

Performance Engineer – Solar CSP (based at Kathu CSP Plant, Northern Cape)

Sector: All

Location: South Africa

Posted: 31/08/2021

Reference: MJ1718

Description

We are hiring a number of staff on behalf of the Kathu Solar Park Project company and currently seek a Performance Engineer for the Kathu CSP plant.

Employee Status:
Full-time Permanent Staff position
Benefits to include the usual site specific benefits including rotational long weekend, site vehicle, accommodation allowance & travel.

Required Experience:
Minimum 3-5 years experience, preferably in REIPP projects - Solar CSP/PV, Biomass, Wind. Other energy sectors considered including -OCGT, CCGT, Coal.

Qualifications:
Degree Mechanical/Electrical Engineering or university degree.

Specific Knowledge / Skills:
Working in a performance or process engineering department.
High level of technical ability.
Proficient in the use of Performance Monitoring Software (EtaPRO, Plant site, VA Viewer or similar).
Proficient in database management systems (SQL, Access or similar).
High level of Excel knowledge.
Basic Statistical knowledge.
Strong interpersonal skills, excellent communication, negotiation, coordination skills.
Work in a multicultural environment and multidisciplinary teams.
Resolve complex technical/commercial issues.
Work with IT systems like MS office, Document management software, etc.
English language. Afrikaans would be advantageous.

Purpose of the Job:
The main goal of the Performance Engineer will be to -
Calculate, model, analyse, monitor and report on the performance and production of the facility against the performance model and the business case.

In conjunction with the EPC and O&M, review the daily actions and reports

pertaining to the operation of the facility. Analyse daily performance and production of the plant and discuss and report findings with the relevant project stakeholders. Follow the status of the plant and any risks including equipment unavailable or at risk that may impact performance and production e.g. solar field status, main equipment status, critical auxiliary equipment etc. Follow up of the EPC obligations and Owner commitments during the final acceptance testing period. Follow up of the O&M Obligations during the final acceptance testing period. Conduct tests and inspections to determine the efficiency of power plant/substation equipment and transmission/distribution power lines. Provide guidance and input and as required take the lead to resolve complicated and critical performance and engineering related issues. Periodic performance reporting of critical plant assets. Data management of key plant indicators and operational parameters. Custodian of Data Quality and reliability. Ensure that efficiency and availability targets are effectively communicated and achieved. Proactively identify improvement projects to increase plant efficiency, availability, reliability and safety. Conduct feasibility studies, conceptual designs, detailed designs for any projects identified or assigned. Conduct design reviews as and when necessary. Follow up and reconcile EPC and O&M performance mismatch. Support with liaising with and reporting to the Owners Engineer (OE), Lenders Technical Advisor (LTA) and other stakeholders on performance related matters. Provide information and support to the Contracts Manager in correspondence with the EPC and O&M. Provide technical support internally with respect to warranty, technical queries performance/production impacts etc. Contribute to the risks and opportunities identification and mitigation.

Reporting:

The PE will report to the CEO of the Project Company and will also closely interact with the Project Company's OE, the O&M Company and the EPC Contractor.

Health, Safety and Environment (HSE):
The PE will act and promote the Health and Safety culture at the site.

About the project and company:
Kathu is the first CSP project within ENGIE and as such is a high profile project for BU Africa and ENGIE. The plant uses parabolic trough mirrors, providing energy to the heat transfer fluid that is used to raise steam for use in a conventional steam turbine and also provides energy to the molten salt thermal storage system. The electricity generated is sold to Eskom SOC Limited under a 20 year PPA.

Kathu is in the Northern Cape of South Africa and the CSP site is approximately 10km from the pleasant town. Kathu is 600km for Johannesburg and there are daily flights to the town. Historically Kathu has been a centre of iron ore mining, though the solar radiation, makes this location a world class site for CSP.

ENGIE BU Africa is present in Abidjan (Ivory Coast), Nairobi (Kenya), Rabat (Morocco) and Johannesburg (South Africa). The South African assets in operation are Avon and Dedisa (two thermal peaking power plants operated with a total capacity of 1005MW), Aurora Wind farm (94 MW) and Aurora & Vredendal PV plants (combined capacity of 21MW). ENGIE has a presence in South Africa since 1994, specifically in energy efficiency services, and is the Country's number 1 independent power producer. ENGIE aims to support the government in defining a balanced energy mix based on renewable energies (solar energy, wind power) and natural gas.

Please send your Resume & Dedicated Motivational letter QUOTING THE REFERENCE NUMBER: MJ1718 to: Macey.Johnson@shawenergyltd.com