**Term of Reference (TOR) for Electrical Engineer for the DSP Solar Initiative**

1. **Background**

The DSP Solar Initiative (DSP-SI), HMS erstwhile Bhutan Solar Initiative Project (BSIP) being undertaken under the Royal command to pave the way to tap into the larger solar energy the country has towards strengthening the energy security of the country as well as to demonstrate our continued leadership in environmental conservation. DSP-SI is expected to provide the necessary support and impetus to this objective by building capacity and catalyzing a conducive regulatory and policy regime, thereby clearing the path for large-scale uptake of solar PV by institutions and private individuals in the country.

As part of this initiative, a 750kW grid-tied solar power plant has been commissioned in Thimphu, consisting of a 250kW rooftop solar installation at CFM and a 500kW ground-mounted solar installation at Dechencholing. The solar power plant aims to contribute to the generation of clean and renewable energy in the region.

Building upon this success, DSP-SI has received Royal approval to implement Phase II, which includes building an additional 2 MW ground-mounted system at Dechencholing, Thimphu, and around 1MW rooftop solar at The Royal Academy (TRA), Pangbisa, Paro. The responsibility for implementing this project will lie with our dedicated in-house Bhutanese engineers and the capable Desuups who were actively involved in the successful execution of the first phase of the solar project.

Given the substantial scale of the second phase Solar Project and recognizing the importance of maintaining a seamless and efficient operational unit, it is imperative to establish a highly skilled workforce with a diverse range of educational backgrounds. This encompasses the candidate's mixture of Engineers with Bachelor's degrees, Diplomas, and technician certificates, ensuring a diverse and capable team that can effectively address the complexities and challenges of this endeavor. Through this approach, we aim to continue the positive trajectory of the project's success and contribute significantly to Bhutan's sustainable energy future.

2. **Objective**

The objective of this Term of Reference (TOR) is to outline the requirements for the recruitment of Electrical Engineers for DSP-SI, HMS.

3. **Scope of Work**

The selected Engineers will be responsible for the following tasks, but not limited to:

**I. Job Responsibilities for Electrical Engineer:**

The Engineer will be responsible for providing technical support and assisting in the design, implementation, and management of solar energy projects. They will work under the guidance of senior engineers and contribute to the successful delivery of solar projects.

a. Assist in conducting site assessments and feasibility studies for solar energy projects;
b. Support the design and engineering of solar energy systems, including system sizing and component selection;
c. Collaborate with the engineering team to prepare project specifications, technical drawings, and documentation;
d. Assist in the installation and commissioning of solar systems, ensuring compliance with industry standards;
e. Conduct performance evaluations and monitoring of solar systems, identifying and troubleshooting issues;
f. Assist in conducting system inspections and quality control assessments during various project stages;
g. Assist in the procurement process, including supplier evaluation, technical assessment, and documentation;
h. Conduct research on emerging solar technologies and industry best practices;
i. Support the preparation of technical reports, proposals, and project documentation;
j. Stay updated with industry advancements, regulations, and standards related to solar energy;
k. Adhere to health and safety guidelines during project execution;
l. Participate in training programs and professional development activities to enhance technical skills;
m. Contribute to the continuous improvement of processes and procedures in solar project implementation;
n. Assist in maintaining project documentation, including drawings, manuals, and technical specifications; and
o. Support the team in meeting project deliverables and deadlines.

1. **Qualifications and Experience**

The candidate for the position of Engineer should possess the following qualifications and experience:

a. Minimum educational qualification of Bachelor's Degree in Electrical Engineering. Relevant certifications in solar power plant maintenance will be an added advantage;
b. Strong knowledge of solar photovoltaic systems, including inverters, transformers, monitoring systems, and electrical components;

c. Familiarity with safety procedures and regulations related to electrical installations and renewable energy systems;
d. Ability to diagnose and troubleshoot technical issues in solar power plants, including electrical and mechanical faults;
e. Proficiency in using computer-based monitoring and diagnostic tools for solar power plant maintenance;
f. Excellent communication and interpersonal skills, with the ability to work effectively in a team and coordinate with various stakeholders;
g. Fluency in written and spoken English is required. Knowledge of the local language is desirable.

**2. Duration and Remuneration**

a. The initial contract duration will be for a period of one year, with the possibility of an extension based on performance and project requirements;

b. The remuneration package and other benefits will be as per Annex. 1

**3. Reporting and Supervision**

The Engineers will report to the Project Manager or designated supervisor. They will work closely with the Project Implementation team and collaborate with other relevant stakeholders as necessary.

**4. Selection Process**

a. Interested candidates should submit their curriculum vitae (CV), including details of relevant qualifications and experience, along with a cover letter expressing their interest in the position;

b. The application will be open to all engineers (Bachelor or B.Tech in Electrical) possessing relevant experience;

c. The application will be sought from the interested candidates for seven days (till 16th November, 2023);

d. A maximum of five candidates will be shortlisted for the Engineers ( on 20th November 2023);

e. Shortlisted candidates will be contacted for an interview and only two will be selected; and

f. The selected candidates will sign a separate contract agreement.

## 5. Annex 1:

Remuneration package

A) Engineer

| Sl. No. | Pay & Benefits | Contract Employee |
|---|---|---|
| 1 | Pay | Nu. 48,485/ month |
| 2 | Annual increment | As per pay fixation |
| 3 | Casual leave | 10 days /year |
| 4 | Bereavement leave | As per RCSC rules |
| 5 | Paternity leave | 10 days |
| 6 | Earned leave | As per RCSC rules |
| 7 | Extra Ordinary Leave | N/A |
| 8 | Maternity leave | As per RCSC rules |
| 9 | Medical leave | As per RCSC rules |
| 10 | TA & DA | Equated with grade P4 |
| 11 | Gratuity | Equated with grade P4 |
| 12 | PF | Equated with grade P4 |
| 13 | Repatriation benefit | Equated with grade P4 |

| Position Title | Position Level | Payscale | Basic pay | HRA | LE | LTC | One-off 5% Indexation | One-off Fixed Payment | Lump Sum Pay Revision | Gross | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineer | P4 | 25220-505-32795 | 25,220 | 5,045 | 2,100 | 1250 | 1,260 | 1000 | 12,610 | 48,485 | with graduity and PF |