



## Nepal Renewable Energy Program

### Terms of Reference

**Position Title:** Intern Technical - Solar

**Reports to:** Solar Specialist

#### 1. BACKGROUND

The Nepal Renewable Energy Programme (NREP) is a Government of Nepal programme funded by the British Embassy-Kathmandu (BE-K) aiming to transformational change in Sustainable Energy development in Nepal through increased private investment resulting in low-carbon economic growth and sustainable energy access for all. NREP operates in three Provinces: Madhesh, Lumbini, and Karnali. The Programme is implemented by the Alternative Energy Promotion Centre (AEPCC) with Technical Assistance from the DAI Global UK Consortium—including DAI, Winrock International, Policy Entrepreneurs Inc., and Samriddha Pahad.

Briefly, NREP has been designed to increase private sector investment to develop distributed renewable energy markets, primarily in commercial, institutional, and industrial market sectors; increase universal energy access, and a corresponding higher quality of life, to Nepali citizens living in remote regions and facilitate a policy, planning, legal construct, and regulatory environment conducive to both enabling and sustaining progress in RE market development and universal energy access.

NREP goals, categorized by functional areas shown below in the left column, include:

<b>MARKET ASSESSMENT &amp; DEVELOPMENT</b>	<ul style="list-style-type: none"> <li>• To develop 16 MW of distributed renewable energy (DRE) projects, capped at 1 MW/project, by assessing the technical and economic merits of DRE projects and by offering financial assistance to:               <ul style="list-style-type: none"> <li>○ Commercial, Institutional &amp; Industrial markets,</li> <li>○ 200 schools &amp; health centres institutions,</li> <li>○ 500 small businesses, and</li> <li>○ Electric Vehicle charging stations.</li> </ul> </li> </ul>
<b>UNIVERSAL ENERGY ACCESS</b>	<ul style="list-style-type: none"> <li>• To increase universal energy access (UEA) by the facilitation of:               <ul style="list-style-type: none"> <li>○ 95,000 households being served by DRE, e.g. with electric induction cooking,</li> <li>○ Solar microgrids, and</li> <li>○ Grid-connected micro-hydro plants</li> </ul> </li> </ul>
<b>INNOVATIVE FINANCE</b>	<ul style="list-style-type: none"> <li>• To de-risk private sector investment in DRE and UEA projects through Viability Gap Funding-based Sustainable Energy Challenge Fund (SECF) with specific Funding Windows designed to meet NREP Market Development &amp; Assessment goals.</li> </ul>

	<ul style="list-style-type: none"> <li>• To identify financing mechanisms, that may not be currently used in Nepal, that will attract private sector investment in DRE.</li> </ul>
<b>ENABLING ENVIRONMENT</b>	<ul style="list-style-type: none"> <li>• To strengthen institutions and policies, e.g.: <ul style="list-style-type: none"> <li>○ Developing the capacity of public sector entities such as AEPC, NEA, MoEWRI, and ERC,</li> <li>○ Developing the capacity of private sector entities such as the solar PV and battery energy storage industry associations, DRE project developers and investors, banks and lending institutions, and other market-driven interests, and</li> <li>○ Strengthening DRE-related policies and regulations such as the National Renewable Energy Policy, and the related Renewable Energy Act and Electricity Act; Public-Private Partnerships; net metering and PPA agreements; electricity and EV charging tariff analysis; and Long-Term Strategy of Net Zero Energy by 2050 with Cross-Border Electricity Trade.</li> </ul> </li> </ul>
<b>CLIMATE CHANGE MITIGATION</b>	<ul style="list-style-type: none"> <li>• To reduce CO2 emissions, by: <ul style="list-style-type: none"> <li>○ Reducing the emissions and human health hazards related to woody biomass and animal dung used in traditional cooking by facilitating market-driven solutions to widespread electric induction cooking and other clean cooking solutions.</li> <li>○ Displacing diesel back-up generators with solar/storage systems at end-user sites; replacing significant portions of Nepal's imported coal-generated energy with larger solar PV projects.</li> <li>○ Contributing to Net Zero Emissions by 2050 status, e.g. with hydro/solar seasonal complementarity and Cross-Border Electricity Trade with, e.g., India and Bangladesh.</li> </ul> </li> </ul>

## 2. SCOPE OF WORK

- Support SECF grantees in effectively and efficiently implementing the selected Solar PV/Thermal projects.
- Support in assessment of Net-metering Solar PV, Roof-top solar PV, Utility Scale Solar PV in commercial institutions and industries; municipalities, etc using different design software's like PV Syst, Helioscope, SAM, etc.
- Support in the preparation of BoQ, Cost estimate and Tender documents for the identified Solar PV/Thermal opportunities.
- Support NREP team members to identify potential pipelines of Solar PV/Thermal projects for SECF
- Any other duties deemed by the management.

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### **3. SCHEDULE**

The schedule of assignment will be six months.

### **4. REPORTING**

The intern shall report and submit the status of deliverables to the Solar Specialist. However, s/he will coordinate with concerned NREP teams for the completion of assigned tasks.

### **5. PAYMENT PROCEDURE**

The intern will be paid on a monthly basis as per the institutional policy.

### **6. PERSONAL QUALIFICATIONS**

- Bachelor's degree in engineering.
- Basic written and verbal communication skills in English.
- Good interpersonal skills and team spirit.
- Able to work confidently in an international environment.
- Proficient using Microsoft Office tools.