



Study Engineer - Solar & Storage - H/F

Référence : EN-26-4222

CDI

Emirats Arabes Unis

✓ Type d'offre : Offre d'emploi

✓ Localisation : Emirats Arabes Unis

✓ Expérience : 5 à 10 ans

✓ Type de contrat : CDI

✓ Domaine d'expertise : Ingénierie

Company presentation

EDF power solutions is an international energy company which develops, builds and operates renewable power generation plants.

As a major player in the energy transition worldwide, EDF power solutions implements competitive, responsible, value-creating projects for low-carbon power production.

In every country, our teams show their commitment every day, adding their expertise and capacity for innovation to the fight against climate change.

Vacancy description

The Study Engineer - Solar and Storage is responsible for solar resource assessment and energy yield / performance modelling for PV and PV + BESS power plants, covering both projects under development and assets in operation. Depending on the candidate's profile, the scope may be extended to battery performance modelling.

The scope of work will cover the following tasks:

1. Solar resource assessment

- Analyze publicly available, paid subscription and on-site meteorological data to identify, evaluate and define the solar resource for the PV projects in the region, including data collection, cleaning, analysis and reporting on solar meteorological stations.
- Perform correlation of solar satellite data to long term solar reference sites and derive long-term TMY datasets used as the basis for energy yield studies.
- Analyze the impact of climate change on solar resource for the middle east region together with EDF ps France and EDF R&D.
- Supervise the specification and operation of solar meteorological stations and equipment deployed during development.

2. Performance modelling, design optimisation EYA assesment

- Use internal and industry software to perform energy yield estimates for PV and PV + BESS projects, taking into account module/battery technologies, business strategy, site conditions, engineering principles and project design.
- Design, prepare and modify project site engineering designs and layouts using industry standard software, while applying engineering principles, design guidelines and assessment methodologies.
- Review and challenge the EPC contractor's design, yield assumptions and performance guarantees, and drive design optimisation towards the lowest levelized cost of energy (LCOE).
- Obtain and analyze plant performance data of operational assets and of the solar test facilities in the Middle East; report the results and feed the lessons learnt back into simulation methods, design guidelines and modelling inputs.

3. Optional scope depending on profile: performance modelling of BESS systems

- Develop a methodology and process for modelling energy storage and energy storage plus solar solutions, considering storage technologies, business strategy, site conditions, engineering principles and project design.
- Perform energy yield and performance modelling of standalone BESS and hybrid PV + BESS plants.
- Foster growth of energy storage technical expertise and knowledge within the team.

4. Miscellaneous and corporate support

- Perform data, statistical and engineering analysis and detailed studies.
- Create and update tools, software applications and databases to make day-to-day job functions more streamlined and efficient, and derive new methodologies, processes and procedures to improve work practices, data analysis and reporting reliability and accuracy.
- Support project managers, engineering managers, developers and other stakeholders with bid activities, dossiers, project technical requirements and requests for proposals (RFPs).
- Support key project development functions, including financial feasibility analysis, engineering/design and project legal review.
- Support the due diligence process and provide technical expertise.
- Attend industry trade shows, seminars and conferences.
- Other duties as assigned by the Engineering Manager or his/her designee.

Skills and qualities

- Bachelor of Science degree in Electrical Engineering or equivalent engineering discipline.
- Minimum of 5 years of experience working with photovoltaics and/or battery storage applications.
- Highly motivated, creative, self-starter, and good team player.
- Must have a strong desire for problem solving.
- Must be able to analyze problems and derive solutions independently.
- Experience with various Microsoft software programs including but not limited to Word, Excel, Visio, Project, Outlook, and PowerPoint.
- Experience with solar PV modules, including silicon and CdTe, and Lithium Ion battery technologies.
- Experience with solar energy modeling programs such as PVSyst, SAM, One Diode model, Two Diode model, etc.
- Experience with AutoCAD.
- Programming experience including VBA and/or Python.
- Excellent organizational and communication skills.