

Terms of Reference

Title:	Renewable Energy System Equipment Testing Expert
Assignment:	Design and conduct technical training on familiarization with the methodology for the testing and certification system related to quality control of the components of renewable energy technologies

Place of work: Home-based

Period: 40 working days over 4 months (July - October 2021)

Contract type: Individual Contract

Project title: #00101058 UNDP/GEF Project "Derisking Renewable Energy Investment in Kazakhstan"

Description of the project

The objective of the project is to promote private sector investment in renewable energy sources in Kazakhstan to achieve the country's 2030 and 2050 renewable energy targets. The project targets both large-scale and small-scale renewable energy sources.

The goal of this project is to achieve transformation of the energy market in Kazakhstan by significantly increasing the scale of the use of renewable energy sources in electricity production, thereby increasing the share of renewable energy in the country's power generation mix from 1.1% in 2017 to 10% by 2030.

To achieve its objective, the project includes activities to support renewable energy projects that are expected to bring about a collective GHG emission reductions of at least 460,000 tonnes of CO₂. In addition, by the end of the project, the project would have supported the commissioning of 9.5 MW of direct, small-scale renewable energy system (RES) that will produce about 500 GWh of electrical energy.

The project is comprised of three components:

- Component 1 – Large-Scale Renewable Energy: Policy and Financial Derisking Measures
- Component 2 – Renewable Energy for Life: Policy Derisking
- Component 3 – Renewable Energy for Life: Financial Derisking and Incentives

This consultancy assignment is part of Activity 2.4.5, under Component 2/Output 2.4 of the DREI Project.

Purpose:

The main purpose of this work is to develop a technical training program, as well as to conduct the developed training program for the targeted stakeholders. The training is aimed at

familiarizing with the methodology for the testing and certification system related to quality control of components of renewable energy technologies (hereinafter referred to as the Components). The Components are those for renewable energy technology applications covered in Standardization No. 117 “Renewable Energy Sources and Alternative Energy”. The training will be held with the participation of the Technical Committee for Standardization No. 117 (TCS 117).

Scope of work:

Stage 1.

Development of an Action Plan for the organization of three technical trainings in an online format [for responsible specialists of Kazakhstan, aimed at practical acquaintance with the methodology of the testing and certification system for renewable energy technologies components, based on international standards and in accordance with the requirements of the EU countries. Provide in the Action Plan for the participation of one or two experts (international and local expert - lecturers on the testing and certification system). Submit the action plan for discussions with TCS 117 and agree with the client after first seeking detailed comments and feedback.

Stage 2.

Implementation of the agreed Action Plan, which must include, among other things, the following mandatory activities:

1. Design and approval of the training curriculum considering the following:
 - analysis of the legal framework and methodology (standards, rules, regulations, and other normative documents) for testing and certification Components as specified by TCS 117;
 - practical aspects of testing and certification Components, including testing the parameters of Components based on international experience;
 - main parameters and characteristics of testing;
 - equipment and instruments for testing and certification of Components;
 - issues of interaction with national and foreign testing laboratories, as well as inter-laboratory collaboration on testing protocols and mutual recognition of test results;
 - topical directions for conducting training courses to expand the capacity of responsible employees of testing laboratories;
 - other issues related to the work of testing laboratories.
2. Design and development of an online training program based on the guidance of TCS 117, and specification of the online training room requirements including the necessary equipment for technical training;
3. Preparation of printed training materials, including handouts for training.
4. Conduct technical trainings in an online format at the TCS 117 site, the frequency of trainings should be considered in the Action Plan.
5. Preparation of the Training Report, which includes: (a) proceedings of the training courses; (b) evaluation of the training; (c) recommendations for improved training (particularly in-person training).

Expected results:

The deadlines for completing tasks and payment will be carried out according to the following table:

No.	Results	Time frame	Checked and approved
1.	Work performed in Stage 1	6 weeks from the date of commencement of the assignment	ICTA and Project Manager
2.	Work performed in Stage 2 - Tasks 1, 2 & 3	14 weeks from the date of commencement of the assignment	ICTA and Project Manager
3.	Work performed in Stage 2 – Tasks 4 & 5	16 weeks from the date of commencement of the assignment	ICTA and Project Manager

Indispensable conditions:

When carrying out all types of work that may have to be done in the performance of this consultancy assignment, the contractor must ensure the safe and legal production of the required deliverables (e.g., reports and finished products, excluding the creation of counterfeit products).

It is necessary to ensure compliance with the copyright (and related rights) laws and regulations of the Republic of Kazakhstan.

All rights to products produced, including originals of documents and their copies, can be transferred to any third person by the decision of the client (DREI Project), and such transfer can be carried out directly to the third person and immediately upon completion and acceptance of all work, in accordance with this Terms of Reference.

The UNDP project reserves the right to amend the Terms of Reference (up to a maximum of 20% of the content) but ensuring no change in the general essence of the consultancy assignment and the cost of services under the Agreement.

Responsibility and accountability:

The contractor bears full responsibility for the accuracy and legality of the information provided and for the timely provision of reports.

- Coordinates actions to be carried out with the DREI Project Manager and the international CTA (ICTA).
- Collaborates with the expert team of the DREI Project.
- Ensures unconditional fulfillment of the requirements specified in the contract and terms of reference.

Reports and materials: These should be provided in the Russian and Kazakh languages, in written and electronic versions in MS WORD (2003 and above) according to the UNDP format; Font: Times New Roman, 12 in 3 copies.

Duration of work: 40 working days over 4 months

Place of work: Kazakhstan. The travel schedule is determined by the service provider (schedule and quantity of the required trip indicate in the methodology). All travel expenses, equipment rental, communication services, and other expenses associated with this work should be included in the price offer.

Required skills, work experience of the expert:

Qualifications:

- Higher education (engineering or applied sciences);
- At least 7 years in organizing training events, seminars, conferences, and technical trainings in the field of energy-saving, renewable energy sources, energy efficiency, and testing laboratories;
- At least 5 years of experience in conducting educational seminars/trainings on technical issues, including energy-saving, energy efficiency, and renewable energy;
- Knowledge of legislative and other regulatory documents in the field of standardization and metrology;
- Availability of a certificate of professional attestation, if applicable;
- Experience in the preparation of analytical studies and methodological developments, standards, techniques, regulatory and technical documents;
- A list of similar services performed with the indication of the Customer, the name of the services/works, the year of the provision of services and the cost (if possible);
- Experience with the design or implementation of renewable energy projects;
- Good knowledge of Russian.

Quotation volume and payment schedule:

%	Stage of work
20	Result 1
50	Result 2
30	Result 3

Terms of reference approved:

Syrym Nurgaliyev
 Syrym Nurgaliyev
 Project Manager
 Date: 10-Jun-2021

Abduvakkos Abdurahmanov
 Abduvakkos Abdurahmanov
 GEF Portfolio Manager
 Date: 10-Jun-2021