

SOLAR ENGINEERING CONSULTANTS



Company Overview

SgurrEnergy is a globally reputed solar engineering consultancy operating in India, since 2007. And since inception, SgurrEnergy India, has become the leading reputed solar engineering consultancy offering 360° services for the complete project lifecycle. Our services are tailor-made to meet the requirements at any stage of the solar project. With a team of more than 70 highly-qualified engineering and solar experts, we bring a combined 350 man-years of experience, making SgurrEnergy the largest and only purely solar-focused consulting team in Asia providing feasibility studies, designs, detailed engineering, construction management, O&M consulting, performance assessment and technical due diligence services for IPPs, developers, investors & lenders and EPCs.

**With 33GW of Solar Consultancy experience,
our work is recognized for...**



In-house
multi-disciplinary
teams



On-time
project delivery



High retention
rate and loyal
customer base



Complete
accountability
and accessibility



Impartial independent
advice across the
project lifecycle

- 350 man-years of cumulative solar experience with direct involvement in over 6GW Owner's engineering experience across the globe.
- Over 7GW of experience in Detailed engineering projects in various countries like, India, Bangladesh, Sri Lanka, Jordan, Vietnam, USA, Egypt and other African countries.
- Strong international track record in providing impartial, reliable and confidential lender's engineering services for on behalf of banks, private equity institutions and developers across the globe.
- Extensive experience in conducting construction monitoring for multi-GW of solar energy projects at diverse geographical locations such as desert, agriculture, backwater/delta, hills, valleys, mine-backfills etc.

Our Expertise



We provide solar PV engineering consultancy that optimize your solar projects for cost, quality and durability. We extend standalone service or offer suite of services for supporting project design, execution and implementation.

Advisory	Design & Engineering	Construction Monitoring	Quality Assurance
<ul style="list-style-type: none">- Feasibility Studies- EPC Bid Management- Technical Due Diligence- Lender’s Engineering- Plant Performance- Assessment Operation & Maintenance Consulting- Asset Management	<ul style="list-style-type: none">- Infrastructure Planning- Electrical Engineering- Civil & Structural Engineering- Hydrology Studies- Power Evacuation Studies	<ul style="list-style-type: none">- Engineering Coordination- Execution Quality Management- HSE Management- Plant Testing And Commissioning Support- Plant Acceptance	<ul style="list-style-type: none">- Component Level Bankability Studies- Factory Audit & Inspections- PV Module Inspection- Balance of systems (BOS) Components- Component Level Bankability Studies



Owner’s engineering
We assist project developers to ensure a smooth project



Detailed engineering
We ensure optimized design and engineering under one roof



Lender’s engineering
We deliver rigorous due diligence for lenders and investors

Detailed engineering services for a total of 648MW Solar PV plant in Tamilnadu

Location: Kamuthi, Tamil Nadu, India

Capacity: 648MW



Project Overview: One of the largest single location solar project in the world developed by Adani power. The project was developed using commercially established as well as new technologies and various mounting structure types. The project, which had a one year concept-to-commissioning timeframe, required engineering services within three months.

Scope of Work: SgurrEnergy delivered all services on time and on budget, including the project concept, technology evaluation, energy yield estimation, quality assurance plan, detailed engineering, and other associated design services, to support the 648MW solar project. Multiple technologies and vendors were deployed to supply modules, inverters, and mounting structures to meet the large project's strict timeline. EPC contracting was done in-house by Adani power's team with all engineering support from SgurrEnergy.

Outcome: The 648MW solar project was pre-conceptualized by our engineers with effective cost-to-benefit analyses for all the commercially proven technologies even before the project was given to SgurrEnergy India. SgurrEnergy assembled its diverse, integrated team of experts to ensure an on time and on budget delivery, including solar advisors, electrical, civil, structural, and infrastructure engineers, plus project managers with a history of designing projects that maximize the value of the solar asset. Design innovation was implemented throughout the project, including a modular design to reduce execution time, and an eight row module table was utilized for the first the time in India, reducing the project costs and construction timeline. Because land for the project was not all available at the onset, SgurrEnergy was very flexible in its design process in order to minimize and requirements.



Owner's engineering for 50MW Solar PV project in Egypt Shapoorji Pallonji

Location: Ben Ban Solar Park, Aswan, Egypt

Client: Shapoorji Pallonji **Capacity:** 50MW

Project Overview: The 50MW project is developed by Shapoorji Pallonji and is currently under construction. The project consist of JA solar make polycrystalline PV modules and ABB make central inverters. Th project also consist of a single axis tracker (SAT) supplied by NEXTracker.

Scope of Work: We have been appointed as Owner's Engineers for this project and our scope includes the following:

- Basic engineering
- Energy yields
- Technical advice for selection of EPC contractor
- Review of all engineering design works prepared for the project
- Review of quality assurance program prepared for the project
- Periodic site visits during construction
- Project acceptance

Project Status: Under-construction

Technical advisory services for a 750MW solar PV park

Location: Rewa, Madhya Pradesh

Capacity: 750MW



Project Overview: One of the largest solar park in India. This contains 3x250MW solar plants which are currently under construction. This park is one the first one to be connected to CTO and power to be evacuated to Delhi Metro Rail Corporation (DMRC) and MP Urja.

Scope of Work: Providing advisory assistance to IFC (Lead Transaction Adviser) on technical due diligence and inputs for IFC's client, Rewa Ultra Mega Solar Limited and New & Renewable Energy Department of Government of Madhya Pradesh. Preparation of technical due diligence report to support IFC and its client and other key public agencies in choices related to design, contracting and project management related to the setting up of the solar PV park - covering all technical aspects of the project including prediction of energy yields, assessment of costs and other technical aspects impacting the project design and viability.

Supporting IFC in organizing stakeholder consultation workshops. Preparation of technical schedules on international and Indian standards, including safety standards of the legal documents (RFQ, RFP, PPA, etc.). Supported IFC in managing the bidding process by providing technical clarifications to bidders, attending pre-bid meetings, site visits and assisting with responses to bidders' queries.

Outcome: The first solar park with individual plant capacity of 250MW each which was conceptualized by SgurrEnergy team. This conceptualization helped to lower down the project cost with reaping benefits like low tariffs and economies of scale.



Owner's engineering for a 200MW solar PV project in Bangladesh

Location: Bangladesh

Capacity: 200MW

Project Overview: The 200MW solar PV project is one of the largest under construction solar PV project in Bangladesh. The project is conceptualized to be one of the largest agriculture- solar based project in the region.

Scope of Work:

- Feasibility studies
- ESIA review
- RFP documentation and bid process management for selection of EPC contractor
- Inputs for finalization of EPC contract
- Review engineering of all documents/ drawings submitted by the EPC contractor
- In-process inspections of all critical components such as PV modules, inverters, MMS, transformers, etc.
- Project construction monitoring
- Site HSE management
- System integration and commissioning support
- Project acceptance

Project Status: Under construction

Our Projects



Detailed Engineering and PMC for **20MW solar project** for Joules Power

Location: Teknaf, Bangladesh

Capacity: 20MW

Project Overview: This is Bangladesh's largest solar project, a 20MW solar project installed in the Teknaf region in Bangladesh. It encompasses 97 acres of land and was commissioned in September, 2018. This project is the first and only project in Bangladesh with multiple split contract structure.

Scope of Work: SgurrEnergy delivered all services on time and on budget, including the project concept, technology evaluation, energy yield estimation, quality assurance plan, site HSE plan and procedure detailed engineering, and other associated design services, to support the portfolio. Additionally, SgurrEnergy deputed a team of site engineers and managers for construction monitoring, design coordination, site HSE Management, commissioning testing and system integration support services.

Outcome: We leveraged our Detailed Engineering expertise and helped Joules Power to promote split contract while working with local contractors and this development has truly led to cost savings and faster deployment of the project.

Solar Energy Development, IFC (World Bank)

Location: India



Project Overview: The International Finance Corporation (IFC), part of the World Bank Group, has commissioned SgurrEnergy's solar technical experts for an eighteen-month assignment to carry out knowledge management activities for multi-megawatt scale.

Scope of Work: The project includes the development of a comprehensive guidebook for developers and investors of photovoltaic and concentrating solar power plants, construction monitoring of multi-megawatt scale solar projects, market analysis, and training and dissemination activities. Drawing on extensive experience in the more developed European solar market, SgurrEnergy's engineering consultants will also carry out technical due diligence of multi-megawatt scale PV power plants and develop best practice and lessons learned material for IFC staff and stakeholders within the fast-growing Indian solar industry.

Outcome: SgurrEnergy with its deep engineering expertise successfully created the technical sections of the guidebook, and the guidebook can be accessed using the link below: [Utility-Scale Solar Photovoltaic Power Plants - IFC](#)



Detailed Engineering for 12MW solar hybrid power plant

Location: Burkina Faso

Capacity: 12MW

Project Overview: This project is the world’s largest solar hybrid power plant. The new solar hybrid plant configuration maximizes the utilization of renewable energy at the Essakane mine. It is estimated that this will reduce fuel consumption by some 6 million litres per year, while reducing the plant’s annual CO2 emissions by as much as 18,500 tons. The solar project utilizes thin fil CdTe PV modules and ABB central inverters. This was the client’s first foray into solar PV industry and they approached SgurrEnergy for detailed engineering consultancy.

Scope of Work: SgurrEnergy was appointed by one of the leading EPC contracting and technology group to help them implement their first turnkey solar contracting project. We supported the client during the pre-bidding stage by preparing technical aspects of their proposal, assisting them in ascertaining optimum project guarantee and warranty, choosing the best suited technology configuration considering the project location, assistance in finalizing EPC and O&M agreement etc. Further, SgurrEnergy prepared the engineering designs, documents manufacturing quality plans, field quality plans, resource planning, pre-commissioning procedures checklist and O&M manual.

Outcome: Since it was their first project in in solar PV market, our engineering services extended great support assuring best quality and performance guarantee.

Detailed Engineering and PMC for portfolio of 180MW solar park projects

Location: Veltoor, Wanaparthy,
Achampeth, Bhaisa, Telangana

Capacity: 180MW (100MW, 50MW, 15MW, 15MW)



Project Overview: The project was commissioned at several locations. The project utilizes single axis trackers to maximize the generation.

Scope of Work: SgurrEnergy delivered all services on time and on budget, including the project concept, technology evaluation, energy yield estimation, quality assurance plan, site HSE plan and procedure detailed engineering, and other associated design services, to support the portfolio. Additionally SgurrEnergy deputed team of site engineers and managers for CM, designs coordination, site HSE Management, commissioning testing and system integration support services.

Outcome: Our in-depth expertise and incessant support helped in reducing construction risk and ensured smooth work and on-time project delivery.

Owner's Engineering for 240 MW Solar PV projects portfolio for First Solar



Location: The portfolio of these projects were located at the following locations Marikal, Telangana Mahbubnagar, Telangana, Polipalli,, Andhra Pradesh, Hindupur, Karnataka Punganur. Andhra Pradesh Tandur, Telangana Karoor, Karnataka Kodangal, Telangana Nargund, Karnataka Chikodi, Karnataka

Capacity: 240MW (10MW, 10MW, 25MW, 40MW, 40MW, 50MW, 15MW, 10MW, 20MW, 20MW)

Project Overview: All these projects utilizes thin film CdTe PV modules manufacture by First Solar All these projects are commissioned.

Scope of Work:

- Feasibility studies, solar resources assessment and Energy yield prediction
- Design & specifications for inverter configurations, mounting systems, cabling etc.
- Technical specifications of major equipment including modules, inverters and tracking systems
- Power plant layout
- Assistance in evaluation of bids
- Assistance in the technical aspects of the contracts
- Infrastructural planning
- Construction drawings
- Project scheduling and construction monitoring
- Quality assurance program
- O&M advice

Outcome: The principle designs were prepared by our experts and Detailed Engineering prepared by various contractors were diligently reviewed by our in-house teams.



Owner's engineering for 2x10MW Solar PV projects in Sri Lanka

Location: Sri Lanka

Capacity: 2x10MW

Project overview:

One of the largest completed solar PV project in Sri Lanka. The project utilizes polycrystalline PV modules and central inverters.

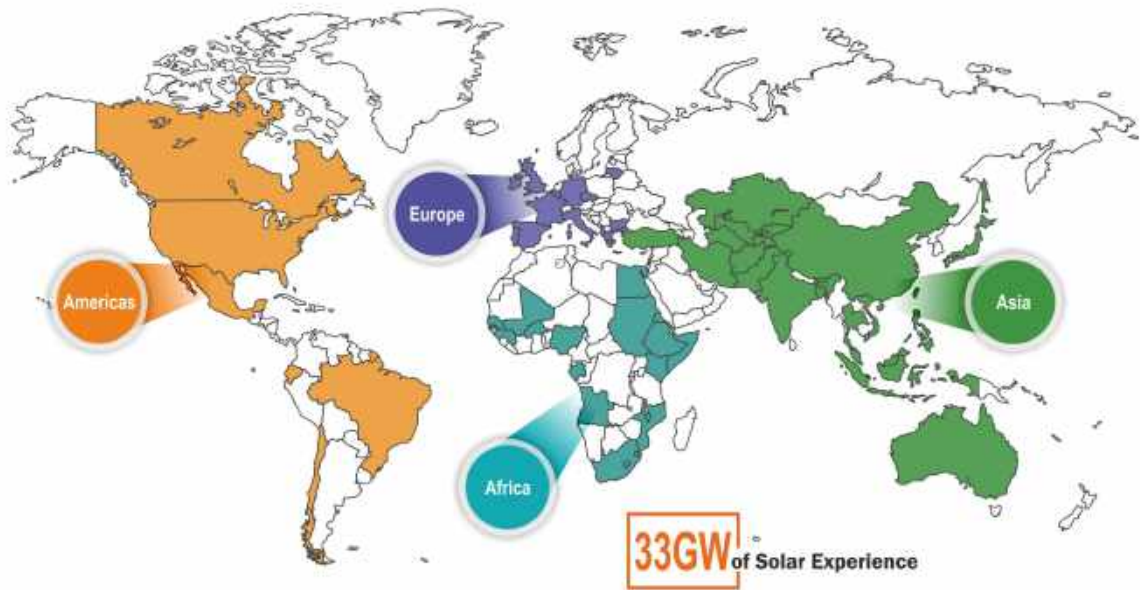
Scope of work:

We were appointed as Owner's Engineer throughout the lifecycle of the project i.e. from concept to commissioning. SgurrEnergy carried out various simulations and assessed design configurations to arrive the most well-suited technology combination keeping in mind the project's proximity to the sea and international bidding process including preparation of RFP, negotiations and selection of EPC contractor was managed by SgurrEnergy. We reviewed all the designs documents prepared by the EPC Company and carried out full time construction monitoring and commissioning support.

Outcome:

SgurrEnergy team extended full support to resolve challenges the client was facing in regards to EPC contractors selection. And also our engineers ensures complete quality at every stage of the project.

Our Global Experience



Contact Us

SgurrEnergy India Private Limited

5&6, Clover Metropole, Level - 4, Next to Clover Highlands, NIBM Rd, Kondhwa,

Pune-411048, Maharashtra, INDIA

Phone: +91 6262555111 / +91 6262555222

Website: www.sgurrenergy.in

Email:

india.info@sgurrenergy.com