

Job Vacancy Description:
LV/MV Distribution Line Design Engineer for PV-Minigrids
Reference: 23.12

1. The company

Trama TecnoAmbiental (TTA), with headquarters in Barcelona (Spain), is an international engineering and consulting firm in business since 1986 in the field of renewable energies and specialized in distributed generation and energy access for development. TTA's multidisciplinary team has comprehensive experience at both technical and management levels and has been exposed to many international projects all over the world.

With its more than 30 years of experience, **TTA offers a full range of cross-cutting engineering & consulting services** for all kinds of renewable energy and energy access projects, such as:

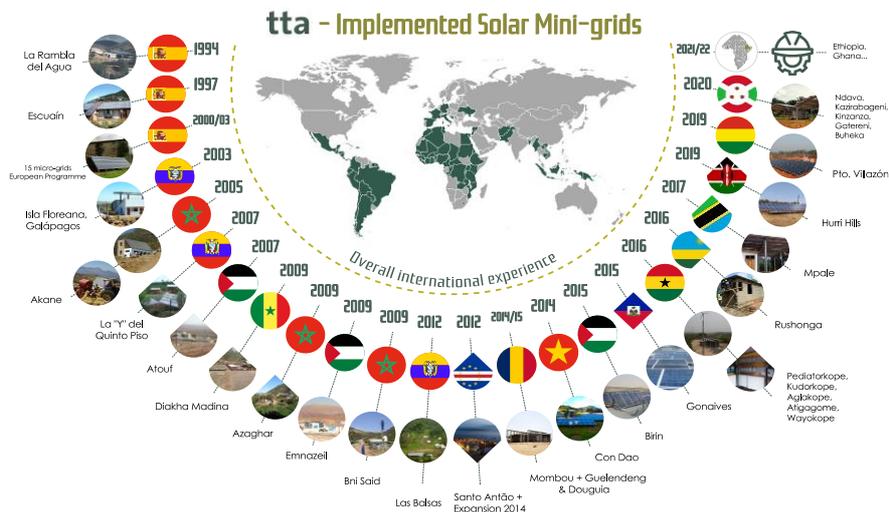
- *Consultancy in energy access and renewable energy projects (off-grid and on-grid).* Project identification and evaluation; Technical and Economic feasibility studies; Assessment of renewable energy sources, Engineering studies; Social and environmental impact assessments; Owners Engineering services; Preparation of technical specifications and bidding documents; Support during procurement; Construction supervision; Monitoring services; Operation and Management services; Project promotion and dissemination.
- *Engineering Procurement & Construction (EPC) of micro-grids.* Design, supply, installation, and commissioning of micro-grid projects.
- *Energy efficiency and green buildings.* Evaluation, design and monitoring of energy efficiency projects; Energy auditing; Integration of renewable energies into buildings and green building practices.
- *Institutional, Policy and Regulatory Support.* Design of rural electrification policies, programmes, strategies and action plans; Policy development and planning; Development of business models and tariff schemes; Market potential assessments.
- *Capacity Building.* Capacity building and specialized trainings.
- *R&D.* Publication of articles, documents, guidelines, case studies, and presentations at international conferences.

TTA is a **pioneer firm in renewable energy-based generation and solar PV Hybrid mini-grids**. At the forefront, TTA was the driving force for the implementation of the first micro-grid projects in Spain in the early 1990s, and later on applied its expertise in Latin America, Africa and the Mediterranean. TTA has implemented mini-grids as EPC contractor in Ghana, Chad, Cape Verde, Ecuador, Palestine, Morocco, etc. some of which have been operated and maintained by TTA. Having collaborated in various tasks of the International Energy Agency (IEA), TTA was awarded with the EUREC Technology Prize 2001 “for developing excellent system technology for rural electrification based on renewable energy sources, combined with an innovative, user-oriented approach for its implementation”. Furthermore, in September 2015, TTA was awarded with the Prize “Off-Grid Experts Awards” by the company Phaesun together with ARE (Alliance of Rural Electrification), for excellence in the performance in the field of Off-Grid power supply, in the Category A “product” for TTA’s “Electricity Dispenser”, an advanced meter for mini-grids.

In terms of **publications**, TTA has been the main contributor of the IRENA’s Innovation Outlook: Renewable Mini-grids (2016) and is the author of the World Bank’s ESMAP Benchmarking study of Solar PV mini-grids investment costs (2017 & 2018). TTA’s first-hand field experience in the Operations and Maintenance of Mini-grids has been used by IRENA’s Policy Toolkit. These are just some of the latest references in which TTA has participated.

Another significant milestone in the sector is TTA’s lead organization of the **International Conference on Solar Technologies & Hybrid Mini Grids to improve energy access**, a relevant sector event conducted on October 2018 in Mallorca (Spain) and which was supported by renowned organizations such as the ESMAP, World Bank, EnDev, the GIZ or SNV.

TTA’s track record in the field of Renewable Energy and Rural Electrification is demonstrated by the extensive list of projects carried out around the globe for project developers, contractors, power utilities, governments as well as all major International Organizations such as the World Bank, IFC, UNDP, UNOPS, UNIDO, UNICEF, GEF, UNESCO, IDB, OAS, European Commission, AECID, GIZ, KfW, and other cooperation and development agencies, NGOs, local communities and individuals.



TTA is also a member of and/or collaborates with the following organizations and Groups. TTA was a founding member of the **Alliance for Rural Electrification (ARE)**.



Further detailed information at: www.tta.com.es/en

Here are some videos of our mini-grid projects: <https://youtu.be/Z21tenW9YXE>, <https://youtu.be/NibFpRHk8YU>, <https://youtu.be/Pd3NCphnOs0>

2. Job description

TTA is seeking a **Design Engineer for PV-Minigrids**, with **low- and medium-voltage distribution line** experience, to join the **Technical and Construction Department of TTA**. Under the supervision of the Technical Director, the **LV/MV distribution line Design Engineer** will develop design tasks of distribution lines in mini-grids, with grid-connected and stand-alone renewable energy generation (mainly PV) layouts for electrification projects worldwide.

3. Responsibilities

The **LV/MV distribution line Design Engineer** will work in the following areas, listed according to priority:

- **Distribution network design:** Work in technical designs and simulations, particularly in low- and medium-voltage distribution grids, calculation, layout, bill of quantities, Distribution drawings, and technical specification writing, with a strong focus on mini-grids. This may include but is not limited to transformation system and distribution lines layout, connection to the MV utility network, and general protection of the installation and protection of MV/LV power transformers.
- **Owner's engineering:** Support global advisory services to institutional and private clients on project development, operation, tender preparation, installation and construction, in the scope of the specific expertise in LV/MV distribution line design and works execution. Review and evaluation of technical and financial proposals by contractors including provision of support in the negotiations with winning bidders.
- **Project proposal preparation:** Support the Business Development department in preparing proposals, in particular preparing technical methodologies, bills of materials, budgets and technical drawings for proposals in the field of the specific expertise in LV/MV distribution line design.

4. Profile

The ideal candidate for this position will have the following competencies:

1. **Educational Background.** A Master's degree in electrical engineering or similar is required. Specific education in renewable energies, sustainable energy, and/or energy access will be an advantage.
2. **Previous Work Experience.** Minimum 2 years of experience in electrical engineering, with special experience in low and medium-voltage distribution lines. Experience in Solar PV and/or other renewable energy sources is an added value. The knowledge of international normative regulations and standards is desirable, especially the US standards system in distribution line design.
3. **International Experience.** Experience in developing countries is an added value
4. **Languages.** Fluency in **English** is required. French is an added value.
5. **Computer Skills.** Excellent command of Microsoft Word, Excel, and AutoCAD. Experience with simulation software i.e. HOMER, PV SYST, or similar is an added value.
6. **Interests.** Passionate about sustainable energy; Open to travel internationally if required; Interested in development projects.
7. **Skills.**
 - Ability to work with minimum supervision.

- Ability to manage multiple project tasks simultaneously.
- Analytical skills, efficient designing and implementing of processes.
- Methodical and well-organized.
- Ability and proven experience to think creatively, learn quickly, and develop innovative solutions involving electrical and mechanical challenges.
- Cross-cultural communication and interpersonal skills.

5. Conditions

- **Salary and benefits:** TTA offers a multicultural, friendly working environment with remote work possibilities, flexible working hours, teamwork, and constant learning. Salary to be defined depending on candidate's qualifications.
- **Starting date:** Immediate.
- **Location:** Barcelona (Spain). Possibility of occasional trips to project sites in Africa, Latin America, and Pacific. Remote work can be considered for outstanding candidates.

Interested? → Please click on the following link to upload your CV and fill in the form: <https://goo.gl/forms/i05SOg847G7bsybE3>

Only shortlisted candidates will be contacted.