



Job Title: Solar Water Pump Engineer with Water Filtration Experience

Company: Power Providers Ltd

Location: Arusha, Tanzania

Job Type: Full-Time

Reports to: Managing Director

About Power Providers:

Power Providers is a leading renewable energy company committed to delivering reliable and sustainable energy solutions. Specializing in solar power systems, we cater to a diverse client base, ranging from domestic households to corporate sectors. Our mission is to address energy challenges while upholding the highest standards of service provision.

Position Overview:

We are in search of a skilled and experienced Solar Water Pumping Engineer, preferably with specialized expertise in water filtration. The chosen candidate will play a pivotal role in designing, implementing, and maintaining solar water pump systems, with a strong emphasis on integrating efficient water filtration solutions.

Responsibilities:

- **Solar water pumping system design:** use third party software to design solar water pump systems using Lorentz COMPASS, Grundfos design and alternative ways of designing pump systems. Note that understanding how to use sizing software will not be sufficient as it is important that the principles underpinning a sound design approach are well understood so that a design process can, if necessary, be completed using available data without the use of software tools. This includes the reading and understanding of datasheets for pumps and other components and designing the most techno-economic solution to meet client needs. Wire sizing and voltage drop, pipe pressure and sizing and the subsequent calculation of TDH will also be a focal requirement. Focus will also need to be applied to sourcing more cost effective pumping design solutions appropriate to smallholder irrigation requirements.
- **Solar water pumping engineering:** Independently evaluate new solar pumps (new technology) and alternative approaches to pumping water (such as solarizing AC systems with PV input using solar direct drive inverters and hybridizing existing systems using grid or generator power with solar). Work with the PP fabrication workshop to ensure that when fabrication is required then they are provided with

the correct information in a timely fashion to ensure appropriate completion. Explore the market for new quality products and suppliers in the region.

- **Solar water pumping installation:** Aim to improve on existing methodologies to establish innovative and efficient ways to keep track of pre-installation, installation, commissioning and associated costs. Evaluate reporting processes, both technical and stores based, in order to ensure smooth and timely reporting for accounting, sales and client feedback purposes.
- **Solar water pumping troubleshooting:** Be familiar with common causes of failure, troubleshooting and field based procedures in support of field based PP technicians. Have familiarity with remote monitoring system while also s utilising protocols enabling the use of remote monitoring data to keep PP updated and informed about the client system status.
- **Solar water pumping system evaluation:** engage in a procedural approach of follow up with clients over time to establish the performance of their system as installed and their satisfaction with the installation performance and PP service support.
- **Water filtration:** crafting and merging water filtration systems into solar power setups. This includes working closely with diverse teams, actively participating in research and development initiatives, and ensuring effective communication with clients. Additionally, responsibilities encompass the continuous maintenance, troubleshooting, and strict adherence to quality control measures.

Qualifications

1. Bachelor's degree in Electrical Engineering or related field.
2. Minimum 3 years of hands-on experience in designing, engineering, and maintaining solar water pumping systems
3. Proficiency in using design tools such as Lorentz COMPASS and Grundfos design.
4. Strong manual design capabilities without sole reliance on software.
5. In-depth knowledge of materials and components for solar pumping systems.
6. Familiarity with alternative technologies like solarized AC systems and hybrid systems.
7. Proven experience in innovative installation methodologies and cost management.
8. Troubleshooting expertise and ability to create procedural guides.
9. Evaluation and maintenance skills for client follow-up.
10. Excellent communication and interpersonal skills.
11. Innovative mindset for exploring new technologies and approaches.
12. Adaptability to dynamic work environments with focus on software tools..

Note: Please note the following

1. Fill all information in the provided google form
<https://docs.google.com/forms/d/1F77GEjc-KAN5V6GmMCZgPVpXwIXBCcRDeY3luBgOZa8/edit>
2. Email applications will not be accepted
3. All Applications should be submitted before the 5th of December 2023