and sanctions. This curtailed European smelter increasing copper cost and driving similar spikes in aluminium. Price volatility erodes thin margins and forces Indian manufacturers to hedge larger volumes and stagger purchases.

Geopolitical tensions, particularly between the US and China, have also affected the industry. Taking the example of copper, India relies on copper imports for ~40% of its copper supply. The same is expected to come down as newly operational domestic capacity reduces dependence. However, more than half of global copper smelting capacity is in China. Any disruptions in such upstream supply can lead to increased sea freight rates and extended lead times across the globe.

Trade policy of US has added fresh layers of uncertainty. Washington's decision in June 2025 to double tariffs on foreign steel and aluminium imports to 50% impacted futures markets and arbitrage exports of aluminium rods. At the same time, outbound shipments face headwinds after the European Commission slapped anti-dumping duties on Indian optical-fibre cables.

Together, these developments are reshaping sourcing strategies. Cable makers are locking long-term metal off-take with domestic smelters, qualifying alternate polymer suppliers, and rerouting exports via Jawaharlal Nehru Port–Cape of Good Hope loops.

Crisil

4 Overview of EPC industry in India

4.1 Qualitative overview of structure of EPC Market

Over the years, the infrastructure business has seen various contracting methods evolve. Traditional contracting models have been replaced by new approaches as projects have grown more complex. Gradually, the responsibility for project management has moved from the owner or developer to the contractor.

This shift is evident in the move from owner-managed projects to Engineering, Procurement, and Construction (EPC) contracts. In EPC contracts, the contractor assumes the risks of time and cost overruns, along with the responsibilities for design, material procurement, and construction. These contracts also shield the owner/developer from currency and interest rate fluctuations.

Unlike other contracts where procurement and design are separate processes, EPC contracts integrate them, reducing the overall project duration. Contract which requires heavy financial and technical requirement generally divided into smaller EPC projects.

EPC model



Source: Crisil Intelligence

A typical EPC project covers design, civil works, equipment purchase and installation, and commissioning. Most of the EPC players provide integrated and customised solutions as per the client requirements through a consultative approach. Favourable government initiatives, increased infrastructure development in sectors such as roads, power, railways, irrigation etc have provided impetus to EPC contracts.

4.2 Overview of key client types in Indian EPC industry

In the Indian Engineering, Procurement, and Construction (EPC) industry, clients can be broadly categorized based on their sector and specific requirements. Here are some key client types:

1. Public Sector Institutions

These include government bodies and public sector undertakings (PSUs) involved in large-scale infrastructure projects.

Ministries and Government Departments: Various ministries such as the Ministry of Road Transport and Highways, Ministry of Power, and Ministry of Railways oversee significant infrastructure development.

Public Sector Undertakings (PSUs): Organizations like Oil and Natural Gas Corporation (ONGC), National Thermal Power Corporation (NTPC), and Indian Railways act as major clients for EPC contractors.

2. Private Sector Clients

Private companies across various industries also play a substantial role in the EPC industry.

Industrial Sector: Companies in sectors such as oil and gas, power, petrochemicals, and manufacturing frequently require EPC services for setting up plants and facilities.

Real Estate and Commercial: Real estate developers and commercial establishments often engage EPC contractors for large-scale construction projects.

3. International Clients

Foreign companies and multinational corporations looking to establish or expand their presence in India often require EPC services.

Multinational Corporations: Global players in industries such as energy, automotive, and chemicals may engage Indian EPC firms for their projects in India.

Development Agencies: International development agencies and financial institutions like the World Bank and Asian Development Bank often fund infrastructure projects, requiring EPC services for execution.

4.3 Overview of power EPC in India

A typical EPC project covers design, civil works, equipment purchase installation, and commissioning. However, the scope of an EPC work has been evolved over the years and now may also include O&M (Operation and Management) services. Most of the EPC players provide integrated and customised solutions as per the client requirements through a consultative approach. The overall project works are classified as supply (material) contracts and services contracts. In a comprehensive package, most of the EPC providers offer 3-5 years of O&M services after commissioning of the project and after expiry of the services, the developer executes a separate long-term O&M agreement with a dedicated O&M service provider.

Mechanical, instrumentation, civil, electrical, operations & maintenance (O&M) and annual maintenance contracts (AMCs) are the key type of EPC works undertaken in the Indian power industry

Mechanical works / erection works is the most critical component when building a power plant due to its high complexity, necessitating involvement of highly specialised suppliers/contractors of power generation, material handling and instrumentation equipment. In terms of civil works, construction requires high design prowess and construction capability due to installation of specialized equipment. Instrumentation and electrical works are of medium complexity level, with equipment and power plant operations conforming to uniform industry standards. Environmental clearance is a must for all the projects. As per interactions with industry stakeholders, EPC contracting is the preferred route for power plants due to standardized process of power plant construction. EPC players typically subcontract different packages of civil, mechanical, instrumentation and electrical works, with specialized suppliers / vendors being awarded contracts for supply of equipment's such as boilers, turbines and generators (BTG), heaters and cooling systems.

Below is the overview of types of EPC works that are undertaken in the power sector. It majorly includes Erection, Testing and Commissioning (ETC) power plants, with complete boilers, turbines and generators (ETC-BTG) and balance of plant (BOP) works, for various sizes and scale. It also includes integrated construction services to power plants, which include responsibly sourced gas (RSG) reactors, waste heat recovery boilers (WHRB), circulating fluidized bed combustion (CFBC) boilers, steam turbine generators, steam generators including auxiliaries, electrostatic precipitators (ESPs), hydro turbines and BOP packages, including structural steel works, ash handling, coal handling, fuel oil systems, selective catalytic reduction (SCR) & flue gas desulphurization (FGD), high-pressure piping works

Overview of EPC works across generation, transmission and distribution in the power sector

Civil (15-20%)*	Mechanical/Erection works (50-55%)*	Instrumentation (10-15%)*	Electrical (10-15%)*	O&M and AMC's (0-12%)*	Miscellaneous (~2%)*
Includes Buildings, chimney, cooling tanks, land development, roads & boundary walls, erection and fabrication, substations, foundation for different machinery and material handling, etc.	Erection, testing and commissioning including various complex and heavy engineering equipment - Turbine-generator and boilers, heaters, cooling system, condensing system, SCR and FGD, substations etc.	Instrumentation and process control requirement is high in case of power sector and various equipment involves Distributed digital control monitoring, PLC based control, Control system of boiler, turbine & balance of plant etc.	Electrical systems such as auxiliary transformers, generators, panels, electrostatic precipitators, switchgears and cabling, transmission lines, transmission towers, substations, electrification and distribution etc.	- Operation and maintenance of power plants - Electrical network maintenance - O&M contracts of exports	Other components such as procuring licenses, contingencies, pre-operative expenses, other development costs, etc.

Note: *Figures in brackets indicate estimated break-up of total project cost across various verticals shown above (civil, mechanical, instrumentation, electrical, O&M and miscellaneous)

Source: Crisil Intelligence

4.4 Overview of type of projects, mode of construction and customers in power EPC

Segment	Type of projects	Clientele in the segment
Generation	End-to-end EPC projects for setting of generation power plants or sections of projects which include but not limited to Flue Gas Desulphurization (FGD) Systems, Boilers, Turbine and Generator systems, steam generator and its auxiliaries	- Government and public sector enterprises such as NTPC Ltd - Private power generation companies - Industrial companies for captive usage
Transmission and distribution (T&D)	In T&D projects include but not limited to erection of various sub-stations such as transmission substation, distribution substation and converter substation, construction of transmission lines, underground and overhead distribution power line construction, smart metering	PGCIL, state transmission utilities, power producers, and DISCOMS

Source: Crisil Intelligence

Integrated players in the power EPC industry entails greater operational, financial and managerial benefits

An integrated approach in the power EPC sector offers several strategic advantages that drive operational efficiency, financial performance, and project management capabilities. Additionally, by supplying its own products such as Transformers, cables, conductors, switchgear or power generation equipment, the company ensures a seamless alignment between its product capabilities and the specific needs of the product thereby providing a distinct advantage to the customers. This vertical integration eliminates dependencies on third-party suppliers, reducing the risks of delays, cost overruns, or quality inconsistencies. Moreover, the company's in-depth knowledge of its products allows for better customization, optimization, and technical support, ensuring that the equipment performs efficiently under project-specific conditions. This approach not only enhances operational efficiency and reliability but also simplifies project execution by maintaining tighter control on supply chain. For customers, this translated into a more cohesive and cost-effective solution; improved project timelines, and superior long-term performance of power infrastructure, reinforcing trust and long-term partnerships.

Benefits of being an integrated power EPC player



Source: Crisil Intelligence

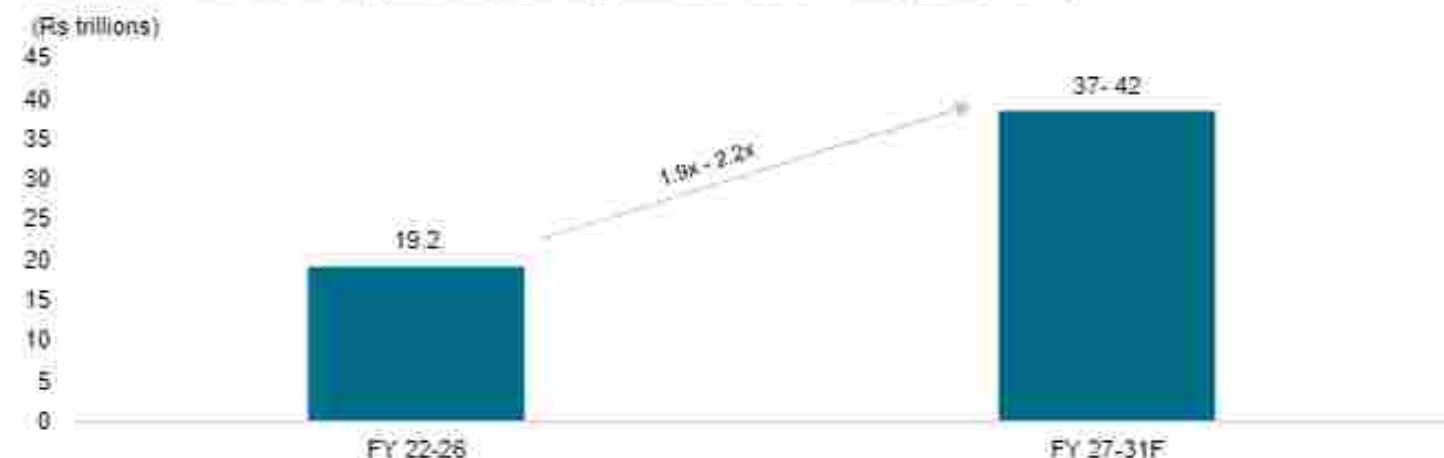
4.5 Investments in Indian power sector

Infrastructure investments in power sector expected to increase moving forward

Crisil Intelligence estimates that investments in India's power sector will see a rise of 1.9x to 2.2x times, increasing from Rs. 19.2 trillion between FY 22-26 to Rs. 37 – 42 trillion during fiscals 2027-2031, driven primarily by the generation segment, followed by transmission and distribution. Power generation is expected to account for 70-80% of total investments, reflecting India's continued commitment to its COP26 targets and clean energy transition. Investments in generation capacity are projected to increase nearly 2.5 times, from approximately Rs. 12 trillion during fiscals 2022-2026 to Rs. 27-32 trillion during fiscals 2027-2031. Renewable energy projects (excluding hydro, pumped storage, and battery energy storage systems) are expected to contribute around 54% of generation investments, supporting the country's goal of achieving 500 GW of non-fossil fuel capacity. To accommodate the rapid expansion of renewable energy, significant investments in transmission infrastructure will also be required, with spending estimated at Rs. 4-5 trillion during fiscals 2027-2031, up from around Rs. 2.6 trillion in the previous five-year period, driven by upcoming interstate and intrastate transmission projects. In addition, the distribution segment is expected to attract Rs. 4-5 trillion of investments over FY 27-

31 vis-à-vis Rs 4.6 Trillion between FY 22-26 , supported by distribution network upgrades and large-scale smart meter deployment aimed at improving efficiency and reducing carbon emissions.

Outlook on power sector segment investments (fiscal 2022-2026 vs fiscal 2027-2031)

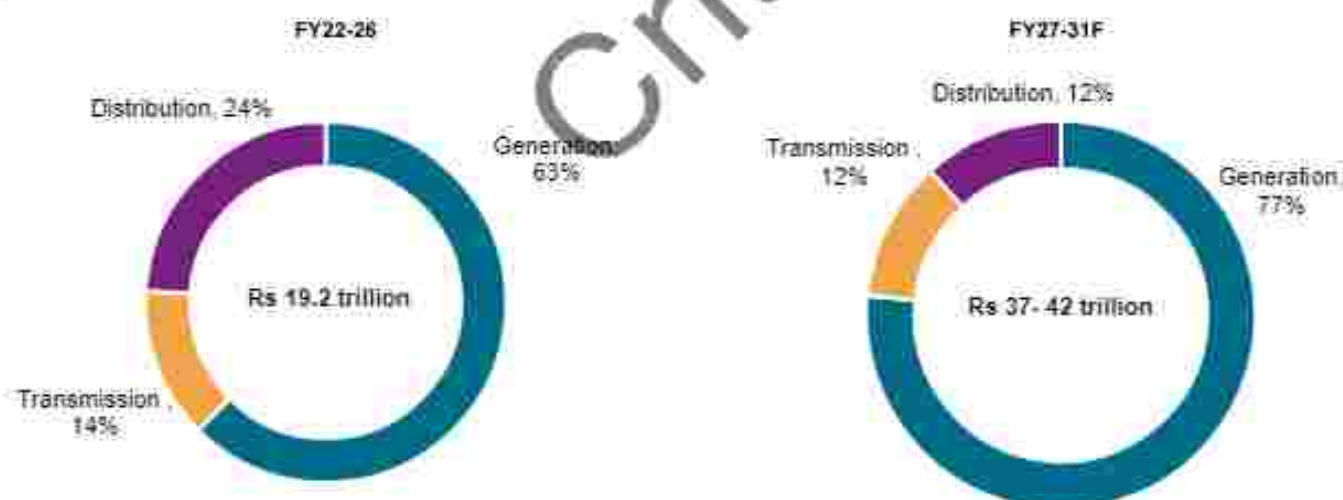


Source: Company filings, CEA, Crisil Intelligence

Generation segments continue to form the highest share in overall power infrastructure

Investments of Rs 27-32 trillion are expected in the power sector over fiscals 2027 to 2031. Generation segment to drive investments with large scale clean energy additions expected followed by distribution and transmission investments.

Segment-wise investment in power sector



Note: The numbers do not include private sector investments in the distribution sector.

Note: Above percentage value may not add to 100% due to rounding off error.

Source: Company reports, state tariff orders, Crisil Intelligence

EPC projects make up 40-50% of investments in the power sector

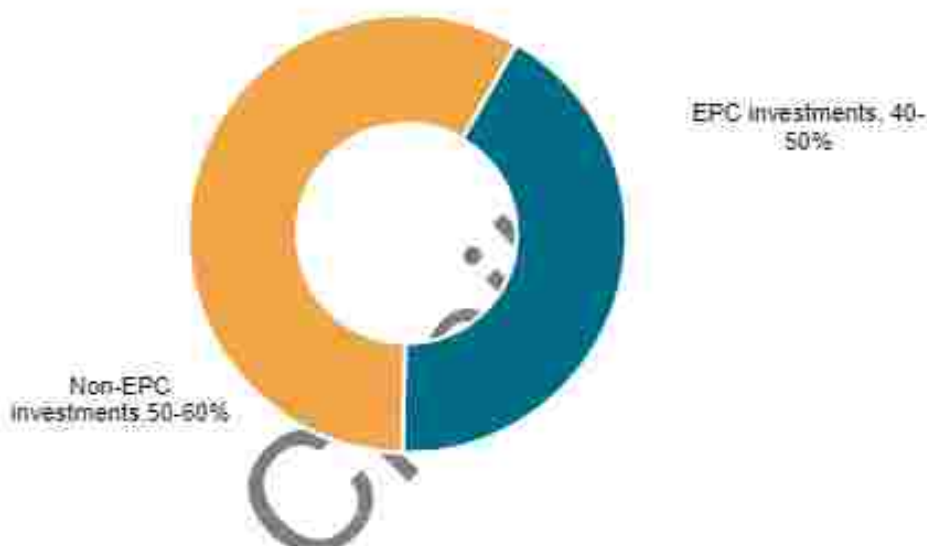
In the power sector, EPC refers to a variety of activities which include design, construction of power plants, substations, transmission lines, procurement of equipment, machinery and materials etc. Projects in the Indian power sector is usually allotted via three primary routes namely EPC, Public Private Partnership (PPP) or the project is executed in-house by the

internal teams. Largely, projects are given out via EPC and PPP route barring a few brown field projects which are taken up in-house by power companies:

Indian power EPC sector has witnessed strong growth over the last few years, driven by the increasing demand for electricity, government initiatives, and rising investments in the sector. Specifically, from the construction point of view, activities involve buildings, chimney, cooling tanks, land development, roads & boundary walls, erection and fabrication, substations, foundation for different machinery and material handling, etc. Most of the small and mid-sized projects in the sector happen via the EPC route, while some bigger projects happen via PPP route on an itemized basis. Some brownfield expansions also happen in-house using internal teams by the companies.

Crisil Intelligence estimates that out of the total investments flowing in the power sector in the country, 40-50% are coming via EPC mode of projects.

EPC investments in the power construction sector



Source: Crisil Intelligence

Working capital cycle in power sector varies across generation, transmission and distribution segments.

Power sector is characterised with distinct working capital cycles in generation, transmission and distribution segments.

Working capital cycle analysis



Generation Segment:

Receivables mainly include dues from discoms on account of energy sold to them, coal stocks form the majority share in inventories (for coal-based power plants) and payments due to raw material providers contribute to payables.



Transmission Segment:

In the transmission segment, charges levied and to be received from the users of the transmission network are key receivables while spares or equipment towards incomplete transmission projects form the majority proportion of inventories.



Distribution Segment:

Distribution companies owe payables to generators, service providers (EPC and other contractors) and towards consumer deposits while receivables for them are on account of delayed payments from power consumers.

Source: Crisis Intelligence

Stronger players such as the central generation entity big power players can effectively manage receivables due to a larger and diversified portfolio, with most of the capacity tied up in firm PPAs. NTPC also maintains Letter of Credits (LCs) at 105% of the average monthly billing and is party to Tripartite Agreements (TPAs) signed amongst the state governments, Government of India, and Reserve Bank of India for recovery of payment dues in case of default from state distribution utilities.

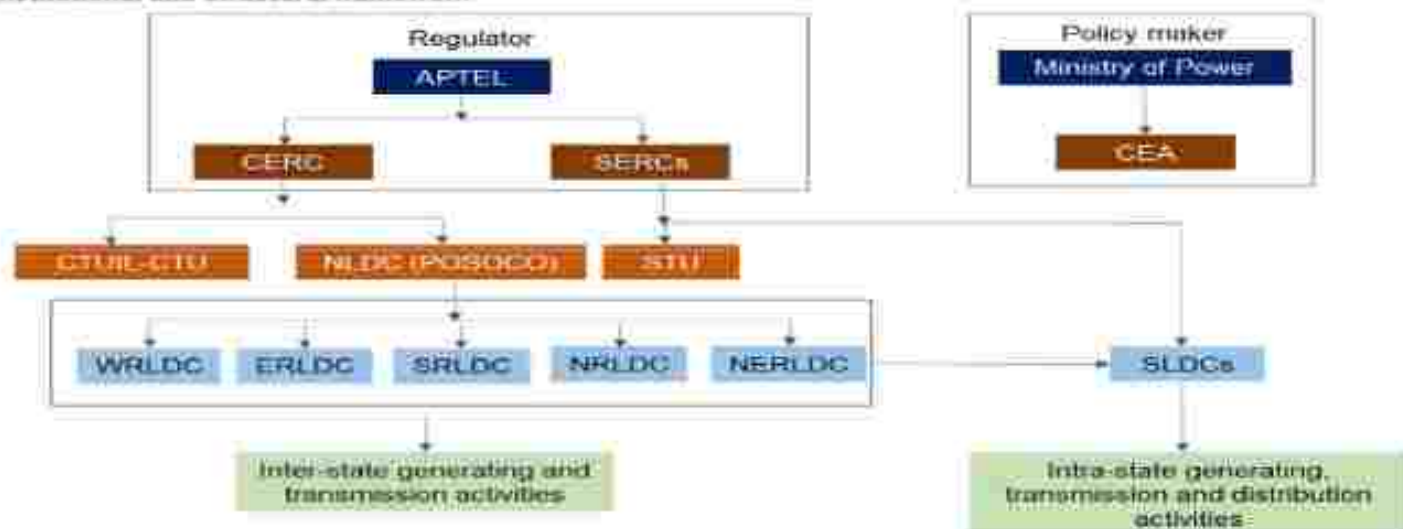
However, smaller entities, especially in the private sector, are more vulnerable to receivables being significantly delayed. Concentration of PPAs with one or two counterparties heightens the risk. While those with untied capacity must also face the vagaries of the short-term power market.

4.6 Regulatory environment

Regulating authorities and agencies in Indian power sector

The sector is highly regulated, with various functions being distributed between multiple implementing agencies. The three chief regulators for the sector are: the Central Electricity Regulatory Commission (CERC), the Central Electricity Authority (CEA), and the State Electricity Regulatory Commissions (SERCs).

Institutional and structural framework



Note. APTEL - The Appellate Tribunal for Electricity; CERC- Central Electricity Regulatory Commission; CEA - Central Electricity Authority; CTUIL- Central Transmission Utility of India Limited; WRDLC - Western Regional Load Dispatch Centre; ERDLC - Eastern Regional Load Dispatch Centre; SRDLC - Southern Regional Load Dispatch Centre; NLDC- National Load Dispatch Centre; NRDLC - Northern Regional Load Dispatch Centre; NERLDC - North-Eastern Regional Load Dispatch Centre; POSOCO- Power System Operation Corporation; SLDC - State Load Dispatch Centre; CTU - Central Transmission Utility; STU - State Transmission Utility

Source: Crisil Intelligence

The Ministry of Power (MoP) works in close coordination with the CERC and CEA. While the CERC's role is more of a regulator for approving tariffs of central utilities, approving licenses, etc., the CEA is primarily a technical advisor focused on planning, i.e., estimating power demand and generation and transmission capacity.

Overview of key schemes in Indian power sector

Generation

India is committed 500 GW of non-fossil capacities by 2030 as a part of its climate commitment goals. To achieve those goals and to drive the solar capacity additions in the country, Govt has introduced various schemes.

Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India (SHAKTI)

In May 2025, the Government approved a revised version of the SHAKTI (Scheme for Harnessing and Allocating Koyala Transparently in India) Policy to simplify coal allocation and improve fuel availability for the power sector. The revised framework consolidates multiple coal linkage mechanisms into two allocation windows, promoting ease of doing business, greater competition, efficient utilization of thermal power capacity, and affordable electricity generation.

The policy aims to expand access to domestic coal for both tied and untied power plants, reduce dependence on imported coal, support the revival of stressed power assets, and facilitate seamless addition of new thermal generation capacity. By improving coal availability and allowing greater flexibility in power sales, the revised policy is expected to strengthen energy security and support India's growing power demand.

Key highlights:

- Two-window coal allocation framework:
 - Window I: Coal linkages at notified prices for Central and State sector generating companies.
 - Window II: Coal linkages through auction at a premium over notified prices for all eligible power producers.
- Greater flexibility for power producers.

- Domestic coal-based generators, whether tied to PPAs or untied, as well as imported coal-based plants, can secure coal linkages for periods ranging from up to 12 months to 25 years.
- Support for energy security and capacity expansion
- The policy encourages optimum utilization of existing power plants, promotes pit-head thermal capacity additions, reduces import dependence, and strengthens India's long-term energy security.

Ultra-Mega Solar Parks

To accelerate large-scale solar deployment and support India's renewable energy transition, the Union Cabinet approved the expansion of the Solar Parks Scheme in February 2017, increasing the target capacity from 20 GW to 40 GW. The enhanced programme envisaged the development of at least 50 solar parks, each with a capacity of 500 MW or more, supported by ₹81 billion in central financial assistance.

The scheme aims to provide developers with ready-to-use infrastructure, including land acquisition and grid connectivity, thereby reducing project risks and accelerating capacity addition. Once fully operational, the planned 40 GW capacity is expected to generate approximately 64 billion units of electricity annually and avoid around 55 million tonnes of CO₂ emissions each year. The initiative has played a crucial role in scaling up utility-scale solar power, strengthening energy security, promoting low-carbon growth, and creating employment opportunities across the renewable energy value chain.

Key Highlights:

- Target capacity doubled from 20 GW to 40 GW, with development of at least 50 solar parks across the country.
- Central financial assistance of ₹81 billion, administered by SECI, to support park infrastructure and grid connectivity.
- Expected to generate 64 billion units of clean electricity annually and reduce 55 million tonnes of CO₂ emissions per year, while boosting investment and employment in the renewable energy sector.

State solar policies

Till 2011-12, only Gujarat and Rajasthan had a state solar policy. Post the success of Gujarat state solar policy, various states such as Andhra Pradesh, Tamil Nadu, Karnataka, Madhya Pradesh and Telangana have also announced solar policies and have invited bids to set up solar projects in past years.

4.7 Key growth drivers and threats in the power EPC

Key growth drivers in the power EPC

Key growth drivers	Description
 Government push towards reducing coal imports	At present, India depends on coal imports along with its domestic production to meet the power demand in the country. In order to reduce the dependence on imports, the government is planning to increase the domestic coal production aiming to increase availability and reduce dependence on imported coal. This would lead to infrastructure growth, in turn boosting the EPC segment
 Increase focus on renewable energy	India has set a goal of 500 GW of non-fossil fuel-based capacity by 2030. In line with this, India has made a significant shift in its energy landscape towards Renewable energy (RE) with more than 70% of new capacity addition came from RE in fiscal 2024. Strong renewable capacity additions are expected to continue through fiscals 2027–2031, taking the renewable installed base to approximately 480–490 GW by fiscal 2031



Development of T&D infrastructure

According to the National Electricity Plan (Volume II), India's transmission infrastructure is expected to expand between FY27 and FY32. Transmission line capacity is projected to increase from 571,403 ckm to 648,190 ckm, an addition of 76,787 ckm (13.4%). Substation capacity is expected to rise from 1.88 million MVA to 2.41 million MVA, an addition of approximately 530,000 MVA (28.2%), indicating continued investment in strengthening the country's power transmission network. This will aid the growth of projects in EPC segment of transmission and distribution.

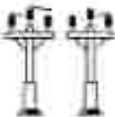


Rising power demand

Renewable energy is projected to account for 52–57% of India's total installed generation capacity, which is estimated to reach 885–895 GW by fiscal 2031. Over the same period, coal's share of the installed capacity mix is expected to decline further to 25–35%, while capacity based on other fossil fuels, including lignite, gas, and diesel, is likely to remain largely unchanged due to limited new additions. This addition of capacities will further aid the construction under power EPC industry.

Source: Crisis Intelligence

Key challenges in the power EPC

Key challenges	Description
 Distribution- Achilles heel in the Indian power sector	Distribution is the final and critical link in the power sector value chain. However, the financial position of the distribution sector has significantly deteriorated over the past decade owing to irregular tariff hikes, high AT&C losses, and delays in subsidy payments by state governments. This has adversely impacted power offtake by distribution companies (discoms). Though government has implemented schemes such as RDSS, Late payment surcharge (LPS) scheme. The impact of these on the distribution sector needs to be monitored. Any further losses would hinder the infrastructure development in the sector.
 Cost overruns and delays	Regulatory complexities specially for land acquisition, permissions/approvals required from multiple agencies may lead to delay in project execution and increased operational costs. Similarly, due to increase in material costs, improper estimation can result in cost overruns. Significant cost overrun may affect the project returns.
 Market competition	The market competition in the EPC sector is intense, characterized by a multitude of competitors competing for the same projects. This coupled with rising input costs will make it difficult for the EPC players to further pass on the costs to their customers. Further, staying abreast of with technologies in power generation and storage poses a significant challenge, necessitating ongoing investments in research and development to remain competitive in the market.

Source: Crisis Intelligence

5 Peer benchmarking

In this section, Crisil Intelligence has analysed some key players operating in the power cables, conductors and power EPC industry in India. Data has been obtained from publicly available sources, including annual reports and investor presentations of listed players, regulatory filings, rating rationales, and/or company websites and social media pages.

Note: The competitive landscape peers mentioned is not an exhaustive list and is an indicative list. Peers have been selected basis the product and service offerings and comparable revenue range.

Overview of peers considered

Some of the key players in the power cables, conductors and power EPC industry in India include Lumino Industries, Apar Industries, Bajel Projects, JSK Industries, Kalpataru Projects International, KEC International, KEI Industries, Sterlite Electric Limited and Universal Cables

Company Name	Year of incorporation	Description
Lumino Industries Limited	2005	Lumino Industries has an experience over 30+ years in the Indian power sector. The company is an integrated engineering, procurement and construction (EPC) player with inhouse manufacturing for conductors and power cables catering to the power transmission, distribution, and electrification sector. Lumino Industries Ltd. has received the UL certification under the Thermoset-insulated wire category for model numbers XHHW, XHH and XHHW-2.
Apar Industries Limited	1989	Apar Industries is a part of the Apar Group, which has presence in the electrical and power sector. Apar Industries Limited is into the production of conductors, transformer oils, polymers, etc. The company caters to various sectors including power transmission, telecommunication, and the automotive industry, etc.
Bajel Projects Limited ¹	2022	Bajel Projects Limited (BPL), which was previously a division of Bajaj Electricals Limited, primarily focuses into Engineering, Procurement, and Construction (EPC) sector. The company is structured into four primary business segments: Power Transmission, Power Distribution, Monopoles, and International EPC. The company also provide solutions to in feeder separation process and irrigation projects, and other comprehensive turnkey projects.
JSK Industries Private Limited	2005	JSK Industries was incorporated in 2005 offers range of aluminium and aluminium alloy rods and conductors, primarily catering to the high voltage power transmission sector.
Kalpataru Projects International Limited	1981	Kalpataru Projects, a subsidiary of the Kalpataru Group, is an EPC player in India. The company execute and delivers infrastructure development projects, encompassing power transmission and distribution, railway systems, and civil engineering initiatives, etc.
K E C International Limited	2005	KEC International is a company of the RPG Group. KEC International is engineering, procurement, and construction (EPC) company, having its presence in segments such as power transmission and distribution railways, water management, and civil infrastructure, etc.
KEI Industries Limited	1992	KEI Industries is into manufacturing of electrical cables, including high voltage, extra-high voltage, instrumentation, and house wiring cables, etc. The company has presence in multiple industries such as construction, utilities, and infrastructure, etc.
Sterlite Electric Limited	2015	Sterlite Electric Limited is a part of the Vedanta-group. Sterlite Power is a power transmission developer and solutions provider and provides multiple solutions

Company Name	Year of incorporation	Description
		including solutions in upgrading, uprating and strengthening power delivery networks
Universal Cables Limited	1945	Universal Cables Limited provides range of products within cables as well as capacitors segment. Its cables and capacitors are known by the brand name 'UNISTAR'.
Techno Electric & Engineering Company Limited	1963	Techno Electric & Engineering Company Ltd. (TEECL) is an power infrastructure company providing EPC, operations and maintenance (O&M), and asset ownership services across the power generation, transmission and distribution value chain.

Note: Year of incorporation as per MCA website

1 Bajel Projects Limited, incorporated in 2022 was formerly a wholly owned subsidiary of Baje Electricals Ltd (BEL). In September 2023, the Engineering & Projects (E&P) or the EPC business of BEL was demerged into Bajel

Source: Company websites, Crisil Intelligence

Operational parameters

Product portfolio

Company Name	Cables	Conductors	Power EPC	Others ²
Lumino Industries Limited	✓	✓	✓	Solar EPC and O&M and Railway EPC
Apar Industries Limited	✓	✓	✓	Speciality oil, Polymers, lubricants, etc
Bajel Projects Limited	N.A.	N.A.	✓	Lighting Poles and Masts, Monopoles, etc
JSK Industries Private Limited	✓	✓	✓	IT- Cyber Security, Digital Substation, Photonics, etc
Kalpataru Projects International Limited	N.A.	N.A.	✓	EPC for Urban Infrastructure and Railways businesses, Buildings & Factories businesses, etc
K E C International Limited	✓	✓	✓	Oil and Gas Pipelines EPC, Civil EPC, etc
KEI Industries Limited	✓	✓	✓	Stainless steel wires, etc
Sterlite Electric Limited	✓	✓	✓	Telecom related services/ EPC
Universal Cables Limited	✓	✓	✓	Capacitors, etc
Techno Electric & Engineering Company Limited	N.A.	N.A.	✓	Renewable

Note:

N.A. stands for not available

¹Cables includes wires

²Not exhaustive but only an indicative list

Source: Company websites, Crisil Intelligence

Presence across Transmission and Distribution EPC

Company Name	Transmission	Distribution
Lumino Industries Limited	✓	✓
Apar Industries Limited	✓	✓
Bajel Projects Limited	✓	✓
JSK Industries Private Limited	N.A.	N.A.
Kalpataru Projects International Limited	✓	✓
K E C International Limited	✓	✓
KEI Industries Limited	✓	✓
Sterlite Electric Limited	✓	N.A.
Universal Cables Limited	✓	N.A.
Techno Electric & Engineering Company Limited	✓	✓

Note: Not exhaustive but only an indicative list

N.A. stands for not available

Source: Company websites, Crisil Intelligence

Geographical presence

Company Name	International Presence ¹ (FY24)	International Presence ¹ (FY25)	International Presence ¹ (FY26)
Lumino Industries Limited	National: 29 states & UTs International: 15 countries	National: 30 states & UTs International: 17 countries	National: 26 States International: 9 countries
Apar Industries Limited	National: 28 states + 8 UTs International: 140+ countries	National: 28 states + 8 UTs International: 140+ countries	National: N.A. International: 140+ countries
Bajel Projects Limited	National: 25 states International: 2 countries	N.A.	National: 15 states + 2 UTs International: 2 countries
JSK Industries Private Limited	National: Yes International: N.A.	N.A.	N.A.
Kalpataru Projects International Limited	National: 24 states International: 45 countries	National: 23 states International: 45 countries	National: 19 States International: 50 countries
K E C International Limited	National: 25 states International: 35 countries	N.A.	National: N.A. International: 110+ Countries ²
KEI Industries Limited	National: Pan India International: 60+ Countries	National: Pan India International: 60+ Countries	National: Pan India International: 60+ Countries ²
Sterlite Electric Limited ²	National: Yes International: Yes	N.A.	National: N.A. International: 70+ Countries ²

Company Name	International Presence ¹ (FY24)	International Presence ¹ (FY25)	International Presence ¹ (FY26)
Universal Cables Limited	National: Pan India International: 19 countries	N.A.	National: N.A. International: 50+ Countries ³
Techno Electric & Engineering Company Limited	National: 22 States International: 2	National: 20 States International: 2	N.A.

Note:
N.A.: Not available
¹ Represents markets served by entity as disclosed in fiscal 2026 annual report by respective companies
² As per Sterlite Electric Ltd fiscal 2023 report, the company exports to 70+ countries. Formula used for calculating exports: External turnover outside India/ (external turnover outside India+ within India)
³ As per respective company's website accessed on July 2026
Source: Annual Report, Company websites, Crisis Intelligence

Manufacturing facilities and capacity

Company Name	Manufacturing Facilities (FY26)	Manufacturing Capacity ^{1,2} (FY24)	Manufacturing Capacity ^{1,2} (FY25)	Manufacturing Capacity ^{1,2} (FY26)
Conductors and Cables focused players				
Lumino Industries Limited	2 ²	Cables and Conductors: 40,000 MT	Cables and Conductors: 40,000 MT	Cables and Conductors: 40,000 MT ¹
Apar Industries Limited	12 ¹	Conductors: 210,000 MT Cables: 6,81,780 KM Alloys / HEC / HTLS: 5,722 KM per month Polymers: 35,000MT per month	Transformer oils ^{1b} : 861,600 KL Conductors ^{1b} : 444,607 MT Cables ^{1b} : 880,176 KM	Production capacity of 7,50,000+ KL in India & 1,75,000+ KL in UAE ^{1a}
JSK Industries Private Limited	1 ²	Conductors ² : Multi Strand (upto 61 strand): 48,000 KM. Seven Strand: 1,90,000 KM Wire Rods ² : EC, Alloy & De-oxi Flipped Coils: 68,400 MT	Conductors ¹² : Multi Strand (upto 61 strand): 48,000 KM. Seven Strand: 1,90,000 KM Wire Rods ¹² : EC, Alloy & De-oxi Flipped Coils: 68,400 MT	Conductors multi-Strand (up to 61 strands) ¹⁷ : 48,000 KM Seven-Strand ¹⁷ : 190,000 KM Wire Rods EC, Alloy & De-oxi Flipped Coils ¹⁷ : 68,400 MT
KEI Industries Limited	5 ⁴	Cables: 141,400 KM House Wires/Winding wires: 1,816,400 KM Communication cable: 28,800 KM Stainless steel: 9,000 MT	Cables: 194,900 KM House Wires/Winding wires: 2,375,000 KM Communication cable: 28,800 KM Stainless steel: 9,000 MT	Cables ^{1b} : 194,900 KM House & Winding Wires ^{1b} : 2,375,000 KM SS Wire ^{1b} : 9,000 MT (9 million kg)
Sterlite Electric Limited*	5 ⁵	Overhead Conductors ^{1b} : 98,146 MT/year Power Cables ^{1b} : 2,400 KM OPGW ^{1b} : 21,000 Km	Overhead Conductors ^{1b} : 117,196 MT/year Power Cables ^{1b} : 2,400 KM OPGW ^{1b} : 21,000 Km	N.A.

Company Name	Manufacturing Facilities (FY26)	Manufacturing Capacity ¹² (FY24)	Manufacturing Capacity ¹² (FY25)	Manufacturing Capacity ¹² (FY26)
Universal Cables Limited	2 ³	XLPE Insulated Medium Voltage Power cables of all types and voltage grades: ~6000 KM/ annum ⁸	N.A.	N.A.
EPC focused players				
Bajel Projects Limited	3 ²⁰	Galvanising: 60,000+ MTPA ⁹	N.A.	Galvanizing Capacity: 40,500 MT/year ²⁰
KEC International Limited	Cables: 2 ¹⁰ Transmission Tower: 6 ¹¹	Global Consolidated manufacturing capacity: 4,32,200 MTPA - Transmission Tower, Poles and Hardware: 3,72,200 MTPA - Railway Structures: 38,000 MTPA - Telecom Tower Structures & Cuplock Scaffolding facility: 12,000 MTPA - Solar Structures: 10,000 MTPA Cables: 69,430 MT - Power Cables: ~42,150 KM per annum - Instrumentation Cables: 3,600 KM per annum - Optical Fibre Cables: 8,00,000 fibre KM per annum - Copper Telecom Cables: 6,00,000 conductor KM per annum - Catenary Conductor: 2,040 MTPA - Contact wire: 3,240 MTPA	Global Consolidated manufacturing capacity: 4,68,200 MTPA - Transmission Tower, Poles and Hardware: 4,08,200 MTPA - Railway Structures: 38,000 MTPA - Telecom Tower Structures & Cuplock Scaffolding facility: 12,000 MTPA - Solar Structures: 10,000 MTPA Cables: 94,630 MT - Power Cables: ~42,150 KM per annum - Instrumentation Cables: 3,600 KM per annum - Optical Fibre Cables: 8,00,000 fibre KM per annum - Copper Telecom Cables: 6,00,000 conductor KM per annum - Catenary Conductor: 2,040 MTPA - Contact wire: 3,240 MTPA - Overhead AL conductors: 25,200 MTPA	Global Consolidated Manufacturing Capacity[*]: 4,83,800 MTPA - Transmission Towers, Poles and Hardware: 4,23,800 MTPA - Railway Structures: 38,000 MTPA - Telecom Tower Structures & Cuplock Scaffolding: 12,000 MTPA - Solar Structures: 10,000 MTPA - Power Cable: ~42,150Km - Instrumentation cables: 3,600 Km - Optical Fiber cables: 8 lakh fiber per annum - Copper Telecom Cable: 6 Lakh conductor km per annum - Catenary conductor: 6,000 MTA - Contact wire: 4,800 MTA - Overhead AL conductor: 34,800MTA - E-Beam & Rubber per Annum: 46,057 Km
Kalpataru Projects International Limited	2 ¹⁰	Tower Structure Fabrication: 2,40,000 MTPA	Tower Structure Fabrication: 2,40,000 MTPA	Tower Structure Fabrication: 2,40,000 MTPA
Techno Electric &	N.A.	N.A.	N.A.	N.A.

Company Name	Manufacturing Facilities (FY26)	Manufacturing Capacity ¹² (FY24)	Manufacturing Capacity ¹² (FY25)	Manufacturing Capacity ¹² (FY26)
Engineering Company Limited				

Note:

MTPA: Metric tonnes per annum; MT: Metric Ton; KM: Kilometres

N.A.: Not Available

The manufacturing facilities mentioned in the above table may not be exclusively allocated to the manufacturing of the specific product and may be used for the production/ manufacturing of other products as well.

* As per FY24 annual report

*As per FY 26 annual report

** As per investor presentation dated May 2026

¹As per Investor Presentation dated January 2026

²As per rating rationale dated June 2026

³As per JSK Industries website accessed in October 2024

⁴As per rating rational dated July 2026

⁵As per Annual Report FY26

⁶ As per Sterlite Electric Limited DRHP dated September 2025

⁷ As per Universal Cables Limited website accessed in July 2026

⁸As per disclosure dated March 2024

⁹Only the capacity details of galvanizing was available in the annual report, the capacity details for manufacturing of lattice structures, steel tubular poles, lighting poles and masts were not available, hence has not been included in the table

¹⁰As per KEC International Ltd fiscal 2025 annual report, total manufacturing plants of the company stands at eight and global manufacturing capacity (Tower, Poles, Hardware, Structures for Railways & Solar) is 4,68,200 MTPA

¹¹The company has 6 transmission tower manufacturing facilities, 3 in India, 1 each in UAE, Brazil and Mexico

¹²Manufacturing capacity details may not be exhaustive as capacity details are not entirely reported by all the peers

¹³As per JSK Industries website accessed in July 2025

¹⁴ Capacity details as per ratings rationale dated April 2025

¹⁵ As per Kalpataru Projects International Ltd website accessed in July 2026

¹⁶ As per rating rationale dated August 2025

¹⁷ As per JSK Industries website accessed in July 2026

¹⁸ As per rating rational dated July 2026

¹⁹ As per Sterlite Electric Limited DRHP dated September 2025

²⁰ As per Annual Report FY 26

Source: Company websites, Crisil Intelligence

Order Book*

Company Name	Order Book as on 31 March 2024 (Rs. million)	Order Book as on 31 March 2025 (Rs. million)	Order Book as on 31 March 2026 (Rs. million)
Lumino Industries Limited	Total: 19,405.66 • Manufacturing: 12,027.56 • EPC: 7,378.10	Total: 24,362.69 • Manufacturing: 10,901.88 • EPC: 13,460.81	Total: 31,498.75 • Manufacturing: 11,579.02 • EPC: 19,919.76
Apar Industries Limited	Conductors: 68,850.00 Cables: 14,360.00	Conductors: 71,630.00 Cables: 16,900.00	Conductors: 76,710.00 Cables: 18,000.00
Bajel Projects Limited	Total: 35,980.00	Total: 29,840.00 ³	Total: 34,420.00
JSK Industries Private Limited	Total: 17,774.00 ¹	Total: 16,029 ⁴	Total: 14,373.00 ⁶
Kalpataru Projects International Limited	Total - 584,150.00	Total - 644,950.00	Total: 654,570.00
K E C International Limited	Total: 296,440.00	Total: 333,980.00	Total: 362,670.00
KEI Industries Limited	Total: 35,978.00	Total: 34,829.00	Total: 35,850.00
Sterlite Electric Limited	Total: 64,830.00	Total: 74,490.00	Total: 80,000.00+ ⁷
Universal Cables Limited	EPC and cables: 13,233.40 ²	EPC and cables: 17,920.00 ⁵	N.A.
Techno Electric & Engineering Company Limited	Total: 37,718.70	Total: 92,189.70	Total: 109,510.00

Note

N.A.: Not Available

* Please note that in the table, wherever 'total' is not explicitly mentioned, the presented numbers may not represent the complete order book data for companies for the respective years.

1 Order book value as on 31.12.2023 as per rating rationale dated February 2024

^ Building and Factories

2 Order book as per ratings rationale dated July 2024

3 Excludes supply orders

4 Order book value as on 28.1.2025 as per rating rationale dated March 2025

5 Order book as on 31.3.2025 as per ratings rationale dated July 2025

6 As on April 30, 2026

7 As per rating rationale dated July 2026

Source: Annual reports, Crisil Intelligence

Financial parameters

Segmental revenue

Company Name	Details of key business activities/ products and services sold by company (accounting for at least 80% of the turnover)	Revenue contribution** FY24	Revenue contribution* FY25	Revenue contribution** FY26
Lumino Industries Limited	1. Manufacturing ^A	65.80%	64.86%	69.74%
	2. EPC ^{A*}	34.40%	35.04%	30.26%
Apar Industries Limited	1. Manufacturing of AAC/ AAAC/ ACSR Conductors	48.00%	49.00%	51.88%
	2. Manufacturing of Transformer & Specialty Oils	29.00%	28.00%	21.93%
	3. Manufacturing of Power/ Telecom Cable	23.00%	25.00%	25.39%
	4. Manufacturing of Polymer	1.00%	1.00%	0.80%
Bajel Projects Limited	1. Engineering, Procurement and Construction of Power Transmission and Power Distribution Infrastructure	100.00%	100.00%	100.00% ²
JSK Industries Private Limited	1. Manufacture of basic Metals ¹	100.00%	85.00%	N.A.
Kalpataru International Limited Projects	1. Transmission & Distribution (provides solutions related to power transmission lines and sub-stations)	32.00%	37.00%	38.62%
	2. Buildings & Factories (execute civil works, design & build composite works, structural works, finishing works, utilities, and area development)	29.00%	31.00%	29.98%
	3. Water (designs and builds water intake, pipeline laying, treatment, storage, supply, distribution, and operation & maintenance of projects)	21.00%	12.00%	9.10%
	4. Railways (services include overhead electrification, traction substations, station buildings, railway track laying, earthwork, workshops, signalling & telecommunication (S&T), power systems, and civil works associated with railway networks and composite railway projects)	9.00%	5.00%	4.80%
	5. Oil & Gas (undertakes EPC contracting for cross-country pipelines, terminals, and gas gathering stations for the oil and	5.00%	9.00%	11.73%

Company Name	Details of key business activities/ products and services sold by company (accounting for at least 90% of the turnover)	Revenue contribution** FY24	Revenue contribution** FY25	Revenue contribution** FY26
	gas sector across diverse territories			
	6. Urban infrastructure (offers EPC services for the design and construction of highways, bridges & flyovers, airports, metro rail corridor stations, transit terminals & hubs)	4.00%	4.00%	4.99%
K E C International Limited	1. Construction/erection and maintenance of power and transmission lines	43.00%	50.00%	59.23%
	2. Construction of railways	17.00%	11.00%	6.20%
	3. Construction of civil engineering projects	25.00%	23.00%	15.98%
	4. Manufacturing of electric wires and cables	7.00%	5.00%	6.38%
	5. Manufacturing T&D structures, distribution poles	N.A.	4.00%	6.56%
	6. Others@@	8.00%	6.00%	5.65%
KEI Industries Limited	1. Manufacturing and selling of Wires and Cables	90.00%	94.00%	93.52%
	2. Manufacturing and selling of Stainless-Steel Wires	3.00%	2.00%	1.80%
	3. Turnkey Projects / Engineering, Procurement and Construction (EPC)* Projects Segment	7.00%	4.00%	4.68%
Sterlite Electric Limited ²	Power product and solutions	76.00%	90.00%	N.A.
	Power transmission grid business	22.00%	8.00%	N.A.
	Others**	1.00%	2.00%	N.A.
Universal Cables Limited	Manufacturing of power (Electrical) and other Cables, Wires and related turnkey projects	95.00%	96.00%	94.07%
	Others@@	5.00%	4.00%	5.93%
Techno Electric & Engineering Company Limited	EPC	98.87%	99.38%	99.55%
	Other ⁴	1.25%	0.62%	0.45%

Note: N.A.: Not Available

The percentages may not add up to 100% due to rounding off

*Includes all proprietary manufactured product sales, whether sold directly or delivered as part of an EPC contract.

**Focused strictly on project management, engineering design, site-services, and the supply of third-party "bought out" items.

**Revenue contribution is considered as disclosed in the respective company's annual report and have not been reclassified by CRISIL.

@@@The company has not provided 100% revenue breakup of key business activities/ products and services sold by company. Therefore, the remaining revenue, has been classified as "Others"

* Excluding Cables

1As per JSK Industries Pvt Ltd. fiscal 2025 annual report, aluminium wire formed 85% of the company's revenue from operation.

2For Sterlite Electric Ltd., the share has been calculated using continued and discontinued segment revenue and excludes eliminations

3 For FY26, Bajel Projects Limited's revenue mix was driven by its Power Transmission segment, which contributed 83.58% of total revenue. This was followed by Power Distribution at 8.59%, Manufacturing Unit at 5.46%, Monopoles at 1.94%, and International EPC at 0.47%

4 Renewable related activity

Source: Company annual reports, filings, Crisil Intelligence

Revenue from operations:

Company Name (Rs. Million)	FY24	FY25	FY26	CAGR (FY24-26)
Lumino Industries Limited	14,073.15	19,179.88	20,410.73	20.43%
Apar Industries Limited	161,529.80	185,812.10	228,021.20	19.07%
Bajel Projects Limited ³	11,692.12	25,982.37	27,915.75	54.52%
JSK Industries Private Limited*	18,301.64	20,191.09	N.A.	N.A.
Kalpataru Projects International Limited	196,264.30	223,157.80	271,430.60	17.60%
K E C International Limited	199,141.70	218,467.00	235,055.40	8.64%
KEI Industries Limited	81,207.28	97,358.77	117,477.65	20.28%
Sterlite Electric Limited ⁴	49,178.94	49,557.60	N.A.	N.A.
Universal Cables Limited	20,206.68	24,063.86	30,226.73	22.31%
Techno Electric & Engineering Company Limited	15,023.81	22,686.61	32,516.33	47.12%

Note:

N.A.: Not Available

*On standalone basis

³ company incorporated in January 2022

⁴The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.

For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23

Revenue from operations is as per respective companies' annual report

Source: Company websites, Crisil Intelligence

Lumino Industries Ltd is the fourth fastest growing player in the conductors, power cables and power EPC industry in terms of revenue from operations CAGR between fiscals 2024 and 2026, among the peers considered for which data was available

Operating EBITDA

Company Name (Rs. Million)	FY24	FY25	FY26	CAGR (FY24-26)
Lumino Industries Limited	1,450.92	2,229.37	2,389.47	28.33%
Apar Industries Limited	15,276.80	15,474.20	18,759.30	10.81%
Bajel Projects Limited*	104.15	592.70	977.09	206.29%
JSK Industries Private Limited*	736.76	1,432.88	N.A.	NA
Kalpataru Projects International Limited	16,285.70	18,341.20	22,399.00	17.28%
K E C International Limited	12,145.70	15,039.00	16,585.70	16.86%
KEI Industries Limited	8,541.85	9,909.63	12,290.44	19.95%
Sterlite Electric Limited^	4,696.92	4,307.81	N.A.	NA
Universal Cables Limited	1,616.82	1,796.03	2,606.41	26.96%
Techno Electric & Engineering Company Limited	2,094.14	3,392.55	4,618.43	48.51%

Note:

N.A.: Not Available

*On standalone basis

^ company incorporated in January 2022

^The company demerged its infrastructure business ("Infra") into its subsidiary company, Sterlite Grid 5 Limited ("SGL5") in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, could not be comparable to fiscals 2023 and 2024.

For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23

Formula used: Revenue from operations- Total expenses+ Finance expense + Depreciation and amortisation expenses.

Source: Company websites, Cnsil Intelligence

Among the considered peers for which data was available, Lumino Industries Ltd was the third fastest growing player between FY24-26 in terms of Operating EBITDA.

PAT

Company Name (Rs. Million)	FY24	FY25	FY26	CAGR (FY24-26)
Lumino Industries Limited	866.07	1,245.88	1,599.99	35.90%
Apar Industries Limited	8,251.10	8,213.00	9,769.30	8.81%
Bajel Projects Limited*	42.87	154.64	69.03	26.90%
JSK Industries Private Limited*	396.49	914.21	NA	N.A.
Kalpataru Projects International Limited	5,159.00	5,872.70	10,306.30	41.34%
K E C International Limited	3,467.80	5,707.40	6,055.90	32.15%
KEI Industries Limited	5,807.33	6,964.14	9,184.33	25.76%
Sterlite Electric Limited^	2,301.27 ¹	1,830.30	N.A.	N.A.
Universal Cables Limited	1,082.25	893.85	1,631.09	22.77%
Techno Electric & Engineering Company Limited	2,684.55	4,229.45	4,738.65	32.86%

Note:

N.A.: Not Available

*On standalone basis

\$ company incorporated in January 2022

^The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.

For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23.

* Profit / (loss) for the year from continuing operations

Source: Company websites, Crisil Intelligence

Among the considered peers for which data was available, Lumino Industries Ltd had been the second fastest growing player between FY24-26 in terms of PAT

Operating EBITDA Margin

Company Name	FY24	FY25	FY26
Lumino Industries Limited	10.31%	11.62%	11.71%
Apar Industries Limited	9.46%	8.33%	8.19%
Bajel Projects Limited ^{\$}	0.89%	2.28%	3.50%
JSK Industries Private Limited*	4.03%	7.10%	NA
Kalpataru Projects International Limited	8.30%	8.22%	8.25%
K E C International Limited	6.10%	6.88%	7.06%
KEI Industries Limited	10.52%	10.18%	10.46%
Sterlite Power Transmission Limited^	9.57%	8.69%	N.A.
Universal Cables Limited	8.00%	7.46%	8.62%
Techno Electric & Engineering Company Limited	13.94%	14.95%	14.20%

Note:

N.A.: Not Available

*On standalone basis

\$ company incorporated in January 2022

^The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.

For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23.

Revenue from operations as is as per respective company's annual report

Formulae used are as follows:

Operating EBITDA % = Operating EBITDA / Revenue from operations

Source: Company websites, Crisil Intelligence

Among the considered peers for which data was available, Lumino Industries Ltd had the second highest operating EBITDA margin of 11.71% in FY26

PAT Margin

Company Name	FY24	FY25	FY26
Lumino Industries Limited	6.08%	6.40%	7.66%
Apar Industries Limited	5.08%	4.40%	4.25%
Bajel Projects Limited [†]	0.36%	0.59%	0.24%
JSK Industries Private Limited*	2.15%	4.49%	N.A.
Kalpataru Projects International Limited	2.62%	2.53%	3.78%
K E C International Limited	1.74%	2.60%	2.57%
KEI Industries Limited	7.12%	7.10%	7.71%
Sterlite Electric Limited [^]	4.64%	3.66%	N.A.
Universal Cables Limited	5.29%	3.68%	5.35%
Techno Electric & Engineering Company Limited	16.38%	17.42%	13.93%

Note:
N.A.: Not Available
^{*}On standalone basis
[^] company incorporated in January 2022
[†]The company demerged its infrastructure business ("infra") into its subsidiary company, Sterlite Grid 5 Limited ("SGI5") in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.
For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23.
Formulae used are as follows:
PAT% = PAT / Total income

Source: Company websites, Crisil Intelligence

Among the considered peers for which data was available, Lumino Industries Ltd had the third highest PAT margin of 7.66% in FY26

RoE%

Company Name	FY24	FY25	FY26
Lumino Industries Limited	21.52%	24.52%	24.62%
Apar Industries Limited	27.01%	19.62%	19.76%
Bajel Projects Limited [†]	0.76%	2.51%	0.98%
JSK Industries Private Limited*	9.57%	19.05%	N.A.
Kalpataru Projects International Limited	13.24%	11.70%	15.80%
K E C International Limited	9.53%	12.87%	11.10%
KEI Industries Limited	20.26%	15.59%	14.76%
Sterlite Electric Limited [^]	16.64%	13.56%	N.A.
Universal Cables Limited	6.62%	5.04%	8.91%
Techno Electric & Engineering Company Limited	13.12%	14.33%	12.00%

Note:
N.A.: Not Available
^{*}On standalone basis

\$ company incorporated in January 2022

*The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.

& Standalone financials have been used for FY21 in the calculation of Average Tangible Net worth for FY22 as consolidation was not applicable in FY21

For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23

Formulae used are as follows:

RoE%: PAT / Average of Tangible net worth

Tangible net worth: Total equity - Intangible assets - Intangible Assets under Development

Source: Company websites, Crisil Intelligence

Among the peers considered for which data was available, Lumino Industries Ltd had the highest RoE% in FY26 of 24.62%.

RoCE%

Company Name	FY24	FY25	FY 26
Lumino Industries Limited	32.27%	31.89%	25.75%
Apar Industries Limited	43.79%	32.76%	31.78%
Bajel Projects Limited [§]	5.32%	11.45%	11.14%
JSK Industries Private Limited*	19.33%	28.03%	N.A.
Kalpataru Projects International Limited	15.85%	15.73%	17.86%
K E C International Limited	15.17%	17.01%	15.33%
KEI Industries Limited	27.49%	21.48%	20.24%
Sterlite Electric Limited [^]	11.31%	21.88%	N.A.
Universal Cables Limited	6.88%	6.79%	8.80%
Techno Electric & Engineering Company Limited	16.50%	16.53%	14.85%

Note:

N.A.: Not Available

*On standalone basis

\$ company incorporated in January 2022

*The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.

& Standalone financials have been used for FY21 in the calculation of Average Capital Employed for FY22 as consolidation was not applicable in FY21

For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23

Formulae used are as follows:

RoCE%: (Operating EBITDA + Other Income - Depreciation and Amortisation cost) / (Average of Capital Employed)

Capital employed: Tangible net worth + Total borrowings (Long Term Borrowings + Short Term Borrowings)

Source: Company websites, Crisil Intelligence

Asset Turnover Ratio

Company Name	FY24	FY25	FY 26
Lumino Industries Limited	18.80	18.62	15.80
Apar Industries Limited	9.76	9.04	N.A.
Bajel Projects Limited [§]	10.12	17.62	9.00
JSK Industries Private Limited*	8.35	8.26	N.A.
Kalpataru Projects International Limited	5.72	5.87	6.13
K E C International Limited	8.27	8.44	8.49
KEI Industries Limited	8.19	7.69	N.A.
Sterlite Electric Limited [^]	5.91	5.28	N.A.
Universal Cables Limited	6.38	6.21	5.73
Techno Electric & Engineering Company Limited	10.78	16.00	N.A.

Note:

N.A.: Not Available

*On standalone basis

\$ company incorporated in January 2022

^The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.

& Standalone financials have been used for FY21 in the calculation of Average Gross Block for FY22 as consolidation was not applicable in FY21. For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23.

Formulae used are as follows:

Asset turnover ratio: Revenue from operations / Average Gross Block

Gross Block = Gross value of Property, Plant and Equipment + Gross value of Right-of-use

Source: Company websites, CIBIL Intelligence

Among the peers considered for which data was available, Lumino Industries Ltd. had the highest asset turnover ratio of 15.80 in FY26

Tangible Net worth

Company Name	FY24	FY25	FY26
Lumino Industries Limited	4,458.55	5,702.88	7,295.81
Apar Industries Limited	38,736.20	44,990.00	53,887.80
Bajel Projects Limited*	5,661.72	6,662.73	7,475.64
JSK Industries Private Limited*	4,341.62	5,253.90	N.A.
Kalpataru Projects International Limited	41,390.30	65,602.90	74,848.00
K E C International Limited	38,038.90	50,644.00	58,509.70
KEI Industries Limited	31,467.27	57,846.95	66,640.64
Sterlite Electric Limited^	12,990.23	14,001.26	N.A.
Universal Cables Limited	17,748.04	17,709.34	18,895.89
Techno Electric & Engineering Company Limited	21,632.31	37,396.46	41,568.77

Note:

N.A.: Not Available

*On standalone basis

\$ company incorporated in January 2022

^The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.

For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23.

Formulae used are as follows:

Tangible net worth: Total equity- intangible assets - Intangible Assets under Development

Source: Annual reports, CIBIL Intelligence

Total Debt

Company Name	FY24	FY25	FY 26
Lumino Industries Limited	409.05	4,188.28	3,841.61
Apar Industries Limited	4,055.40	4,701.40	8,405.10
Bajel Projects Limited [§]	0.00	3,565.86	3,499.61
JSK Industries Private Limited*	137.77	518.95	N.A.
Kalpataru Projects International Limited	39,092.00	41,886.20	33,089.60
K E C International Limited	37,682.80	37,011.00	51,032.30
KEI Industries Limited	1,342.30	1,783.25	1,862.00
Sterlite Electric Limited [^]	7,705.27	3,272.21	N.A.
Universal Cables Limited	7,685.02	8,465.77	11,756.49
Techno Electric & Engineering Company Limited	-	390.92	724.93

Note:
N.A.: Not Available
^{*}On standalone basis
[§] company incorporated in January 2022
[^]The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscal 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscal 2023 and 2024.
For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23.
Formulae used are as follows:
Total Debt: Long Term Borrowings + Short Term Borrowings
Source: Annual reports, Crisil Intelligence

Total Debt / Equity

Company Name	FY24	FY25	FY 26
Lumino Industries Limited	0.09	0.73	0.53
Apar Industries Limited	0.10	0.10	0.16
Bajel Projects Limited [§]	0.00	0.54	0.47
JSK Industries Private Limited*	0.03	0.10	N.A.
Kalpataru Projects International Limited	0.94	0.75	0.44
K E C International Limited	1.00	0.73	0.67
KEI Industries Limited	0.04	0.03	0.03
Sterlite Electric Limited [^]	0.59	0.23	N.A.
Universal Cables Limited	0.43	0.48	0.62
Techno Electric & Engineering Company Limited	-	0.01	0.02

Note:
N.A.: Not Available
^{*}On standalone basis
[§] company incorporated in January 2022
[^]The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscal 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscal 2023 and 2024.
For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23.
Formulae used are as follows:
Total Debt: Long Term Borrowings + Short Term Borrowings
Total Debt / Equity: Total Debt / Tangible Networth
Tangible net worth: Total equity- intangible assets

Source: Annual reports, Crisil Intelligence

Total Debt / Operating EBITDA

Company Name	FY24	FY25	FY 26
Lumino Industries Limited	0.28	1.88	1.81
Apar Industries Limited	0.27	0.30	0.45
Bajel Projects Limited [§]	0.00	6.02	3.58
JSK Industries Private Limited*	0.19	0.36	N.A.
Kalpataru Projects International Limited	2.40	2.28	1.48
K E C International Limited	3.12	2.45	3.08
KEI Industries Limited	0.16	0.18	0.15
Sterlite Electric Limited [^]	1.64	0.76	N.A.
Universal Cables Limited	4.75	4.71	4.51
Techno Electric & Engineering Company Limited	-	0.12	0.16

Note:

N.A.: Not Available

*On standalone basis

§ company incorporated in January 2022

[^]The company demerged its infrastructure business ('Infra') into its subsidiary company, Sterlite Grid 5 Limited ('SGL5') in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.

For Bajel Projects Limited, Financials for FY23 are considered on a standalone basis, while for FY24 and FY25, the financials are considered on consolidated basis. This is because the company reported only standalone financials for FY23.

Formulae used are as follows:

Total Debt: Long Term Borrowings + Short Term Borrowings

Tangible net worth: Total equity- intangible assets - Intangible Assets under Development

Source: Annual reports, Crisil Intelligence

About Crisil Intelligence (formerly Market Intelligence and Analytics)

Crisil Intelligence is a leading provider of research, consulting, risk solutions and advanced data analytics, serving clients across government, private and public enterprises. We leverage our expertise in data-driven insights and strong benchmarking capabilities to help clients navigate complex external ecosystems, identify opportunities and mitigate risks. By combining cutting-edge analytics, machine learning and AI capabilities with deep industry knowledge, we empower our clients to make informed decisions, drive business growth and build resilient capacities.

For more information, visit [Intelligence.Crisil.com](https://intelligence.Crisil.com)

About Crisil

Crisil is a global, insights-driven analytics company. Our extraordinary domain expertise and analytical rigor help clients make mission-critical decisions with confidence.

Large and highly respected firms partner with us for the most reliable opinions on risk in India, and for uncovering powerful insights and turning risks into opportunities globally. We are integral to multiplying their opportunities and success.

Headquartered in India, Crisil is majority owned by S&P Global.

Founded in 1987 as India's first credit rating agency, our expertise today extends across businesses: Crisil Ratings, Crisil Intelligence, Crisil Coalition Greenwich and Crisil Integral IQ.

Our globally diverse workforce operates in the Americas, Asia-Pacific, Europe, Australia and the Middle East, setting the standards by which industries are measured.

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Crisil

Commercial Proposal

Assessment of cables, conductors industries and investments in power sector in India

Consulting

CRISIL/SEPT/JUL/2024

Walking the extra mile, to deliver value

Contents

1. TIMELINES AND DELIVERABLES.....	3
2. CLIENT TASKS	4
3. PROFESSIONAL FEES.....	5
4. TERMS & CONDITIONS.....	7

1. TIMELINES AND DELIVERABLES

The assessment shall comprise of:

Deliverable	Timeline
Draft Report	6 weeks from the date of confirmation
Final Report	1 week after receipt of comments

1. These target timelines are only indicative and subject to changes. CRISIL will notify the client as soon as reasonably practicable if it is necessary to revise the target timelines. In addition to the T&C, the target timelines are subject to:
 - Timely availability of any sourced information; and
 - The client generally cooperating with CRISIL in the provision of the Services.
2. The final document will be in PDF report format



2. CLIENT TASKS

1. The client shall appoint one of its senior level personnel who shall be the project coordinator for the Services (Services Coordinator). The client shall procure that the Services Coordinator shall be the single point of contact for CRISIL for all operational matters relating to the performance of the Services, including matters relating to provision of Client Materials and the following:

- a. Approving on behalf of the client any data collection template or questionnaire developed by CRISIL;
- b. Arranging meetings with relevant persons – whether those of the client or third parties;
- c. Participating at various meetings that CRISIL may from time to time request;
- d. Collating and providing Client Materials in a format and form requested for by CRISIL.

The client may by a reasonable prior written notice to CRISIL replace a Services Coordinator with another of its personnel. The client shall be responsible to ensure the replacement Services Coordinator is properly briefed and updated on the Services.

The instructions and approvals issued by the Services Coordinator shall be binding on the client.

2. On CRISIL's request, the client will appoint/designate a team (Client Team) which will work under the supervision of the client's Services Coordinator. The client will ensure that the Client Team attends and effectively participates in the meetings requested for by CRISIL.

3. Review and Acceptance of Deliverables:

- a. Once CRISIL shares the draft Deliverables, the client shall have [2 weeks] (*Review Period*) to review them and provide its comments to CRISIL, provided that any such comments must be consistent with the agreed Scope of the Deliverables. The Review Period may only be extended by mutual written agreement of the parties.
- b. CRISIL shall consider the client's comments in good faith and take them into account in finalising the Deliverables, at all times using CRISIL's independent professional judgement.
- c. Upon such finalisation, or if CRISIL has received no comments from the client during the Review Period, the client shall be considered to have accepted the Deliverables.

4. Unless otherwise agreed by CRISIL in writing, all correspondence between the parties will be in the English language.



3. PROFESSIONAL FEES

Professional Fee

- Fees:** The lump sum professional fees for the scope of work outlined shall be Rs. 21,00,000/- (INR Twenty One Lakhs only)
- The above quoted price is for the scope of work as defined and is inclusive of costs related to travelling, lodging, boarding and man days spent by CRISIL personnel during primary sourcing/field visits to various industry participants across the value chain etc.
- The above quoted fee is exclusive of GST. GST @18 per cent shall be applicable on the abovementioned fee. In case of any change in Government notification with regard to taxes, revised tax rates would be applicable.

Payment Schedule

- Client shall pay in accordance with the payment schedule set out below:

MILESTONE	FEE (% BREAK-UP)
Commencement Fees	50%
Post report submission	50%

- Client shall pay each invoice within 15 working days from the date of invoice. All payments will be made by cheque or other normal banking channels to the order of CRISIL Limited payable at par in Mumbai. If Client wishes to remit money by online transfer or similar mode, Client may do so to the credit of CRISIL Limited, the details of which are given below:

Name of the Bank	:	ICICI Bank Limited
Account Number	:	003205000032
Account Type	:	Current
SWIFT Code	:	ICICINBBCTS
IFSC Code	:	ICIC0000032
Branch Code	:	000032



Currency of Payment

Charges are payable in Indian Rupees, unless CRISIL expressly agrees otherwise in writing. Where Client remits Charges in a currency other than Indian Rupees, Client shall remit such amount in the remitting currency as would ensure CRISIL receives in Indian Rupees an amount no less than the Charges.

Taxes and Statutory Levies

In addition to Fees, Client shall pay CRISIL all taxes and statutory levies as may apply, such that after paying the applicable taxes and statutory levies (other than those that apply on CRISIL's net income), the Fees that CRISIL receives, is not less than as set out in section 5.1.

Where Client is located in India and makes payment under the Agreement out of its offices in India (and not otherwise) the following provisions shall apply with respect to payment of Fees:

Client may deduct income tax at source from its payment of Fees (and other Charges if applicable) under this Agreement at the least rate required for the Client to comply with applicable tax laws (TDS).

In the case of each TDS, Client shall within the timeline specified under law (or if no timeline is specified under law, within the earlier of 3 months from the date Client deducts TDS or 1 month from the end of the then current taxation year) provide CRISIL with a properly rendered certificate or relevant document evidencing the Client having complied with applicable tax laws with respect to the TDS (TDS Certificate).

If Client fails to provide the TDS Certificate as stated afore, Client shall pay CRISIL such amount as would after TDS be equivalent to the amount covered TDS Certificate not provided by the Client. Client agrees that such amount shall be recoverable as a debt from the Client.

CRISIL Rights

In the event Client fails to pay any Charges when due, the following terms shall apply (without limiting CRISIL's rights under law or the Agreement):

CRISIL shall be entitled to charge and recover from the Client interest at the rate of 18% per annum (applied on a daily basis from the date of the relevant invoice) for each day that, as relevant, the Charges remain overdue (i.e. until the date CRISIL receives the Charges in full).

CRISIL may at its discretion withhold any Deliverables not handed over to Client. However, if CRISIL has anyway provided any Deliverables to Client, it will not operate as a waiver of CRISIL's right to receive payment of Charges. Where CRISIL withholds any Deliverables in accordance with this section 6.5, it shall not be considered a breach of CRISIL's obligations under the Agreement.

Client agrees that it is not entitled to use the Deliverables unless and until Client has paid the Charges in full.



4. TERMS & CONDITIONS

1. Framework

From time to time Client and Consultant or their respective affiliates may execute engagement letters (each an **Engagement Letter**) referencing the GTC. Each such Engagement Letter: (a) will set out the deliverables, report and/or output agreed to be provided (**Deliverables**); (b) shall incorporate by reference the GTC; and (c) together with the GTC (and all relevant annexure or schedules) will operate as an independent contract between the parties executing that Engagement Letter and shall be called **Agreement**. References to "Consultant" and "Client" in the GTC shall refer to the relevant parties executing the Engagement Letter. Where the parties executing an Engagement Letter have agreed to changes to the terms of the GTC as incorporated into the Engagement Letter, the changes shall apply only to that Engagement Letter (and not to any other Engagement Letter). To the extent of a conflict between the GTC and the Engagement Letter, the Engagement Letter will prevail.

The Client engages the Consultant to provide the Services to the Client during the Term (defined below) and the Consultant hereby accepts such engagement upon the terms and conditions contained in the Agreement.

The term, **Project** refers to the assignment under the Engagement Letter comprising the provision by CRIS of the Deliverables. **Services** means the services and Deliverables that Consultant has agreed to provide to Client, under the Agreement.

2. Fees

Client shall pay fees as specified in the Engagement Letter to the Consultant, in accordance with the payment schedule set out in the Engagement Letter.

In addition to fees, Client will: (a) as relevant, pay or reimburse to the Consultant all reasonable out-of-pocket expenses agreed in advance with the Client and incurred by the Consultant in connection with the Project; and (b) pay taxes and statutory levies as apply to the transaction covered by this Agreement.

Unless otherwise set forth in an Engagement Letter, invoices (including those for reimbursements) are payable within 15 days of receipt. Consultant may charge a late fee on overdue amounts calculated at the rate of 1.5% per month commencing with the date payment was due (applied for each day of delay from the date on which the fees fell due).

If Client deducts income tax at source from the payments it makes under this Agreement (**TDS**), Client shall comply with the requirements of law, including providing appropriate documentation in a timely manner (**TDS Certificate**). If Client does not do so, Client shall forthwith on demand pay Consultant such amount as would after TDS be equivalent to the amount covered by the TDS Certificate not provided by the Consultant.

If in relation to an Engagement Letter, Consultant is requested or required to comply with the process of any legal, judiciary, regulatory, government or other authority (each an **Authority**), then Client shall reimburse the Consultant at the then applicable standard billing rates for its professional time and fees including reasonable attorney fees and adviser fees.

The fees and any amounts payable under this Agreement are exclusive of all applicable taxes (including GST), levies, duties etc. Any such tax will be charged over and above the fees and amounts payable to Consultant under this Agreement. The GST registration number ("GSTIN") provided by the Client will be used by Consultant for filing of the GST returns.



With regards to the applicability of Goods and Services Tax, the Client's address as mentioned for the purposes of GST will be considered as the consumption location for the Services provided by Consultant under this Agreement.

Consultant shall not be liable for loss of credit arising on account of incomplete, erroneous or wrong details captured by the Client in the details and documents uploaded to the GSTN. Additionally the Client shall be responsible and liable for providing its correct GSTIN and Consultant will not be responsible for verification of the Client's GSTIN. Where the Client fails to furnish its GSTIN, Consultant will treat the Client as being unregistered for GSTIN.

Where Consultant issues a credit note to the Client in relation to any invoice, the Client shall adjust and upload its Input Tax Credit on the GSTN on or before the end of the month in which the credit note is issued by Consultant to the Client. If the Client fails to do so, and this results in additional liability for Consultant, Client shall be liable to reimburse Consultant for any liability incurred by Consultant (being the tax, interest and any penalties thereon).

The current contract pricing are based on an assumption that GST will apply to the services provided by the Consultant to the Client and the consultant is able to claim credit of the GST charged by its partners, vendors, sub-consultants. In the event that such assumption is incorrect and Consultant is not able to claim GST credit for the services provided to it by vendors, partners or sub-consultants, the consultant reserves its rights to recover from the Client an amount equivalent to 18% or prevailing GST rate on such invoice values to the Consultant.

One-time fees are quoted on a good faith estimate of the time and the effort required to complete the Project. Ongoing fees are subject to annual revisions where work extends to periods beyond a year.

On Consultant's request Client shall in good faith negotiate with a view to agreeing on reasonable revisions to either of the fees stated above. Consultant may terminate the Engagement Letter if the parties fail to agree on such a revision within a commercially reasonable time.

3. Deliverables and Acceptance

The Client shall accept the Deliverables which substantially conform to the requirements as mentioned in the scope of work in the Engagement Letter (*Requirements*).

Client may notify the Consultant in writing within 10 calendar days of Consultant providing the Deliverables to the Client any substantial non-conformity of the Deliverables vis-à-vis the Requirements. Upon receiving Client's notification, the Consultant shall rectify the non-conformity verified by it and resubmit the Deliverables to the Client within 15 calendar days. The Deliverables shall be considered "accepted" upon such re-delivery or the expiry of 10 calendar days as stated above, whichever is earlier.

4. Client Tasks

The Client shall at its own cost do the following in such good time as not to delay or disrupt the performance of the Project: (a) provide all necessary information and material relating to the Project; (b) arrange for all necessary meetings with relevant persons or authorities; (c) render such reasonable assistance (including, where applicable, procurement (or assistance in the procurement of) of any work permits, visas, licenses, consents, etc.); (d) arrange for all necessary material (including, hardware, infrastructure, software licences, etc.).

Without limiting clause 4, if the Consultant is required to obtain any documents in its own name, the Client shall provide such assistance as is required to facilitate such arrangements and shall reimburse to the Consultant any costs incurred in obtaining such documents.

5. Confidentiality



Each party may disclose to the other party non-public information, including technical, marketing, financial, personnel, planning, processes, trade secrets, and other information that is marked confidential or which the receiving party should reasonably know to be confidential (**Confidential Information**). Each receiving party shall keep confidential such Confidential Information and not use it for any purpose other than the parties' dealings with each other. Confidential Information of each party will also include the terms of the Agreement and Services, but not the existence and general nature of the Agreement and Services. The foregoing confidentiality obligations will not apply to a receiving party to the extent it is necessary for the party to disclose the disclosing party's Confidential Information to a statutory, government, regulatory or judicial authority. Confidential Information will not include any information: (a) lawfully obtained or created by the receiving party independently of the disclosing party's Confidential Information without breach of any obligation of confidence, or (b) that enters the public domain without breach of any obligation of confidence, or (c) independently developed by the receiving party without any reference to the Confidential Information. The confidentiality obligations shall be in force during the term of the Agreement and for two years thereafter.

6. Intellectual Property

Consultant Intellectual Property

Client acknowledges that all rights, title and interest in (i) the Deliverables, name, logo, brands (**Brands**) and any pre-existing intellectual property of the Consultant; (ii) unless otherwise expressly agreed in an Engagement Letter, any intellectual property created by the Consultant in the course of performance of this Agreement; and (iii) any know-how used or developed in the course of performance of the Agreement, belong exclusively to the Consultant.

Subject to Consultant having received the whole of the amounts due under this Agreement, Client may use the Deliverables for its own internal business purposes and any other Permitted Use as may be stated in the Engagement Letter. For this purpose, Client may make reasonable number of copies and store copies of the Deliverables.

Consultant shall retain all right, title and interest in and to the reports, methodologies, processes, techniques, ideas, concepts, trade secrets and know-how (all collectively referred to as the **Knowledge Material**) embodied in the Deliverables, developed or supplied in connection with the Deliverables.

Client Intellectual Property

Client exclusively owns all rights in the Brands of the Client and any Data in the form provided by Client.

Neither party may engage in any marketing and publicity that uses the other party's Brands without the other party's prior written consent as to the form and nature of use of the other party's Brands, except that Client consents to Consultant mentioning Client as a Consultant's client and using Client Brands in relation to such mention in Consultant's marketing pitches or individual client presentations other than by way of general advertisements in print or audio-visual media. Consultant will comply with Client's marketing and branding guidelines (as notified) in any such use.

Any goodwill generated by a party's permitted use of the other party's intellectual property will inure exclusively to the other party.

7. Term and Termination

The Agreement shall be for the period stated in the Engagement Letter unless terminated earlier in accordance with the Agreement (**Term**). If no period is stated in the Engagement Letter, the Term shall be the earlier of 1 year from the date of the Engagement Letter or the provision of the Deliverables under the Engagement Letter.



A party may forthwith terminate the relevant Engagement Letter(s) by a written notice to the other party if the other party:

has materially breached its obligations under the Engagement Letter(s) and has not remedied the breach within a month of receiving the party's written notification of the breach;

makes an assignment for the benefit of its creditors, files or has filed against it a petition under any bankruptcy, insolvency, reorganization or similar law, appoints or has appointed against it a trustee or receiver for any of its property or commences or has commenced against it (by resolution or otherwise) the liquidation or winding-up of its affairs, which termination shall be effective immediately upon giving notice.

Consultant will be entitled to terminate the Agreement by giving 15 days' notice to the Client in case (i) Client fails to pay the amount due against a correct invoice, 30 days after the same becomes due and payable; (ii) if the provision of Services or Deliverables are delayed for the reasons attributable to Client, including but not limited to, Client's failure to perform its obligations under clause 4 for a period beyond 2 months from the date of this Agreement and Client's failure to remedy it this failure within 30 days or within such further period as Consultant may have subsequently approved in writing.

Notwithstanding anything to the contrary stated in this Agreement, Consultant shall not be obliged to perform its services or submit any further Deliverables where Client is in breach of its payment obligations under this Agreement.

Survival

The respective rights and obligations of the parties under Clauses 1, 2 (to the extent of any unpaid dues), 5, 6, 9, 8-16 shall survive any termination of this Agreement.

8. Project Delay, Suspension or Cancellation

If for any reason (other than Consultant's material breach of the Agreement), the Project is suspended, deferred and/or cancelled, then:

all amounts paid to the Consultant until the effective date of suspension, deferred and/or cancellation shall be considered 'drop dead fee' and such fee shall not be refundable; and

Client shall in addition, pay Consultant all amounts otherwise payable under the Engagement Letter for work done up to the date of suspension, deferment or cancellation.

Client acknowledges this does not grant the Client a right to suspend, defer or cancel the Project but is stated as Consultant's rights and are liquidated damages.

9. Data

All records, data files (and the data contained therein), reports and other materials which relate exclusively to the Client's business that is received, computed, developed, processed or stored by the Consultant for the Client (collectively the **Data**) will be the exclusive property of the Client. Consultant may use the Data as necessary for providing the Services under this Agreement.

In the event that the Consultant retains Data belonging to the Client, it will use its commercially reasonable efforts to safeguard such Data, exercising a reasonable standard of care, to at least the same extent it protects its own similar materials. The Consultant will not use any Data for any purpose other than in support of its obligations to the Client except that Consultant may use Data only in the aggregated form such that it would not be possible to derive the original Data back to the Client.



The Consultant will not sell, assign, lease or otherwise dispose of to third parties either the Data or any part thereof.

10. Notices and Disclaimers

The Deliverables are subject to the standard notices and disclaimers of the Consultant. Where Consultant has permitted Client to share the Deliverables, Client will reproduce the latest approved notices and disclaimers of the Consultant on each copy of the Deliverable shared by the Client proximate to the Deliverable. Consultant may revise the notices and disclaimers by a prior written notice to the Client. The current notice and disclaimer is given below:

CRISIL MI&A has prepared the report, deliverable or any output ("Report") based on the information obtained by CRISIL MI&A from the Client and/or sources which it considers reliable. By accessing and using the Report the user acknowledges and accepts the following: While CRISIL MI&A takes reasonable care in preparing the Report, CRISIL MI&A does not guarantee the accuracy, adequacy or completeness of the Report and/or their suitability for any specific purpose. CRISIL MI&A is not responsible for any errors or omissions or for the results obtained from the use of the Report. The information contained in the Report is general information and is not intended to be an advice or recommendation on any particular matter, including, without limitation with respect to (a) the legality of (or legal or regulatory requirements with respect to) any part of the Project or any resource used in the Project; (b) the proper functioning or utilisation of funds or realisation of the Project (as relevant) by the Client or suitability of the Project; (c) ownership or rights of the Client or any third party with regard to the Project. CRISIL MI&A expressly states that neither it nor its directors, employees and representatives accept any liability with regard to any access, use of or reliance on, the Report and that CRISIL MI&A expressly disclaims all such liability. No part of this Report shall be quoted out of context or in the manner that it distorts its context or meaning. CRISIL or its associates may have other commercial transactions with the company/entity."

11. Warranties, Indemnity, Liability

Consultant will use reasonable skill and care in providing the Services. Except as expressly stated above, the Consultant does not make any warranties, conditions, or representations to Client, any of its affiliates, or any other party with respect to the work product or any services, whether oral or written, express, implied, or statutory.

Client acknowledges and agrees that to the fullest extent permitted by law: (a) in no event shall the Consultant be liable for any special, indirect, incidental, exemplary, or consequential damages or loss of goodwill including without limitation, loss of use, loss of profit, loss of production, loss of interest, business interruption, or the failure of essential purpose, even if Consultant has been notified of the possibility or likelihood of such damages occurring; and (b) without limiting the foregoing, in no event will the aggregate liability of the Consultant ever exceed the amount of fees paid by Client to Consultant pursuant to the Engagement Letter to which the claim relates during the twelve (12) month period immediately preceding the date such claim arose.

The Client shall indemnify and hold harmless Consultant and its affiliates and group entities, and their respective shareholders, officers, directors, employees and agents from and against all claims, actions, proceedings, demands, liabilities, losses, damages, costs and expenses (including without limitation legal fees) arising out of or in connection with the Agreement except for those due to their breach of this Agreement.

12. Governing Law and Jurisdiction

Unless otherwise stated in an Engagement Letter, (a) the Agreement shall be governed and construed in accordance with the laws of India, (b) the parties submit to the non-exclusive jurisdiction of the courts of law in Mumbai. However, except in relation to the matters set out in this clause 12 below, before a party initiates litigation before the relevant court:



The parties will, upon the written notification of a party regarding the existence of a dispute, first attempt to resolve it by causing their respective senior officers to discuss and make good faith attempts to resolve the dispute.

The parties must have failed to resolve the dispute for any reason within 1 month (or such other extended time as the parties may agree in writing) of a party notifying the other party in writing the existence of a dispute and the need to resolve it in accordance with clause 12.

Nothing in this clause 12 limits a party's right to seek any interlocutory, injunctive or other equitable relief in any court of law.

13. Conflict of Interest and Anti-Bribery

The Consultant shall hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

Unless as otherwise agreed in the Engagement Letter or except reimbursements for out of pocket expenses, the receipt of the Fees pursuant to Clause 2 shall constitute the Consultant's only payment in connection with this Contract and, the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder.

The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, shall be disqualified from providing goods, works or non-consulting services resulting from or directly related to the Consultant's Services for the preparation or implementation of the project as specified in the Engagement Letter, unless otherwise agreed by the Client.

The Consultant shall not engage in any business or professional activities that would conflict with the activities assigned to them under this Contract.

The Consultant shall disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of the Client.

The Consultant represents, warrants and undertakes now and hereafter that (a) It has not and shall not commit, procure, or encourage bribery in relation to this Agreement, the Services, or to obtain or retain business or any advantage in business for the Client, and has and shall ensure to the fullest extent possible that its employees and agents and others under its direction or control do not do so. For the purposes of this clause it doesn't matter if the bribery is (i) direct or through a third party; (ii) of a public official or a private sector person; (iii) financial or in some other form; or (iv) relates to past, present, or future performance or non-performance of a function or activity whether in an official capacity or not.

Each Party represents, warrants and undertakes that:

- (a) it has not and shall not offer, promise, give, encourage, solicit, receive or otherwise engage in acts of bribery or corruption in relation to this Agreement (including without limitation any facilitation payment), or to obtain or retain business or any advantage in business for any member of its group, and has and shall ensure to the fullest extent possible that its employees and agents and others under its direction or control and directly involved in providing Services under the Agreement do not do so. For the purposes of this clause it does not matter if the bribery or corruption is (i) direct or through a third party; (ii) of a public official or a private sector person; (iii) financial or in some other form; or (iv) relates to past, present, or future performance or non-performance of a function or activity whether in an official capacity or not, and it does not matter whether or not the person being bribed is to perform the function or activity to which the bribe relates, or is the person who is to benefit from the bribe. For the purposes of this clause, a "person" is any individual, partnership, company or any other legal entity, public or private.



- (b) Each Party shall adhere to applicable anti-bribery and corruption laws.
- (c) Each Party shall, immediately upon becoming aware of them, give the other Party all details of any non-compliance with Clause (a) and Clause (b).
- (d) It is a condition of this Agreement that each Party fully complies with this Clause. If it does not do so, without prejudice to any other remedy available to a party, the non-breaching party shall have the right (but not the obligation) in its absolute discretion to terminate the whole of this Agreement, or that part of this Agreement to which the bribery or corruption relates. For the avoidance of doubt, any breach of this Clause shall be deemed to be incapable of remedy.

14. Sanctions

As of the date of this Agreement, (a) neither the Client nor any of its subsidiaries, or any director or corporate officer of any of the foregoing entities, is the subject of any economic or trade sanctions or restrictive measures issued by the United Nations, United States or European Union ("Sanctions"), (b) the Client are not 50% or more owned or controlled, directly or indirectly, individually or collectively, by one or more persons or entities that is or are the subject of Sanctions, and (c) to the best of the Client's knowledge, no entity 50% or more owned or controlled by a direct or indirect parent of the Client is the subject of Sanctions. For purposes of clause (c) in this section, "parent" is a person or entity owning or controlling, directly or indirectly, 50% or more of the Client. For so long as this Agreement is in effect, the Client will promptly notify CRISIL if any of these circumstances change. If CRISIL reasonably determines that it can no longer provide the services to the Client in accordance with applicable law, then CRISIL may terminate this Agreement, or any particular services, immediately upon written notice to the Client.

15. Notices

Notices between the parties relating to the Agreement must be in writing and must be delivered personally or sent by post, courier or facsimile to the latest published contact address of the relevant party.

16. Non-Exclusivity

The Client acknowledges that CRISIL or its associates, affiliates or subsidiaries may have other commercial engagements/transactions with the Client or with any of its associates, affiliates or subsidiaries. The Client hereby acknowledges and agrees that nothing in this Agreement shall prohibit CRISIL from continuing to provide services similar to the Services to other companies/entities.

17. General

The Client acknowledges that Consultant or its associates, affiliates or subsidiaries may have other commercial engagements/transactions with the Client or with any of its associates, affiliates or subsidiaries. The Client hereby acknowledges and agrees that nothing in this Agreement shall prohibit the Consultant from continuing to provide services similar to the Services to other companies/entities.

This Agreement constitutes the entire understanding of the parties concerning the subject matter to which it pertains and supersedes any and all prior oral or written representation, understanding or other contracts relating thereto. No modifications, additions, or amendments to the Agreement shall be effective unless made in writing as an addendum to the Agreement and signed by duly authorized representatives of the parties.

As at the date of this Agreement, Consultant is not aware of any conflict of interest which may impair its ability to perform its obligations under this Agreement in an objective manner. If in the future, such a conflict of interest arises, Consultant will take commercially reasonable steps to avoid such conflict of interest suitably (by way of example, by having Chinese Walls or such other measures) and if the adverse impact of the conflict of interest



cannot be avoided at all, Consultant will discuss with Client and take suitable steps in consultation with Client (and the parties agree to be bound by such decision that Consultant and Client may mutually take, including where such decision may result in a modification of this Agreement).

Consultant may engage subcontractors to perform any part of the Agreement, however, Consultant continues to be responsible for its obligations under this Agreement.

This Agreement shall inure to the successors in business of a party. A party may assign, novate or transfer this Agreement with the prior written consent of the other party (which will not be unreasonably withheld or delayed), however, Consultant may assign, novate or transfer this Agreement to any of its affiliates by a written notice to Client.

Neither party shall be liable to the other for failure or delay in the performance of a required obligation, excluding payments due, if such failure or delay is caused by strike, riot, fire, flood, natural disaster, or other force majeure cause. If a force majeure cause continues for more than 2 months, either party may terminate this Agreement by a written notice to the other.

If any non-fundamental term or provision of this Contract is determined to be illegal or unenforceable, such term or provision shall be deemed stricken, and all other terms and provisions shall remain in full force and effect. In such a case, the parties will in good faith negotiate with the intent to agree on alternative provisions that are lawful and which seek to achieve the intent of the provision deemed illegal or unenforceable.

This Agreement does not require the Consultant to (and the Consultant does not) give any investment advice in relation to or participate in the marketing of any of the financial products sold by any member of the Client or its affiliates to actual or prospective investors therein.

Unless the right of enforcement is expressly granted in writing, it is not intended that any provision of the Agreement shall be enforceable by any person who is not a party to the Agreement.



Please return to us the enclosed duplicate of this Letter duly signed by you in acceptance hereof.

We agree, accept and confirm

For CRISIL Research, a division of CRISIL Ltd.	For Client Name : <i>Lumina Industries Ltd</i>
Authorised Signatory <i>[Signature]</i>	Authorised Signatory <i>[Signature]</i>
Name: Vishal Kumar	Name <i>Darvendra Goel</i>
Designation: Associate Director, Business Development	Designation: <i>Managing Director</i>
 Company Stamp	Stamp 
DATE: 10 th September, 2024	DATE:

About CRISIL Market Intelligence & Analytics

CRISIL Market Intelligence & Analytics, a division of CRISIL, provides independent research, consulting, risk solutions, and data & analytics. Our informed insights and opinions on the economy, industry, capital markets and companies drive impactful decisions for clients across diverse sectors and geographies.

Our strong benchmarking capabilities, granular grasp of sectors, proprietary analytical frameworks and risk management solutions backed by deep understanding of technology integration, make us the partner of choice for public & private organisations, multi-lateral agencies, investors and governments for over three decades.

About CRISIL Limited

CRISIL is a leading, agile and innovative global analytics company driven by its mission of making markets function better.

It is India's foremost provider of ratings, data, research, analytics and solutions with a strong track record of growth, culture of innovation, and global footprint.

It has delivered independent opinions, actionable insights, and efficient solutions to over 100,000 customers through businesses that operate from India, the US, the UK, Argentina, Poland, China, Hong Kong, UAE and Singapore.

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