

Senior Engineer

Full-time, starting December 2018

New Delhi, India

Reporting Line: CTO



About Oorja

Oorja is a young and growing company based in New Delhi, tackling some of the most pressing challenges in the energy sector today – renewable energy expansion and rural electrification.

We install smart solar mini-grids and community solar productive-use systems, through which we aim to improve quality of life by providing clean, reliable and affordable energy to low-income households, small businesses and marginal farmers. We currently operate in Uttar Pradesh, with plans for expansion to other relevant markets. We are a dynamic, driven and international team and are motivated by a desire to address energy poverty, bring about local economic development and combat climate change.

Role Background

Oorja is seeking an electrical engineer with 8-10 years' experience in the renewable energy sector in India. The Senior Engineer reports to the CTO and oversees the practical implementation of new solar AC mini-grids and solar appliances for productive use (such as community solar irrigation pumps). The role focuses on design for safe, efficient installation and operation of solar electrical energy systems. The Senior Engineer will also be responsible for building capacity in the Engineering team and line management of junior technicians for operations and maintenance of installed systems. The role involves frequent travel (up to 75%) to rural project sites to oversee implementation and manage contractors.

The Engineering team works to design, install and maintain off-grid and on-grid solar AC mini-grids for small businesses and households, and off-grid solar energy systems for marginal farmers. It works in partnership with reputed suppliers, contractors, training institutes, local organisations and stakeholders to deliver maximum benefit to the end-user.

Job Description

The Project Analyst performs a wide range of duties including, but not limited to, the following:

- Oversee energy audits and techno-economic analyses to assess technical feasibility of projects, conduct load planning and devise demand-side management strategies
- Assess technical feasibility of solarising productive-use appliances (refrigerators, motors, etc.) and develop functional specifications for components required
- Perform computer simulations for solar PV generation system performance or energy production using CAD software
- Prepare generalised functional design of cost-effective power generation and distribution systems (10-50 kW_p), building on the sizing and configuration submitted by the Project Analyst, with a focus on safe and efficient installation and operation
- Develop standardised and customised modular designs for off-grid and on-grid electricity systems (PV-battery, PV-battery-diesel, and PV-only) and PV productive-use appliances
- Prepare GFC drawings of the system design: create electrical single-line diagrams, panel schedules, wiring schedules and connection diagrams for solar electric systems, using CAD software; prepare the bill of materials and component specifications
- Raise RFIs, datasheet review, quote evaluation, management and negotiation with contractors and suppliers through to installation and commissioning
- Lead technical assessment and design of utility-in-a-box, including all equipment for power generation, storage and distribution, energy management packaged within a shipping container

- Oversee and manage in-house and/or subcontracted technicians for installation, commissioning and testing, including electrical, mechanical, civil and/or structural aspects
- Provide Engineering support to local operations teams, in particular for O&M of installed systems
- Build capacity in the Engineering team; hiring, training and line management of field technicians
- Undertake detailed testing and analysis of new engineering solutions (mechanical, electrical and electronic) to test for robustness and applicability to the local environment

Qualifications

- *University degree in Electrical Engineering required
- *Minimum 8 years of relevant professional experience in the renewable energy sector in India
- *Technical knowledge of designing and engineering electrical systems including generation (solar PV, diesel), storage (lead acid batteries), conversion and control (MPPTs, rectifiers, inverters), power distribution, power monitoring (analogue meters, digital meters, smart/PAYG meters), and appliances (pumping systems, motors, refrigeration systems, etc.)
- *Technical knowledge and experience in design and implementation of grid-connected systems
- *Intimate knowledge of occupational health and safety protocols for electrical installations
- *Experience in project management, hiring and managing junior staff and negotiating with contractors

Competencies and Abilities

- *Hands-on mechanical aptitude for practical implementation and troubleshooting of solar mini-grids and solar powered appliances, including solar pumping systems
- *Relevant CAD software such as PV*SOL and PVsyst
- *Fluent in both English and Hindi, spoken and written
- *Strong analytical and communication skills to drive system performance and profitability
- *Frequent travel (up 75%) to rural project sites to oversee project implementation and manage contractors
- *Familiarity with energy access challenges in rural areas of India
- *Able to work within a multidisciplinary, international team across different locations
- *Enterprising – creative problem solver with a technical mindset
- *Structured and methodological thinker
- *Self-confident, autonomous and reliable; integrity is of utmost importance

Benefits

- Ownership over diverse set of tasks with strong end-user focus
- Salary competitive and commensurate with experience
- Strong social and environmental impact of your work

Contact

Dr. Clementine Chambon

CTO, Oorja Development Solutions India Private Limited

How to apply

Please send your CV and cover letter to careers@oorjasolutions.org with the subject line “Senior Engineer – *Your Name*”.

More information about Oorja can be found at www.oorjasolutions.org.

Apply by

As soon as possible.