

JOB DESCRIPTION

Position Title	Assistant / Deputy Manager - Technical Support
Superior Position Title	Senior Manager - Technical Support
Entity	Apraava Renewable Energy Private Limited
Division / Department	Technical Support
Location	Mumbai

1. JOB PURPOSE

Business Context: Apraava Energy is a diversified power company, jointly owned by the CLP Group - one of the largest investor-owned power businesses in Asia and Caissede dépôt placement du Québec (CDPQ) - a global investment group.

Our portfolio comprises 3,150 MW of installed capacity which includes 924 MW of wind and 250 MW of solar energy projects across seven states, a 1320 MW coal-fired super critical power plant and two power transmission assets. We forayed into Advanced Metering Infrastructure (AMI) by winning the first project in Assam to install smart meters in 693,077 households.

The name Apraava Energy has been derived from the Sanskrit language and is an amalgamation of four elements: Agni (Fire), Prithvi (Earth), Ambu (Water) and Vayu (Wind).

Apraava Energy was one of the first company to identify the potential of renewable energy in India. The company entered this space by building its first wind farm in 2009. Since then, Apraava Energy has gradually grown its wind energy portfolio and is now spread across six states generating nearly 1,000 MW and another 250 MW of committed capacity. Wind energy has been an integral part of Apraava Energy's business strategy. It is expected to continue making a vital contribution not only to Apraava Energy's growth plans for India but also to its commitment towards reducing its CO2 emissions.

Apraava Energy forayed into solar power generation with a 100 MW plant in 2016 through a joint venture in Veltoor, Telangana. Apraava Energy acquired two more solar plants in 2018. In 2020, Apraava Energy increased the size of its solar energy portfolio by more than 70% by entering into an agreement to acquire three of its solar projects. The latest addition to Apraava's solar portfolio was a 250 MW solar farm in Dedasari, Rajasthan in 2021.

In line with Apraava Energy's vision of investing in a low-carbon and clean energy portfolio, Apraava Energy marked its entry into the power transmission sector in 2019 with the acquisition of 240 km transmission line. With this, Apraava Energy has broadened its portfolio to straddle two out of the three main segments in India's power value chain. In December 2021 Apraava Energy acquired a 254 km Transmission line from Kalpataru-Mariani Transmission Limited passing through 3 states in North- East India i.e. Manipur, Nagaland and Assam.

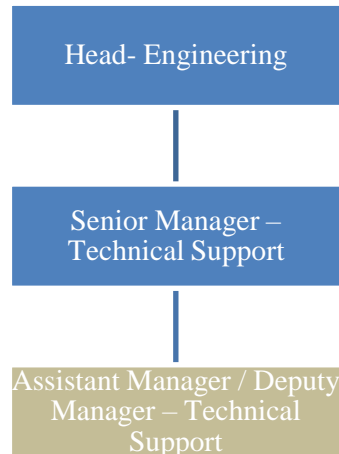
The company has also built a 1,320 MW supercritical coal-fired power plant in Jhajjar, Haryana. The Jhajjar Power Plant has been commercially operational since mid-2012. It is one of the first few power plants in India to operationalize the Flue Gas Desulphurization (FGD) unit which helps reduce ~ 85% of SO2 emissions. The plant has also won the Frost & Sullivan and TERI Jury Special Mention Award in 2019 for reducing its specific water consumption to 2.11 m³/ MWh against a statutory limit of 3.5 m³/ MWh.

The Organization is engaged in Greenfield development of Power Generation/Transmission assets as well as their Acquisition. The business objectives in either case can be met only if the asset performs to the business assumptions. Engineering plays a key role in translating that business assumptions into engineering designs which can make sure that business objectives are met sustainably.

The organization is further diversifying into Power distribution business including Advanced Metering business. This would uniquely position organization's presence across the entire power sector value chain.

Job Purpose: The position exists in order to provide engineering services and technical support in all the tasks/projects related with civil engineering for all its asset types aimed at ensuring organic growth of the company through Greenfield/ M&A projects and improving asset quality, asset availability and profitability in compliance with best engineering practices, HSSE norms and Apraava Energy policies.

2. ORGANISATIONAL CHART



3. PRINCIPAL ACCOUNTABILITIES:

Accountabilities	Major Activities
Design / Engineering & Technical Due Diligence of Solar, Wind, Transmission - Greenfield & M&A projects	<ul style="list-style-type: none"> • Provide technical support for multiple Apraava Energy projects like wind, solar PV, Transmission & Distribution (T&D) and other associated projects in area of Civil and foundation engineering • Prebid engineering support- undertake the site visit and prepare the project feasibility report with respect to Land development, land suitability for multiple RE projects • Finalizing Civil engineering specifications requirements in reference to RFP /tender document and Prepare the OTR (Owners technical requirement) • Preparing the surveys of quantities according to the site condition and provide inputs for land development and civil foundation suggest cost control strategies such as reduction in earthwork construction, foundation, ground improvement works. • Provide input in design, engineering of, structures, structural piles and foundations for grid connected renewable energy development projects in Transmission and Distribution, wind, PV systems and energy storage systems • Review and approve the design basis reports, structural and Civil engineering drawing submitted by engineering consultant and provide inputs for value engineering and optimization of drawings ensuring the applicable IS standards and regulations. • Design, preparation, and review of indoor/outdoor equipment layout includes general arrangement, control rooms, access roads, drainage design, civil interface/civil guides drawing execution drawings for AIS/GIS High voltage substations and other renewable projects. • Design, preparation, and review of cable trenches, cable tray/ladder and conduits routing for overall substation and all other renewable projects. • Design optimized substation & buildings layouts integrating all the required equipment considering their installation, operation, and maintenance constraints • Prepare /Review the QAP and FQAP for civil foundation and civil structure.
Coordination and Collaboration	<ul style="list-style-type: none"> • Support for site survey, Geotechnical investigation, topography, and hydrology study. • Review, respond and comment on engineering reports and studies for civil and structural design elements on all projects • Coordinate with 3rd party engineer and project team for resolution of field issue. Non-conformance arises during the execution phase of the projects,

Developing self and others	<ul style="list-style-type: none"> • Continue to learn and remain updated on design guidelines, standards, systems, applicable engineering codes and Apraava Energy Ltd. policies and procedures • Engage in achieving self-reliance on civil engineering in Solar PV Systems / Wind Power / Substation / Transmission line foundation and structure • Facilitate sharing of new developments in Technology in the area of civil engineering with the wider audience • Build a network of expertise to support the Apraava Energy business needs (e.g., Consultants & Specialists for Expert Services)
Business Planning & Budget Forecasting	<ul style="list-style-type: none"> • Budgeting for Technical Services in accordance with Business Strategy on need basis
Interface with Hong Kong	<ul style="list-style-type: none"> • Engage with Stakeholders related Technical Engagements (e.g., OTRs, Standards & Guidelines formation) • Network with Subject Matter Experts in Hong Kong for experience sharing

4. INTERACTIONS

Internal Clients:

<p>Roles you need to interact with inside the organization to enable success in your day-to-day work</p>
<ul style="list-style-type: none"> • All roles in Technical Support • Operating Business Units within Apraava Energy • Business Development teams (Renewable, Conventional and M&A) • Apraava Energy India Management team • Technical teams at CLP Hong Kong

External Clients:

<p>Roles you need to interact with outside the organization to enable success in your day-to-day work</p>
<p>Vendors / EPC partners / Consultants / Contract partners</p>

5. SKILLS AND KNOWLEDGE

Educational Qualifications:

<ul style="list-style-type: none"> ▪ Bachelor of Engineering in Civil or Structural Engineering
--

Functional Skills:

<ul style="list-style-type: none"> • Good hands-on experience using different mapping tools/systems - Google earth, GPS Survey, Total Station, DGPS and Drone survey • Good experience of using AutoCAD and Civil engineering software such as STAAD-Pro and Civil 3D, ArcGIS software • Functional knowledge, Soil investigation and topographic survey, trial and design mix, pile load testing, shallow and deep foundations, concrete and structural steel design, corrosion of steel and concrete, and suitable types of foundation design for wind turbine generator (WTG) and other structures • Understanding of application of various standards and regulations for Civil Design & Engineering perspective including but not limited to IS 456, IS 2250, IS 875, IS 2911 • Ability to review and optimize design • Root cause analysis
--

Relevant and total years of Experience:

Overall experience: 10 + years

Specific experience in:

- Renewables and Transmission (Substation & Transmission Line) Business
 - Site survey and Geotechnical investigation
 - Exposure in Technical Due Diligence / Engineering review / execution of substation / Solar & other Renewables would be preferred.
 - Consultancy in Engineering background in a similar field can also be considered
-