

UNDP Pakistan Country Office



Section 4: Terms of Reference Charging Station – Lot 2

Enhancing power reliability while promoting green energy solutions to create smart UNDP facilities

EV Fleet



2

EV Battery Capacity (kWh)



35-42

Charger Capacity (kW)



Min. 7kW AC

CO₂ Emissions Savings (tons/year/car)



1.75-2.13

Table of Contents

Section 4: Terms of Reference Charging Station – Lot 2	1
List of Tables	3
List of Figures	3
Acronyms	3
Scope of the Document	4
1. Introduction	4
1.1 Sustainable Development Goals	4
1.2 Smart UN Facilities	5
1.3 Seven Step Green Energy Process	6
2. Project Description	8
3. Duties and responsibilities	8
4. Statement of Work	9
4.1 Vendor	9
4.2 After-sales service and response time	9
4.3 Technical Requirement	10
4.4 Smart Charging Station (Option 2)	12
4.5 Standard equipment	13
5. Tasks and Responsibilities	13
6. Documentation	15
7. Price and Delivery Schedule Forms	18
7.1 Price Schedule Option 1 – Acquisition Cost of the Regular Charging Station	18
7.2 Price Schedule Option 2 – Acquisition Cost of the Smart Charging Station	19
8. Communications Management Plan	20
8.1 Project Team Contact Details	21
8.2 Communications Conduct	21
9. Delivery Requirement	22
Annex I: Quotation Submission Form	23
Annex II: Compliance Response Form	26

List of Tables

Table 1. Technical Specifications of the Charging Station (Option 1 and 2).....	10
Table 2. Technical Specifications of the Smart Charging Station (Option 2).....	12
Table 3 – Mandatory tasks and Responsibilities	13
Table 4 – Documents after award of contract.....	15
Table 5 – Price Schedule Option 1.....	18
Table 6: Price Schedule Option 2	19

List of Figures

Figure 1 - The Global Goals for Sustainable Development.....	4
Figure 2 - Smart UN Facilities Framework	5
Figure 3 - Seven Step Green Energy Solution	6

Acronyms

AI - Artificial Intelligence
COB - Close of Business
GHG - Green House Gas
HQ - Head Quarters
ICT - Information and Communications Technology
IoT - Internet of Things
O&M - Operation and Maintenance
ITM - Information and Technology Management
SDGs - Sustainable Development Goals
TOR - Terms of Reference
UAT - User Acceptance Test
UNDG - United Nations Development Group
UNDP – United Nations Development Programme

Scope of the Document

The Terms of Reference (TOR) sets the requirements to facilitate smart and clean energy solutions to secure country office activities in **UNDP PAKISTAN** by purchasing, installing, commissioning (including complete civil works), and after-sales services for an Electric Vehicle Charging System at **UNDP PAK CO**. An overall high-quality system is expected, as the system will be a showcase for other compounds.

All the requirements included in this ToR are numbered and boxed.

1. Introduction

The **UNDP PAKISTAN**, in cooperation with the UNDP Information & Technology Management (ITM) Green Energy Team, has taken initial steps towards purchasing 2 Electric Vehicles with a Charger.

Based on the collected data, calculations have been made to determine which solution will be the most advantageous.

Switching to renewable energy implies strong environmental incentives. This will institute the United Nations Sustainable Development Goals while being an opportunity to promote green energy solutions and inspire local economies to adopt similar solutions.

1.1 Sustainable Development Goals

The Sustainable Development Goals (SDGs) are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice. The Goals interconnect and in order to leave no one behind, it is important that we achieve each Goal and target by 2030.¹

As a leading agency in the fight against climate change, UNDP is committed to “walk the talk” by demonstrating that we run our operations in a resources-efficient, sustainable, and accountable way.

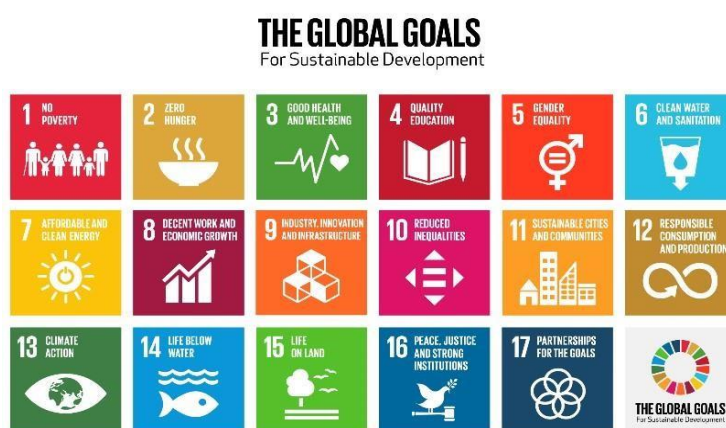


Figure 1 - The Global Goals for Sustainable Development

Substantial progress has been achieved in making UNDP “greener,” more resilient operations both at Headquarters and in many Country Offices (CO) and Regional Centers. Around the world, our offices are working to minimize the environmental impact associated with operations, from green building renovations and sustainable procurement practices to staff training and bicycling programs. By now, over 20 UNDP CO

¹ About the Sustainable Development Goals

(<https://www.un.org/sustainabledevelopment/sustainabledevelopment-goals/>)

– out of a total of 167 - have installed or are installing photovoltaic systems to reduce Green House Gas (GHG) emissions and enhance office energy security.

Recently UNDP adopted a 'Climate Neutrality and Sustainability Plan for Global UNDP Operations' committing UNDP to reduce GHG emissions by 10% over 5 years and achieving climate neutrality for global operations starting effective 2014 ².

1.2 Smart UN Facilities

The concept of Smart UN Facilities revolves around using data insights and interconnected technologies to transform UN Country Offices and related facilities into "smart" premises; in effect, local capacity to carry out the UN's goals is augmented.

This is rooted in two aspects, which are manifested in multiple technology systems provided by ITM:

1. Fourth Industrial Revolution – the advent of connected technologies including robotics, the Internet of Things (IoT), autonomous vehicles.
2. Smart cities – utilization of sensors for data collection, insights, analysis, and subsequent enhancement of services.

In view of the benefits, it leads to make the first step in transitioning into a low-carbon and digital organization through smart integration of various equipment. As it is depicted below, **Error! Reference source not found.** shows the main technologies that set and establish the Smart UN Facilities including:

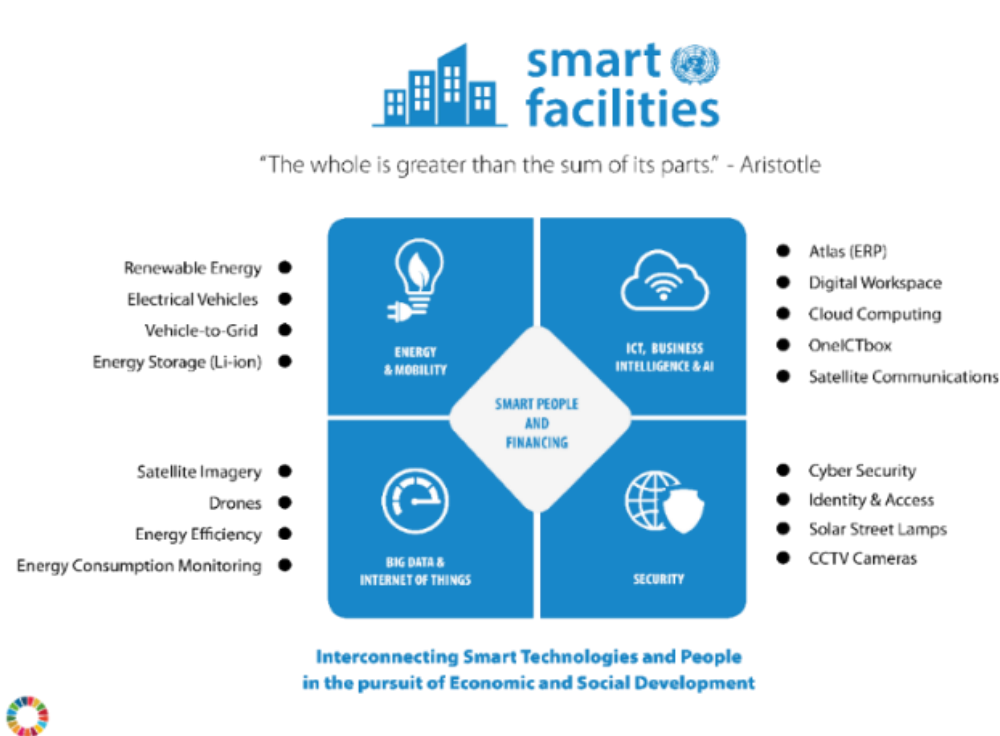


Figure 2 - Smart UN Facilities Framework

² UNDP - Greening the Blue Initiative (<http://www.greeningtheblue.org/what-the-un-is-doing/unitednationsdevelopment-programme-undp>)

Energy & Mobility

- ICT, Business Intelligence & AI
- Big Data & Internet of Things
- Security

1.3 Seven Step Green Energy Process



Figure 3 - Seven Step Green Energy Solution

Use of the United Nations Development Group (UNDG) recommended 7-Step process will be adopted for the project. The approach is a holistic end-to-end process with preliminary assessment of project practicability and the post-installation operation & maintenance.

This is depicted in [Figure 3](#) and elaborated in the subsequent text.

Step 1: Vehicle Utilization & Assessment using IoT

- a) The office is required to complete the Preliminary Site Survey form which will provide information on the current vehicle fleet and the e-Mobility solution they wish to have.

Step 2: Business Case

- b) This step serves to provide essential information and data for decision-making. With the information gathered during Step 1, ITM does an extensive research to identify the potential electric vehicle. This enables an analysis that results in a business case draft presents a potential green energy solution for the UNDP CO.

Step 3: Procurement & Site Preparation

- c) Compilation and publication of solicitation documents is carried out in accordance to UNDP rules as applied by local procurement in such projects;
- d) Evaluation of bids/proposals will be carried out jointly between ITM and the CO.

Step 4: Site-survey – vendor

- a) When implementing charging stations, the vendor carries out an on- site survey to exhaustively take into consideration all aspects that can adversely affect the implementation of the project, and information for the final costing of the project including required materials/equipment and time frames;
- b) The vendor acts as implementer, working closely with focal point at the CO, where necessary, and ITM exercising technical oversight and project management. Submission of the final Site Survey Report marks the end of this step.

Step 5: Design

- a) The selected vendor drafts the final technical design of the facility including any construction plans if applicable, taking into consideration findings from the site survey in the previous step.
- b) As part of technical oversight, ITM must endorse the final design before actual installation starts; Submission of the ***final design, with an endorsement letter from the manufacturer and implementation schedule*** marks the end of this step.

Step 6: Installation

- a) The vendor carries out all the necessary installations, in the process giving regular progress updates to all stakeholders;
- b) Critical milestones are defined, at which point ITM makes the necessary assessments as part of the technical oversight;
- c) Among other critical requirements, the step entails end-to-end testing, physical inspection of the charging station, user training, and complete documentation of the system;
- d) This step involves carrying out User Acceptance Testing (UAT) in which all parties play a role. This test is to be developed in collaboration with ITM.

Step 7: Operation & Maintenance

- a) Preventive and corrective maintenance will be provided depending on the level of charging stations (usually Level 1 and 2 require little maintenance, while Level 3 require more attention), as well as service maintenance for the Electric Vehicle and regular monitoring from UNDP.

Communication and Publicity

Parallel to the 7-step process of green energy solution, ITM Communications Team and the CO Communications Team carry out the promotions of the successful project within the country and globally through the UN network. This process involves highlighting the benefits of the installed system and spread word about the human impact. Furthermore, this aims at motivating similar installations in other parts of the country.

2. Project Description

The goal of this assignment is to select a responsible party (private sector company) based on a competitive process willing to participate in the procurement of an Electric Vehicle Charging Station. The Charging Station should be able to charge a fully electric sedan vehicle without causing an overload of the overall CO electrical system neither a voltage nor frequency disturbance to the grid. It should be reliable, secure and user friendly. ITM requires **high quality** for the system as it will also serve as a show case at a national and international scale. The following document provides requirements and guidelines for the project, but innovative solution proposal is highly encouraged to improve the system

The responsible party is requested to collaborate with UNDP Pakistan, by procuring an Electric Vehicle Charging Station that meets the requirements listed in the section 4.3.

This Request for Quotation seeks submission for:

1. Regular Charging Station (**Option 1**)
2. Smart Charging Station (**Option 2**)

In the rest of the document, we will refer to the type of charger by **Option 1** and **Option 2** as shown above, and the main difference between both is only the charging management system where the smart charger has more advanced functionalities compared to the regular charger. Therefore, unless the option is explicitly mentioned, the requirements listed apply to both chargers.

All vendors must include in their offer all optional features, and UNDP ITM Green Energy Team, together with the UNDP Pakistan CO will make the final decision on whether to include or exclude them in the final service procured.

UNDP Pakistan Premises is located at: *4th Floor, Serena Business Complex, Khayaban-e-Suharwardy, Islamabad, Pakistan*. The charger should be installed in the garage underground where the electric vehicle will be parked.

3. Duties and responsibilities

The UNDP and responsible party will collaborate in the framework of the project proposal developed by responsible party based on:

1. *Best value for money criteria*
2. *Performance-based payment agreement:* Performance-based payments are a type of agreement between UNDP and a responsible party to provide funding upon the verified achievement of an agreed measurable development result. No advances are provided, rather payments are made only upon the verified achievement of agreed results.

The responsible party under this Agreement shall self-finance all activities until the Result(s) are achieved and validated by the Project board. Early termination of the agreement can be envisaged if certain milestones/timeframes/etc are not met. Early termination may also be triggered through lack

of adherence to UNDP's Social and Environmental Standards. The responsible party will be capacity assessed (according to UNDP policies), and a due diligence exercise will be done for private sector entities. The responsible party shall get into partnership (if needed) with local public authorities and/or private sector companies for project implementation.

4. Statement of Work

4.1 Vendor

The vehicle manufacturer should satisfy the following conditions:

1. At least 5 years of experience in the e-Mobility network management, renewable energy, IT, electric equipment market, services in electric installations or providing services in this area of interest.
2. Proof of all necessary licenses and authorizations for electric works, or proof of a contract for performing electric works with a licensed company.
3. Proof of installed EV-chargers (Contract, Partnership agreement, etc.). Failure of provision of such documents will lead to applicant disqualification.

4.2 After-sales service and response time

The vendor must be able to comply with the requirements for after-sales services and maintenance processes. In case the vendor is not located in Islamabad to allow for a reasonable response time, it must show proof of a formal agreement with a local representative with relevant experience to perform such requirements. This aligns with UNDP's mission of developing local capacity. If the vendor is located in Islamabad only then a local representation is not necessary.

Please include the following in the offer document if an agreement with a local representative:

1. Letter signed by both parties, confirming relationship between vendor and local partner.
2. Profile of the local partner, including documentary evidence of relevant experience and services.
3. Official documentation stating that the Local Partner is a registered business in the country.

Both the vendor and the local partner (if applicable) need to agree on the warranty and maintenance terms discussed in **section 4.3 and must be aware of the high-quality expectations for the solution, as the system will serve as a showcase at both national and international levels.** This needs to be proved through a signed document stating the mentioned points.

Note that the vendor is responsible for the requirements mentioned in section 4.34.3 and not the local partner.

As the local partner may be required to go on-site during the O&M phase for maintenance and/or troubleshooting, it should be based in a strategic location within proximity to the Country Office. In case of a critical incident, the local partner (or the vendor itself, if no local partner is needed) shall acknowledge the issue and perform the required activities depending on the identified incident priority.

4.3 Technical Requirement

Bidder shall supply and deliver manufacturer's standard for the following specifications **Electric Vehicle Charging Station**, Suitable for use by: **UNDP Pakistan Country Office**. **All requirements in the listed table applies to both charger options unless it is clearly mentioning the relevant option.**

Table 1. Technical Specifications of the Charging Station (Option 1 and 2)

No.	Item	Description
4.3.1	Charger Type	Single phase for charging station (Level 2 charger - AC)
4.3.2	Power (kW)	Minimum charging power of 7 kW AC (peak)
4.3.3	Output Voltage (V)	220-240 VAC
4.3.4	Compatibility	Universal charger, compatible with car ports: 1. SAE J1772 (Type 1) and, 2. Mennekes (Type 2 - Single phase) based on IEC standards
4.3.5	HMI and Communications	Communication protocol: The charger must be compliant with OCPP (Open Charge Point Protocol) 1.5S or 1.6J protocol for centralized management. Later versions (OCPP 2.0) will be positively evaluated
4.3.6	Standards	The charger should be compliant with the following standards or equivalent ones (if equivalent, specify in the Annex II table. Proof of compliance should be presented along with the technical offer. i. IEC 62196-1:2015 or equivalent ii. IEC 62196-2:2018 or equivalent iii. IEC 61851-1:2020 or equivalent iv. IEC 61851-21:2010 or equivalent v. IEC 61851-22:2010 or equivalent vi. EN 50620:2018 or equivalent vii. IEC 62893-1:2017 or equivalent viii. IEC 62893-3:2017 or equivalent ix. IEC 61439-7:2018 or equivalent x. IEC 62955:2018 or equivalent
4.3.7	Safety	IP protection class 54 or better
		IK protection class 10
		Full electrical and temperature protection
		Reverse polarity protection
		Over voltage protection
		Under voltage protection
		Overload protection
		Short circuit protection
		Ac and DC Earth leakage protection
		Surge protection
		Lightning protection

		Emergency-stop button
4.3.8	Grounding	All components of the system must be properly grounded
		All work must be carried in conformance to international and local codes and electricity standards
		The devices must be installed in accordance with the grounding device manufacturer's specified instructions
4.3.9	Metering	Integration of the EV charger with the buildings' energy management system
4.3.10	Mounting	<p>The charger is to be floor mounted in the basement of the building, providing an easy access to the charger. The mounting should be ensuring the charger to be stable and secured in the mounting placement.</p> <p>In this regard, vendors are requested to provide complete appropriate solution including supply of materials; civil works etc. as part of the project.</p>
4.3.11	Features	<p>The proximities of the location of the EV charger mounting shall be equipped with these features:</p> <ul style="list-style-type: none"> i. Smoke detection and alarm ii. Fire extinguisher iii. If applicable, concrete base: provide specifications and/or requirements for the cement/concrete base for placement of the charger
4.3.12	Configurations	Editable metal case (ready for branding)
		Ergonomic design
		Visible, simple and easy to understand
4.3.13	Online Monitoring	<p>A local and remote monitoring system shall be provided to be able to track operation of the system with real-time & historical data. It must include, at least, the following parameters:</p> <ul style="list-style-type: none"> i. Charger status (on, off, sleep mode) ii. State of charge (SOC) of the EV's battery iii. Cycles of the battery (to be able to track the lifetime of the battery and its performance) iv. Alerts on errors, with notifications v. Energy flow to the vehicle (live and historical trends) vi. Data storage capacity for 3 years vii. Energy consumption i. Alarms and configuration records
4.3.14	Charging Cable	Cable length of 5-meter minimum
		Anti-vandal connector/plug for Level 2 charging AC

4.3.15	Warranty	<p>The warranty period of the EV charger must be a minimum of 1 year. This means that, for 1 year after the commissioning, the vendor is responsible for resolving any functionality issues with the complete system, without any financial liability on UNDP.</p> <p>Other warranty arrangement suggested by the bidder will be also considered</p>
4.3.16	Parts, Repairs and Training Manuals	<p>i. The successful bidder shall supply UNDP Pakistan with access to a comprehensive training manual which describes:</p> <ul style="list-style-type: none"> - Smart use of the charger to avoid misuse of the equipment - Basic troubleshooting in case of charger failure - Usage of online monitoring in the case of smart charger <p>Hard copy <u>manuals</u> meeting these requirements must be provided via printed copy, CD or DVD</p>

4.4 Smart Charging Station (Option 2)

Table 2. Technical Specifications of the Smart Charging Station (Option 2)

4.4.1	Additional Features	Intelligent power adjustment: Ability to set timers to allow charging at different times (off-peak/night), Time of use tariffs
		Opt-out possibilities
		Emergency stop
		Wifi/APP/ethernet monitoring / Bluetooth is not sufficient
		Remote control - turn the EV charger on or off via a smart device/monitoring system.
		Analyses the building energy consumption and manage the charger time and duration accordingly
		Coverage for software update – Free software update included
		Analyses the building energy consumption and manage the charger time and duration accordingly
		AICPA certification or equivalent – Ensure strict information security procedures encompassing data security, availability, and confidentiality
		Data collection functionality:
		<ul style="list-style-type: none"> i. Local energy optimization ii. Demand charge management iii. Load balancing

4.5 Standard equipment

Charging Stations must be delivered with all Manufacturers Standard Equipment regarding comfort, utility, safety, and convenience.

5. Tasks and Responsibilities

The overall tasks and responsibilities of the provider are indicated below in Table 3.

Table 3 – Mandatory tasks and Responsibilities

5.1	Risk Assessment, Avoidance and Mitigation Plan	<p>A mandatory risk assessment must be conducted and presented along with the technical offer, including as minimum features:</p> <ul style="list-style-type: none">i. All potential risks that the project might incur.ii. The probability of incurrence and severity of the identified risks (e.g.: risk matrix).iii. The risk tolerance for the identified risks.iv. Proactive and reactive responses for risks surpassing the defined threshold of severity and/or probability.v. A mitigation plan for the risks identified as most severe or likely to happen (e.g., in case the final timeline is not respected due to external factors). <p>This risk assessment must include all the major phases of the project, i.e., procurement, shipment and transportation of goods, training of the end-users.</p>
5.2	Shipment of material	<p>Shipment to be provided for the charging station and the associated components, following all procedures and documentation specified in this document.</p> <p>It is recommended to perform check and verification of the charging station functioning before shipment (ideally 2 weeks before shipment).</p> <p>A pre-shipping inspection should be planned in case UNDP chooses to inspect the charging station before shipment.</p>
5.3	Installation of the Solution	<ul style="list-style-type: none">i. Charger mounting and installation, the vendor shall provide the implementation of Civil Works and Site Preparation if applicableii. Earth and lightning protectioniii. All necessary components of the charger must be properly grounded

		<ul style="list-style-type: none"> iv. Anti-theft protection of the charger v. In case of international vendor, the engagement and involvement of local or regional partner in order to enhance the charger deployment and after-sales services vi. Fire protection.
5.4	Commissioning, UAT and Training	<p>Training</p> <ul style="list-style-type: none"> i. Charging Station utilization training must be provided to UNDP PAK user(s). ii. The content of the training must also include topics such as: <ul style="list-style-type: none"> a. Smart use of the charger to avoid misuse of the equipment b. Basic troubleshooting in case of charger failure c. Usage of online monitoring in the case of smart charger iii. Charger Essentials (Basics) Maintenance and Troubleshooting Guide must be provided to Country Office in English to ensure level 1 troubleshooting can be carried on by the focal point on-site <p>User Acceptance Testing</p> <ul style="list-style-type: none"> i. The UAT shall be developed in collaboration with ITM UNDP ii. User Inspection will be performed during commissioning by ITM and the CO Focal point. <p>Commissioning</p> <ul style="list-style-type: none"> iv. Complete the UNDP Commissioning check list v. Manuals of the Charging Station must be provided vi. If there have been any changes to the technical documentation/configuration, the updated documents should also be provided vii. A representative from the supplier's own staff/ team during commissioning of the system must be present
5.5	Stabilization of the System	<ul style="list-style-type: none"> i. The awarded vendor must remain at the disposal of the beneficiary for at least six months (stabilization period) after handover/commissioning to assist in answering any technical or other related questions. ii. The maintenance agreement starts after stabilization period of 6 months
5.6	Maintenance of the system	<ul style="list-style-type: none"> i. Mandatory maintenance and after-sales services for 3 years including:

		<ul style="list-style-type: none"> a. Periodic maintenance (preventive and corrective) b. Technical support (onsite and/or remote) c. Continuous availability of the online monitoring system <ul style="list-style-type: none"> ii. Vendor technical support and/or helpdesk contact information and procedures including escalation procedures are required iii. Maintenance is required, inclusive of appropriate escalation measures iv. Preventive maintenance shall include: <ul style="list-style-type: none"> a. Perform Visual Inspection to ensure that all charger components are clean and functioning within designed specifications b. Perform Environmental Inspection to ensure and document that the system's environment is within specified operating conditions c. Perform Mechanical/Electrical Inspection d. Implement Updates v. Corrective Maintenance shall include: <ul style="list-style-type: none"> a. Replace the commercial grade electrical outlet periodically for Level 1 b. Replace the level 2 cable in case of damage under the warranty coverage c. Parameters' adjustment and small changes in operational logic <p>In case of non-conformity with these requirements and poor performances UNDP reserves the right to terminate the contract and ask for liquidation depending on the entity of the damage.</p>
--	--	---

6. Documentation

After award of contract and formalization of purchase order (PO), the supplier shall deliver all the documents listed in Table 4 by e-mail to UNDP ITM (itm.green.energy.team@undp.org) and copy UNDP Pakistan pramila.tripathi@undp.org.

Table 4 – Documents after award of contract

No	Document	Description
6.1	Project Plan Report	Complete report specifying all the steps that will be carried out to perform the project (from delivery to after sales services) with the corresponding timeline and who will be responsible of each step (vendor, local partner, or both).

6.2	Site Survey Report	<ul style="list-style-type: none"> i. Overview of the sites' details ii. Charger prospective location details (assessment, measurements, photos, etc.) iii. Electric distribution panel and wiring overview details (measurements; photos etc.), if applicable iv. Specific civil work requirements, if applicable
6.3	Bill of materials	Complete list of equipment to be supplied
6.4	Shipping documents	<ul style="list-style-type: none"> i. Invoice ii. Packing list iii. Bill of lading iv. Insurance
6.5	Warranty documents	<p>Warranty certification/documentation for the charging station, including summary overview of warranty arrangements (technical and logistical).</p> <ul style="list-style-type: none"> i. Overview of available warranty extension options for main components ii. Cost associated with warranty replacements during the warranty period will be borne by the supplier iii. Cost associated with the maintenance and technical support for the charging station during maintenance subscription will be borne by the supplier
6.6	Testing procedure	List of tests that will be carried out and respective pass/fail criteria
6.7	Installation and commissioning report	<ul style="list-style-type: none"> i. Charger Commissioning Report ii. Installation and commissioning activities, as-built drawings
6.8	User acceptance testing report and proof of performance to UNDP	Results of the individual tests and system performance test as outlined in the testing procedure; sign off by vendor, UNDP ITM and system user; any deviations and pending tasks need to be recorded.
6.9	Training manual/guide	<ul style="list-style-type: none"> i. Provide manuals ii. Include Charging Station Training guide and videos if available

6.10	O&M Manual and troubleshooting guide	<ul style="list-style-type: none"> i. Charging Station Maintenance and Troubleshooting Essentials Guide for Country Office (day-to-day operations) ii. Description of correct operation and maintenance and troubleshooting in case of errors iii. Preventive and corrective maintenance logs
6.11	O&M Schedule	Schedule of preventive maintenance activities
6.12	After sales service agreement	Agreement between UNDP, vendor and system user, defining the scope of the included maintenance (corrective and preventive) and technical support (on-site and remote).
6.13	Maintenance reports	Charging Station Regular Maintenance Technical Report(s).
6.14	Photo and video documentation	<p>Documentation of the charging station commissioning, and testing, such as:</p> <ul style="list-style-type: none"> i. Civil works during installation, if necessary ii. Training of local staff iii. Overview of the installed Charger
6.15	Vendor documents	<ul style="list-style-type: none"> i Proof of all necessary licenses and authorizations for electric works, or proof of a contract for performing electric works with a licensed company ii Proof of installed EV-chargers (Contract, Partnership agreement, etc.). Failure of provision of such documents will lead to applicant disqualification

7. Price and Delivery Schedule Forms

7.1 Price Schedule Option 1 – Acquisition Cost of the Regular Charging Station (USD/PKR)

Table 5 – Price Schedule Option 1

Item	Description	Quantity	Unit Price (XXX)	Total Price (XXX)
1.	Regular Charging Station	1		
2.	Cable for fast charger (Type 2)	1		
3.	Ancillaries and Cables (if applicable)	Lumpsum		
4.	Lightning and Surge Protection	Lumpsum		
5.	Site Preparation and Civil Works (if applicable)	Lumpsum		
6.	Installation, Charger Training, UAT and Commissioning	Lumpsum		
7.	Integration with existing local office electric distribution and wiring	Lumpsum		
8.	Freight cost to Pakistan			
9.	Total DPU price Pakistan – (Acquisition Cost)			
10.	Maintenance Cost Preventive and corrective maintenance by the vendor (for 3 years): after-sales services and technical support (on-site and/or remote) including continues online system and performance monitoring			
11.	TOTAL FINAL COST			

7.2 Price Schedule Option 2 – Acquisition Cost of the Smart Charging Station (USD/PKR)

Table 6: Price Schedule Option 2

Item	Description	Quantity	Unit Price (XXX)	Total Price (XXX)
1.	Smart Charging Station	1		
2.	Cable for fast charger (Type 2)	1		
3.	Ancillaries and Cables (if applicable)	Lumpsum		
4.	Lightning and Surge Protection	Lumpsum		
5.	Site Preparation and Civil Works (if applicable)	Lumpsum		
6.	Installation, Charger Training, UAT and Commissioning	Lumpsum		
7.	Integration with existing local office electric distribution and wiring	Lumpsum		
8.	Freight cost to Pakistan			
9.	Total DPU price Pakistan – (Acquisition Cost)			
10.	Maintenance Cost Preventive and corrective maintenance by the vendor (for 3 years): after-sales services and technical support (on-site and/or remote) including continues online system and performance monitoring			
11.	TOTAL FINAL COST			

8. Communications Management Plan

This section sets the communication framework for the life of the solar PV installation process. The overall desirable outcome is to keep all parties well informed in a timely fashion to avoid disruption and possible misaligned expectations.

	Communication Activity	Description	Frequency	Format/Channel	Deliverable	Responsible	Accountable	Consulted	Informed
1	Publishing RfQ	Final ToR & RfQ	As needed	e-mail	Final RFQ	GET, CO	CO	Vendors	GET/CO ²
2	Receipt of bids	Update on progress	Weekly	Meeting	Status update	CO	CO	GET	CO
3	Evaluation	Technical & financial	After submission	e-mail	Final assessment results	CO, GET	GET		CO
4	Winner Announcement	Outcome notification	After evaluation	e-mail	Informational message, PO	CO	GET	Vendors	CO
5	Shipping	Shipment of goods	As per provided timeline	e-mail	Invoice, Packing list, Bill of lading, Insurance	Vendor	Vendor	CO, GET	-
6	Customs clearance	Clearance of good at the CO	As needed	In person, e-mail	Clearance confirmation	CO	CO	Vendor	GET
7	Onsite Assessment	Assessment of all aspects of project	End of each installation	e-mail, In person		GET, Vendor	GET	Vendor	CO
8	Commissioning	Schedule for training, UAT, etc.	End of each installation	e-mail	Signed UAT, checklist, etc.	Vendor, GET	Vendor	CO	-
9	Invoice Payment	Receipting and disbursement	As per agreed plan	e-mail, phone	Invoice, payment confirmation	GET	GET	Vendor	CO
10	System Maintenance	Periodic and general support	As needed	e-mail, phone	Maintenance report	GET, Vendor	Vendor	CO	-

8.1 Project Team Contact Details

Name	Designation	E-mail	Phone #
Country Office (CO)	Head of General Admin Unit	yasir.khaldoon@undp.org	TBA
ITM GET (GET)	Project Manager	itm.green.energy@undp.org	+45 45 33 61 14
<<Vendor name>> (Vendor)	Solution provider	Vendor's email TBA	TBA

8.2 Communications Conduct

Meetings: - Ad-hoc project meetings will be convened whenever there is need for in-depth discussions that cannot be achieved through e-mail or telephone communication. A record of the meeting proceedings will be kept, particularly action points and agreed decisions.

Email: - E-mail communication is considered an official record in UNDP and this applies for e-mobility projects as well. Most issues and information with clear cut intents will be communicated through e-mail to the relevant parties. To keep all informed and for audit trail purposes, all parties should be copied as suitable, and the same thread used as much as possible. All circumstances that may impact on delivery timelines should be proactively communicated by the concerned party to allow for timely resolution.

Informal Communications: - For successful and timely project implementation, informal communication is a necessary ingredient. Given the nature of the projects, interaction between the parties, informal communication will form a sizable chunk of overall communication in this project. However, caution needs to be exercised to avoid negative consequences at a later stage. All communication that commits either part/stakeholder should be formally documented and communicated according

9. Delivery Requirement

Delivery Requirements	
Delivery date and time	Bidder shall deliver the goods after Contract signature.
Delivery Terms (INCOTERMS 2020)	DPU
Customs clearance (must be linked to INCOTERM)	<input type="checkbox"/> Not applicable <input checked="" type="checkbox"/> Shall be done by: <input checked="" type="checkbox"/> UNDP Pakistan <input type="checkbox"/> Supplier/bidder <input type="checkbox"/> Freight Forwarder
Exact Address(es) of Delivery Location(s)	United Nations Development Programme Pakistan Country Office UN Offices Serena Business Complex G5 Islamabad, Pakistan Contact details: Yasir Khaldoon yasir.khaldoon@undp.org
Distribution of shipping documents (if using freight forwarder)	The country office will proceed to the customs clearance once the supplier provides shipping documents. Once the shipping documents are shared with the country office, the supplier must await the greenlight of the country office before shipping the items. If items are shipped before green light is given, and in case storage costs, or any additional costs, are charged by Customs Authorities, it will be the responsibility of the supplier to pay for these extra expenses.
Training on Operations and Maintenance	1.All documentation must be in English. 2.Operation manuals must also be provided in Urdu.
Warranty Period	Warranty certification/documentation of the vehicle, including summary overview of warranty arrangements (technical and logistical). i. Overview of available warranty extension options for main components ii. Cost associated with warranty replacements during the warranty period will be borne by the supplier iii. Cost associated with the maintenance and technical support during maintenance subscription will be borne by the supplier
Local service support requirements	Local Service Support Requirements: - Supplier is required to have a branch established in Asia, and preferably in Pakistan. - Supplier must have a local partner who is a legally representative or subsidiary of the brand, not just a sales office.
Preferred Mode of Transport	Air/Land/Sea

ANNEX I: QUOTATION SUBMISSION FORM

Bidders are requested to complete this form, including the Company Profile and Bidder's Declaration, sign it and return it as part of their quotation along with Price and Delivery Schedule Forms. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.	
RFQ reference:	Click or tap here to enter text.	Date: Click or tap to enter a date.

Company Profile

Item Description	Detail
Legal name of bidder or Lead entity for JVs	Click or tap here to enter text.
Legal Address, City, Country	Click or tap here to enter text.
Website	Click or tap here to enter text.
Year of Registration	Click or tap here to enter text.
Legal structure	Choose an item.
Are you a UNGM registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, insert UNGM Vendor Number
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your organization demonstrate significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of	<input type="checkbox"/> Yes <input type="checkbox"/> No

trade institutions promoting such issues (If yes, provide a Copy)				
Is your company a member of the UN Global Compact	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Bank Information	Bank Name: Click or tap here to enter text. Bank Address: Click or tap here to enter text. IBAN: Click or tap here to enter text. SWIFT/BIC: Click or tap here to enter text. Account Currency: Click or tap here to enter text. Bank Account Number: Click or tap here to enter text.			
Previous relevant experience: 3 contracts				
Name of previous contracts	Client & Reference Contact Details including e-mail	Contract Value	Period of activity	Types of activities undertaken

Bidder's Declaration

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Requirements and Terms and Conditions: I/We have read and fully understand the RFQ, including the RFQ Information and Data, Schedule of Requirements, the General Conditions of Contract, and any Special Conditions of Contract. I/we confirm that the Bidder agrees to be bound by them.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm that the Bidder has the necessary capacity, capability, and necessary licenses to fully meet or exceed the Requirements and will be available to deliver throughout the relevant Contract period.
<input type="checkbox"/>	<input type="checkbox"/>	Ethics: In submitting this Quote I/we warrant that the bidder: has not entered into any improper, illegal, collusive or anti-competitive arrangements with any Competitor; has not directly or indirectly approached any representative of the Buyer (other than the Point of Contact) to lobby or solicit information in relation to the RFQ ;has not attempted to influence, or provide any form of personal inducement, reward or benefit to any representative of the Buyer.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm to undertake not to engage in proscribed practices, , or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we have read the United Nations Supplier Code of Conduct : https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct and acknowledge that it provides the minimum standards expected of suppliers to the UN.
<input type="checkbox"/>	<input type="checkbox"/>	Conflict of interest: I/We warrant that the bidder has no actual, potential, or perceived Conflict of Interest in submitting this Quote or entering a Contract to deliver the Requirements. Where a Conflict of Interest arises during the RFQ process the bidder will report it immediately to the Procuring Organisation's Point of Contact.

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Prohibitions, Sanctions: I/We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium members or subcontractors or suppliers for any part of the contract is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists and have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization.
<input type="checkbox"/>	<input type="checkbox"/>	Bankruptcy: I/We have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future.
<input type="checkbox"/>	<input type="checkbox"/>	Offer Validity Period: I/We confirm that this Quote, including the price, remains open for acceptance for the Offer Validity.
<input type="checkbox"/>	<input type="checkbox"/>	I/We understand and recognize that you are not bound to accept any Quotation you receive, and we certify that the goods offered in our Quotation are new and unused.
<input type="checkbox"/>	<input type="checkbox"/>	By signing this declaration, the signatory below represents, warrants and agrees that he/she has been authorised by the Organization/s to make this declaration on its/their behalf.

Signature: _____

Name: [Click or tap here to enter text.](#)

Title: [Click or tap here to enter text.](#)

Date: [Click or tap to enter a date.](#)

Annex II: Compliance Response Form		Understood	Understood with reservations	Comments	
Introduction					
1	Introduction	<input type="checkbox"/>	<input type="checkbox"/>		
1.2	Sustainable Development Goals	<input type="checkbox"/>	<input type="checkbox"/>		
1.2	Smart UN Facilities	<input type="checkbox"/>	<input type="checkbox"/>		
1.3	7-Step Green Energy Process	<input type="checkbox"/>	<input type="checkbox"/>		
Project Description					
Error! Reference source not found.	Project Description	<input type="checkbox"/>	<input type="checkbox"/>		
3	Duties and responsibilities	<input type="checkbox"/>	<input type="checkbox"/>		
4	Statement of Work	<input type="checkbox"/>	<input type="checkbox"/>		
4.1	Vendor	<input type="checkbox"/>	<input type="checkbox"/>		
4.2	After-sales service and response time	<input type="checkbox"/>	<input type="checkbox"/>		
4.3 Technical Requirements		<input type="checkbox"/>	<input type="checkbox"/>		
4.3.1	Charger Type	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.2	Power (kW)	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.3	Output Voltage	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.4	Compatibility	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.5	HMI and Communications	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.6	Standards	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.7	Safety	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.8	Grounding	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.9	Metering	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.10	Mounting	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.11	Features	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.12	Configurations	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.13	Online Monitoring	<input type="checkbox"/>	<input type="checkbox"/>		

4.3.14	Charging Cable	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.15	Warranty	<input type="checkbox"/>	<input type="checkbox"/>		
4.3.16	Parts, Repairs and Training Manuals	<input type="checkbox"/>	<input type="checkbox"/>		
4.4	Smart Charging Station (Option 2)	<input type="checkbox"/>	<input type="checkbox"/>		
4.4.1	Additional Features	<input type="checkbox"/>	<input type="checkbox"/>		
4.5	Standard equipment	<input type="checkbox"/>	<input type="checkbox"/>		
5	Tasks and responsibilities	<input type="checkbox"/>	<input type="checkbox"/>		
6	Documentation	<input type="checkbox"/>	<input type="checkbox"/>		
6.1	Project Plan Report	<input type="checkbox"/>	<input type="checkbox"/>		
6.2	Site Survey Report	<input type="checkbox"/>	<input type="checkbox"/>		
6.3	Bill of materials	<input type="checkbox"/>	<input type="checkbox"/>		
6.4	Shipping documents	<input type="checkbox"/>	<input type="checkbox"/>		
6.5	Warranty documents	<input type="checkbox"/>	<input type="checkbox"/>		
6.6	Testing procedure	<input type="checkbox"/>	<input type="checkbox"/>		
6.7	Installation and commissioning report	<input type="checkbox"/>	<input type="checkbox"/>		
6.8	User acceptance testing report and proof of performance to UNDP	<input type="checkbox"/>	<input type="checkbox"/>		
6.9	Training manual/guide	<input type="checkbox"/>	<input type="checkbox"/>		
6.10	O&M Manual and troubleshooting guide	<input type="checkbox"/>	<input type="checkbox"/>		
6.11	O&M schedule	<input type="checkbox"/>	<input type="checkbox"/>		
6.12	After sales service agreement	<input type="checkbox"/>	<input type="checkbox"/>		
6.13	Maintenance reports	<input type="checkbox"/>	<input type="checkbox"/>		
6.14	Photo and video documentation	<input type="checkbox"/>	<input type="checkbox"/>		
6.15	Vendor documents	<input type="checkbox"/>	<input type="checkbox"/>		

Who we are

UNDP ITM/CIAS

Our Vision

Creating Smart Facilities to build local capacity and inspire a movement.

Our Mission

To support and guide Country Offices in leveraging technology for efficient delivery on the organization's mandate.

The Information and Technology Management is the leader in digital transformation, so UNDP can be agile and effective in its global delivery.

UNDP ITM is headquartered in New York and UN City Copenhagen Denmark, a smart facility which hosts 9 UN agencies and is built with a high focus on sustainability. Our combined efforts provide standardized practices for UNDP country offices to achieve the Sustainable Development Goals and incite other local and international entities to follow our lead.

To illustrate our work, in the wake of the 2014 West Africa Ebola outbreak, country offices in Guinea, Sierra Leone and Liberia could not rely on the grid to meet their energy requirements and diesel shortages restricted access to a sufficient power supply. In order to address this, UNDP ITM leveraged its experience in implementing smart facilities to roll out solar solutions in the affected countries.

Following this outbreak, UNDP ITM has aided the installation of solar panel systems in over 13 countries worldwide.

We look forward to implementing the Smart Facilities concept even further.