**Section 6: Returnable Bidding Forms / Checklist**

This form serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted.

Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS 22.

**Technical Bid:**

<table>
<thead>
<tr>
<th>Have you duly completed all the Returnable Bidding Forms?</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Form A: Bid Submission Form</td>
</tr>
<tr>
<td>□ Form B: Bidder Information Form</td>
</tr>
<tr>
<td>□ Form C: Joint Venture/Consortium/Association Information Form</td>
</tr>
<tr>
<td>□ Form D: Qualification Form</td>
</tr>
<tr>
<td>□ Form E: Format of Technical Bid</td>
</tr>
<tr>
<td>□ Form G: Form of Bid Security</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
</tr>
</tbody>
</table>

**Price Schedule:**

<table>
<thead>
<tr>
<th>Form F: Price Schedule Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
</tr>
</tbody>
</table>
Form A: Bid Submission Form

Name of Bidder: [Insert Name of Bidder]  
Date: [Select date]

ITB reference: UNDP-TUR-ITB(UR)-2021/011

We, the undersigned, offer to supply the goods and related services required for [Insert Title of goods and services] in accordance with your Invitation to Bid No. [Insert ITB Reference Number] and our Bid. We hereby submit our Bid, which includes this Technical Bid and Price Schedule.

Our attached Price Schedule is for the sum of [Insert amount in words and figures and indicate currency].

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium/Association members or subcontractors or suppliers for any part of the contract:

a) 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.

b) 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.

c) have no conflict of interest in accordance with Instruction to Bidders Clause 4.

d) do not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with our firm in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN post-employment restrictions published in ST/SGB/2006/15);

e) 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.

f) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, 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 embrace the principles of the United Nations Supplier Code of Conduct and adhere to the principles of the United Nations Global Compact.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/or sanctioning by the UNDP.

We offer to supply the goods and related services in conformity with the Bidding documents, including the UNDP General Conditions of Contract and in accordance with the Schedule of Requirements and Technical Specifications.

Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Bid and bind it should UNDP accept this Bid.

Name: _____________________________________________________________

Title: ______________________________________________________________

Date: ______________________________________________________________

Signature: ____________________________________________________________ [Stamp with official stamp of the Bidder]
<table>
<thead>
<tr>
<th><strong>Form B: Bidder Information Form</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Legal name of Bidder</strong></td>
</tr>
<tr>
<td><strong>Legal address</strong></td>
</tr>
<tr>
<td><strong>Year of registration</strong></td>
</tr>
</tbody>
</table>
| **Bidder’s Authorized Representative Information** | Name and Title: [Complete]  
Telephone numbers: [Complete]  
Email: [Complete] |
| **Are you a UNGM registered vendor?** | ☐ Yes ☐ No  
If yes, [insert UGNM vendor number] |
| **Are you a UNDP vendor?**        | ☐ Yes ☐ No  
If yes, [insert UNDP vendor number] |
<p>| <strong>Countries of operation</strong>        | [Complete]                          |
| <strong>No. of full-time employees</strong>    | [Complete]                          |
| <strong>Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):</strong> | [Complete] |
| <strong>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):</strong> | [Complete] |
| <strong>Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)</strong> | [Complete] |
| <strong>Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues</strong> | [Complete] |
| <strong>Is your company a member of the UN Global Compact</strong> | [Complete] |
| <strong>Contact person that UNDP may contact for requests for</strong> | Name and Title: [Complete] |</p>
<table>
<thead>
<tr>
<th>clarification during Bid evaluation</th>
<th>Telephone numbers: [Complete]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email: [Complete]</td>
<td></td>
</tr>
<tr>
<td>Please attach the following documents:</td>
<td>Certificate of Incorporation/ Business Registration</td>
</tr>
<tr>
<td></td>
<td>Trade name registration papers, if applicable</td>
</tr>
<tr>
<td></td>
<td>Signature Circular/Power of Attorney</td>
</tr>
<tr>
<td></td>
<td>Certification or authorization to act as agent / dealer / distributer on behalf of the Manufacturer.</td>
</tr>
<tr>
<td></td>
<td>Patent Registration Certificates if any of technologies submitted in the Bid is patented by the Bidder.</td>
</tr>
<tr>
<td></td>
<td>Export Licenses, if applicable</td>
</tr>
<tr>
<td></td>
<td>Official Letter of Appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country.</td>
</tr>
</tbody>
</table>
Form C: Joint Venture/Consortium/Association Information Form

Name of Bidder: [Insert Name of Bidder]  
Date: Select date

ITB reference: UNDP-TUR-ITB(UR)-2021/011

To be completed and returned with your Bid if the Bid is submitted as a Joint Venture/Consortium/Association.

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Partner and contact information (address, telephone numbers, fax numbers, e-mail address)</th>
<th>Proposed proportion of responsibilities (in %) and type of goods and/or services to be performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[Complete]</td>
<td>[Complete]</td>
</tr>
<tr>
<td>2</td>
<td>[Complete]</td>
<td>[Complete]</td>
</tr>
<tr>
<td>3</td>
<td>[Complete]</td>
<td>[Complete]</td>
</tr>
</tbody>
</table>

**Name of leading partner**  
(with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution)  
[Complete]

Bidders shall attach a copy of notarized JV/Consortium/Association agreement signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture.

We hereby confirm that if the contract is awarded, all parties of the Joint Venture/Consortium/Association shall be jointly and severally liable to UNDP for the fulfillment of the provisions of the Contract.

Name of partner: ________________________        Name of partner: ________________________
Signature: __________________________        Signature: __________________________
Date: __________________________        Date: __________________________

Name of partner: ________________________        Name of partner: ________________________
Signature: __________________________        Signature: __________________________
Date: __________________________        Date: __________________________

Name of partner: ________________________        Name of partner: ________________________
Signature: __________________________        Signature: __________________________
Date: __________________________        Date: __________________________
Form D: Eligibility and Qualification Form

Name of Bidder: [Insert Name of Bidder]  
Date:  
ITB reference: UNDP-TUR-ITB(UR)-2021/011

If JV/Consortium/Association, to be completed by each partner.

History of Non-Performing Contracts

☐ Non-performing contracts did not occur during the last 3 years

☐ Contract(s) not performed in the last 3 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-performed portion of contract</th>
<th>Contract Identification</th>
<th>Total Contract Amount (current value in TRY)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Name of Client:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Address of Client:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reason(s) for non-performance:</td>
<td></td>
</tr>
</tbody>
</table>

Litigation History (including pending litigation)

☐ No litigation history for the last 3 years

☐ Litigation History as indicated below

<table>
<thead>
<tr>
<th>Year of dispute</th>
<th>Amount in dispute (in TRY)</th>
<th>Contract Identification</th>
<th>Total Contract Amount (current value in TRY)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Name of Client:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Address of Client:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Matter in dispute:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Party who initiated the dispute:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Status of dispute:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Party awarded if resolved:</td>
<td></td>
</tr>
</tbody>
</table>

Previous Relevant Experience

Please list only previous similar assignments successfully completed in the last 5 years.

List only those assignments for which the Bidder was legally contracted by the Client as a company or was one of the Consortium/JV partners. Assignments completed by the Bidder’s individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder’s partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by UNDP.
In the case of a bidder submit a contract value in a currency other than TRY (Turkish Lira) that value shall be converted to TRY by using UN Operational Rates of Exchange of the contract date at the above table.

Bidders shall submit Statements of Satisfactory Performance (i.e. Reference Letters, Work Completion Certificates) along with their bids. Reference letters and/or Completion Certificates shall include the information requested in above table at minimum.

### Financial Standing

<table>
<thead>
<tr>
<th>Annual Turnover for the last 3 years*</th>
<th>Year</th>
<th>TRY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td>TRY</td>
</tr>
<tr>
<td></td>
<td>Year</td>
<td>TRY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Latest Credit Rating (if any), indicate the source</th>
<th>Year</th>
<th>TRY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td>TRY</td>
</tr>
<tr>
<td></td>
<td>Year</td>
<td>TRY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial information (in TRY equivalent*)</th>
<th>Historic information for the last 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information from Balance Sheet</td>
<td></td>
</tr>
<tr>
<td>Total Assets (TA)</td>
<td></td>
</tr>
<tr>
<td>Total Liabilities (TL)</td>
<td></td>
</tr>
<tr>
<td>Current Assets (CA)</td>
<td></td>
</tr>
<tr>
<td>Current Liabilities (CL)</td>
<td></td>
</tr>
</tbody>
</table>

| Information from Income Statement         |                                           |
| Total / Gross Revenue (TR)                |                                           |
| Profits Before Taxes (PBT)                |                                           |
| Net Profit                                |                                           |
| Current Ratio                             |                                           |

*In the case of financial values are in a currency other than TRY (Turkish Lira) bidders shall convert the value which was effective for 31 December of each corresponding year by using UN Operational Rates of Exchange for the relevant period and specify TRY values in above tables. UN operational rate of exchange are available at the following website: https://treasury.un.org/operationalrates/OperationalRates.php#E

Bidders shall submit copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

a) Historic financial statements must be audited by a certified public accountant.
b) Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.
c) Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies.

Form E: Format of Technical Bid

Name of Bidder: [Insert Name of Bidder] 
Date: 
ITB reference: UNDP-TUR-ITB(UR)-2021/011 

Technical Compliance Table

Bidders shall fill out below table by indicating the Brand Name of the products offered as well as the specifications of the offered products corresponding to the specifications listed in below table.

Offered specifications shall meet the minimum requirements stipulated in below table.

<table>
<thead>
<tr>
<th>Item to be supplied description//Tedarik edilecek ürün tanıımı</th>
<th>Set Content // Set İçeriği</th>
<th>Quantity // Miktar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. 340 Wp (Single or 2x170 Wp) crystal based Solar Module</td>
<td>1 X 340Wp or // veya 2 X 170Wp</td>
<td></td>
</tr>
<tr>
<td>MS 1200 W Modified Sine Inverter</td>
<td>1 unit</td>
<td></td>
</tr>
<tr>
<td>20A 12/24 V Charge Regulator (with MPPT feature and LCD screen)</td>
<td>1 unit</td>
<td></td>
</tr>
<tr>
<td>200Ah Gel Battery (2x100 Ah or 1x200 Ah)</td>
<td>1 X 200Ah or // veya 2 X 100Ah</td>
<td>630 sets // 630 set</td>
</tr>
<tr>
<td>PV substructure / Panel-Electric Cabling (including consumables such as battery cable, protection fuse, cable duct, battery terminals or lugs)</td>
<td>1 unit</td>
<td></td>
</tr>
</tbody>
</table>

Technical Specifications

Offered technical specifications by the Bidder shall be inserted in English.

1. SOLAR PANEL
   1.1. FV modules must be within the instantaneous output power tolerance of [0, + 5Wp]. All modules must be ordered with positive power tolerance only. All PV modules shall be 'higher than nominal' of the power output report of
the flash test at the manufacturing plant. Negative power tolerance shall not be accepted.

1.2. The PV panel type to be used shall have a crystalline structure. The power of the PV Solar Panel (Solar Module) must be minimum 340 Wp. PV panels must be of identical / same brand PV module manufacturers. All Solar PV modules shall be of the same brand, from the same product line, and have the same type and power. PV Modules shall be "PID free".

1.3. The connectors of the PV modules must be of the original MC4 family. Connectors to be used in the DC system must be of the same brand, model and identical. The connectors of the PV modules must meet the IP67 water resistance standard.

1.4. PV module efficiency Standard Test Conditions (Standard Test Conditions: shall be at least% 18 under 1000W / m² radiation 25ºC module temperature and AM = 1.5 spectrum), and PV modules with an efficiency of less than 18% shall not be accepted.

1.5. Against power drops caused by shadowing, at least 3 of the PV modules shall have by-pass diodes. Protection shall be provided so that there is no current flow to the PV modules, when energy is not generated.

1.6. The front glasses of PV modules must have ARC (Anti Reflective Coating) and the değerinden yüksek olacak. Negatif güç tolerate kabul edilmeyecektir.


1.3. FV modüllerinin konnektörleri orijinal MC4 familyasından olmalıdır. DC sistemde kullanılan konnektörler aynı marka, model ve özdeş olmalıdır. FV modüllerin konnektörleri IP67 suya dayanıklılık standardını sağlamalıdır.

1.4. FV modül verimi Standard Test Koşulları (Standart Test Koşulları: 1000W/m² ışınım, 25ºC modül sıcaklığı ve AM=1,5 spektrum) altında en az %18 olacaktır, verimliliği % 18’in altında olan FV modüller kabul edilmeyecektir.

1.5. Gölgelenmenin neden olduğu güç düşüşlerine karşı, FV modüller az 3 adet by-pass diyotlu olacaktır. Enerjinin üretimini durumda FV modüllere akım geçişi olmayacak şekilde koruma yapılacaktır.

1.6. FV modüllerin ön camları ARC'lı (Anti Reflektif Coating) ve camların geçirgenlik oranı EN 12150 standartlarında en az %91 geçirgenliğe sahip SPF sertifikalı olmalıdır. Harici olarak uygulanacak...
transmittance rate of glasses must be SPF certified with at least 91% transmittance in EN 12150 standards. It shall be resistant to external stresses. (For example, the glass shall not break easily in case of throwing rocks or against impacts such as ice and hail.)

1.7. PV modules and fasteners shall have wind resistance with a capacity to withstand at least 130 km / hour wind.

1.8. PV Modules shall be able to withstand a wind load of min. 2400 Pa and a snow load of min. 5400 Pa. It shall be in accordance with standards (IEC 61215-1, IEC 61215-2, IEC 61730, Salt Mist Corrosion Resistant (IEC 61701, IEC 62716), Environmental tests (Sand) (IEC 60068-2), Potentially induced deterioration (IEC 62804)) and the relevant Fire Resistance (IEC 61730 Class C) standards shall be submitted with the offer.

1.9. PV module connection box must be rated (Junction Box) IP 67 protection class at least and there must be no cover falling problem in hot or cold weathers.

1.10. The (+) and (-) poles of the PV Module direct current output cables and convectors shall be easily distinguishable.

1.11. The direct current output cables of the PV module shall be 2 cables with a length of at least 10 meters for each pole, in compliance with TS EN50525-2-11 standards, with a minimum cross-section of 6 mm² (1 red, one black). (2 x 6 mm² H05VV-
1.12. PV modules must comply with CE requirements and shall have CE Certificate.

1.13. Frames mounted with bolts on solar panels shall not be accepted. Panel frames must be pressed and at the same time punched.

1.14. The frame of PV modules must be made of corrosion resistant material and have an anodized thickness of at least 15 microns and a wall thickness of 1.5 mm of stainless steel (anodized aluminium is preferred). Aluminium material shall have 6063-T5 quality as a minimum.

1.15. PV modules shall operate smoothly within a temperature range of -40 °C to + 85 °C and a relative humidity range of 0 to 90%. This must be readable from the provided technical document.

1.16. The warranty documents given by the manufacturer for the Modules offered. When necessary, values under normal operating conditions may also be requested.

1.17. PV modules to be used in the solar energy system shall have been manufactured in 2020 or later.

1.18. The lifespan of the PV modules must have a minimum of 10-15 years of mechanical and 25-30 years of performance warranty. Linear energy guarantee shall be such that it shall provide at least 90% of the panel power at the end of 10-15 years and
at least 80% at the end of 25-30 years. Linear guarantee for panels must be presented in the offer.

1.19. Each of PV modules shall have at least 2 serial number barcode (one of which shall be inside the glass of the module) and 1 label. The FV module label shall include, but is not limited to, at least the following:

1.19.1. Vmpp, Voc Imp, loc, Pmpp, NOCT values,
1.19.2. Max operating voltage value
1.19.3. Length, weight data
1.19.4. Power tolerance,
1.19.5. Quality class,
1.19.6. Test conditions (STC) (Radiation temperature humidity)
1.19.7. Brand, model, serial number details
1.19.8. CE marking,
1.19.9. Country of Production
1.19.10. Name of the Manufacturer Company

1.20. When requested, the contractor company must give the laboratory test results of the panels.

1.21. In addition, officials will be able to participate in panel tests when requested.

1.22. During the construction of the panels, the logos of the Ministry of Agriculture and Forestry, IFAD, URDP Project shall be prepared to be clearly visible after applying an in-glass lamination process inside the panels.

1.23. The serial number of each panel shall be readable in the window and the test report shall be arranged in the teklifte sunulmalıdır.

1.19. FV modüllerin her birinde en az 2 adet (Biri modülün camının içinde olacaktır) seri numarası barkodu ve 1 adet etiket bulunacaktır. FV modül etiketi bunlarla sınırlı olmamak üzere en az aşağıdaki içerecektir.

1.19.1. Vmpp, Voc Imp, loc, Pmpp, NOCT değerleri,
1.19.2. Max çalışma gerilimi değerı
1.19.3. Uzunluk, ağırlık verileri,
1.19.4. Güç toleransı,
1.19.5. Kalite sınıfı,
1.19.6. Test koşulları (STC) (Işınım sıcaklık nem)
1.19.7. Marka, model, seri numarası bilgileri
1.19.8. CE işareti,
1.19.9. Üretilen Ülke.
1.19.10. Üretici Firma İsmi

1.20. İstendiğinde yüklenici firma panellere ait laboratuvar test sonuçlarını vermek zorundadır.

1.21. Ayrıca istendiğinde yetkililer panel testlerine katılabilecektir.

1.22. Panellerin imalatı sırasında Tarım ve Orman Bakanlığı, IFAD, KDAK Projesi logoları panellerin içine cam içi laminasyon işlemi uygulanarak net olarak görülecek şekilde hazırlanacaktır.

1.23. Her bir panelin mutlaka seri numarası cam içinde okunur şekilde olacak ve test raporu seri numarasına göre düzenlenenecektir.
2. INVERTER (Inverter, Modified Sine)

2.1. It shall have a nominal power of 1200W, input voltage shall be: 12 Volt DC voltage, output voltage shall be 220/230 Volt AC 50 Hertz.

2.2. The inverter shall have overload, high temperature, low voltage, and short circuit protections features.

2.3. The inverter shall have an operating temperature range of 0 - +40 °C and shall be able to operate at a maximum relative humidity of 90%.

2.4. The inverter shall have a minimum efficiency of 90%.

2.5. Inverters shall be able to operate with gel battery.

2.6. In case of overload, overvoltage, and short circuit, it shall protect the system and restart the inverter.

2.7. It must be able to give an audible warning in case of overload and heating.

2.8. The inverter’s voltage input must be in the range of at least 10.5 Vdc - maximum 16 Vdc.

2.9. It must have Low voltage alarm (9.5 V+,−) to protect the battery. It must have protection fuses.

2.10. MS inverter must comply with CE requirements and shall have CE Certificate.

2.11. The inverter must be guaranteed for at least 2 years.

2.12. It shall have EN60950, EN55022 Standards.

2.13. It shall have a cooling fan.

2.14. In case of overload, overvoltage, and short circuit, it shall protect the system and restart the inverter.

2.15. It must be able to give an audible warning in case of overload and heating.

2.16. The inverter’s voltage input must be in the range of at least 10.5 Vdc - maximum 16 Vdc.

2.17. It must have Low voltage alarm (9.5 V+,−) to protect the battery. It must have protection fuses.

2.18. MS inverter must comply with CE requirements and shall have CE Certificate.

2.19. The inverter must be guaranteed for at least 2 years.

2.20. It shall have EN60950, EN55022 Standards.

2.21. It shall have a cooling fan.

3. SOLAR ŞARJ REGÜLATÖRÜ
2.14. It shall have minimum 1 USB output.

3. SOLAR CHARGE REGULATOR
3.1. 12 Volt / 24 Volt 20 Amps Automatic sensing charge regulator
3.2. The charging module shall have MPPT feature.
3.3. 12 / 24V automatic recognition, load operating mode: ON / OFF
3.4. The battery charge regulator shall charge the batteries using the electrical energy generated by the solar panels, and at the same time provide protection so as not to put the batteries in overload and discharging conditions. The system voltage shall have an output according to the battery to be used.
3.5. It shall be compatible with high level gel battery.
3.6. Float voltage shall be 13.8V (13V-15V adjustable), Boost voltage shall be 14.4V.
3.7. Battery overvoltage protection shall be 16.5 V.
3.8. The input voltage value of the device shall be at least 50 V.
3.9. It shall have a digital display to show the charge status and errors.
3.10. The solar charger must have heat compensated battery charging capability.
3.11. The operating range shall be outdoor temperature values of -20…. + 55°C.
3.12. It must comply with CE requirements and shall have CE Certificate.

<table>
<thead>
<tr>
<th>3.1. 12 Volt / 24 Volt 20 Amps Automatic sensing charge regulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2. The charging module shall have MPPT feature.</td>
</tr>
<tr>
<td>3.3. 12 / 24V automatic recognition, load operating mode: ON / OFF</td>
</tr>
<tr>
<td>3.4. The battery charge regulator shall charge the batteries using the electrical energy generated by the solar panels, and at the same time provide protection so as not to put the batteries in overload and discharging conditions. The system voltage shall have an output according to the battery to be used.</td>
</tr>
<tr>
<td>3.5. It shall be compatible with high level gel battery.</td>
</tr>
<tr>
<td>3.6. Float voltage shall be 13.8V (13V-15V adjustable), Boost voltage shall be 14.4V.</td>
</tr>
<tr>
<td>3.7. Battery overvoltage protection shall be 16.5 V.</td>
</tr>
<tr>
<td>3.8. The input voltage value of the device shall be at least 50 V.</td>
</tr>
<tr>
<td>3.9. It shall have a digital display to show the charge status and errors.</td>
</tr>
<tr>
<td>3.10. The solar charger must have heat compensated battery charging capability.</td>
</tr>
<tr>
<td>3.11. The operating range shall be outdoor temperature values of -20…. + 55°C.</td>
</tr>
<tr>
<td>3.12. It must comply with CE requirements and shall have CE Certificate.</td>
</tr>
</tbody>
</table>

4. GEL BATTERY
4.1. Batteries shall be long-lasting,
suitable for solar energy system, maintenance-free, and since the system will operate in a closed cabinet, the accumulators shall be in gel form.

4.2. It shall have a reliable constant output current. Batteries to be used shall be resistant to deep discharge and shall have an enclosed structure.

4.3. It shall have stable performance.

4.4. The number of battery cycles must be > 1000 at the 50% DOD level. It shall be 100% maintenance-free. A 2-year warranty must be given by the manufacturer.

4.5. Batteries shall work smoothly at 0 – 90% relative humidity at an ambient temperature range of 0 to + 50° C, when it is installed at an elevation of 0 – 2,000 m.

4.6. The operating voltage shall be at least 12 VDC.

4.7. The battery shall be at least 100 Ah.

4.8. There shall not be more than 120 days of difference between the date of manufacture of the batteries and the date of delivery to the administration. The name of the manufacturer company, date of manufacture, nominal voltage, “+” and “-” signs and voltage shall be indelibly written on the accumulator.

5. SOLAR CABLE

5.1. The PV energy cables on the PV module shall be resistant to high temperature and heat, UV-resistant, double akümülatörler jel yapida olacaktır.


4.3. İstikrarlı performansa sahip olacaktır.

4.4. Akülerin döngü sayısı %50 DOD seviyesinde >1000 olmalıdır. %100 bakım gerektirmeyecektir. Üretici tarafından 2 yıl garanti verilmelidir.

4.5. Aküler; 0 ve +50 °C ortam ısısında, 0 – 2000 m. Yükseklikte kurulu bulunduğu hallerde, % 0 – 90 bağlı nem oranında sorunsuz çalışacaktır.

4.6. Çalışma gerilimi en az 12 Vpc olacaktır.

4.7. Akü en az 100 Ah olacaktır.

4.8. Akülerin imalat tarihi ile idareye teslim tarihi arasında 120 günden fazla olmayacaktır. Akümülatör üzerine imalatçı firma adı, imalat tarihi nominal gerilimi “+” ve “-” işaretleri, gerilimi silinmeyecek şekilde olacaktır.

5. SOLAR KABLO

5.1. FV modül üzerindeki FV enerji kabloları yüksek sıcaklık ve isıya dayanıklı, UV dirençli, çift izoleli, halojensiz, kurşunuzsuz (tercihen), nominal kablo kesiti TÜV tarafından onaylanmış, TS EN 60228 ve IEC 60287 standardına uygun olarak üretilmiş olacaktır.

5.2. Solar kabloları 90°C (doksan derece) çalışma sıcaklığında sorunsuz kullanılacaktır.

5.3. FV – solar kablo ve solar
insulated, halogen-free, lead-free (preferably), and shall be produced in accordance with TS EN 60228 and IEC 60287 standards.

5.2. Solar cables shall be used at an operating temperature of 90 °C (ninety degrees) without any problems.

5.3. In the PV - solar cable and solar cable-charge regulator-inverter connections, MC4 type male and female type connectors shall be used. Connectors, special fasteners, and sockets shall be suitable for an operating temperature range of -40 °C (minus forty degrees) to + 90°C (plus ninety degrees), suitable for high current and approved type.

6. **PV SUB-CONSTRUCTION**

6.1. Solar energy panels shall be designed to be suitable for transportation.

6.2. The metal construction to be used in the systems shall be made of a profile with a wall thickness of at least 2-3 mm.

6.3. In the solar panels, there shall be aluminium / galvanized connection apparatus (clamps) and construction material in accordance with the portable system. All screws, nuts, intermediate and connection equipment to be used in the construction system shall be stainless. Stainless equipment shall have at least A2-70 quality.

7. **BOARD -ELECTRIC INSTALLATION**

7.1. Boards must be suitable for carrying, with handles and

---

**kablo şarj regulatörü-**

**inverter bağlantılarda MC4**

**tipi erkek ve dişi tip **

**konektörler kullanılacaktır.**

**Konektörler, özel bağlantı**

**elementleri ve soketler**

**- 40°C(eksi kırk derece) ile**

**+90°C (arti doksan derece)**

**arası işletme sıcaklığına**

**uygun, yüksek akıma uygun,**

**onaylı olacaktır.**

---

**6. FV ALT KONSTRÜKSİYON**

6.1. Güneş enerji panelleri,

**taşıma** **uygun bir şekilde**

**tasarlanmış olacaktır.**

6.2. Sistemlerde kullanılacak

**metal konstrüksiyon en az 2-3**

**mm et kalınlığında profilden**

**imal edilecektir. Güneş**

**panellerinde taşınabilir**

**sistemle uygun olarak**

**alüminyum/galvaniz bağlantılı**

**aparatları (clamp) ve**

**konstrüksiyon malzemesi**

**bulunacaktır. Konstrüksiyon**

**sisteminde kullanılacak tüm**

**vida, somun, ara ve bağlama**

**ekipmanları paslanmaz**

**yapıda olacaktır. Paslanmaz**

**ekipmanlar en az A2-70**

**kalitesinde olacaktır.**

---

**7. PANO -ELEKTRİK TESİSATI**

7.1. Panolar taşıma uygun,

**kulplu, kapaklı** **olmalıdır.**

7.2. Aşırı ısınmayı önlemek için

**hava giriş kanalları** **olmalıdır.**

7.3. Pano yüzeyinde olacak şekilde

**toplak 220 AC çıkış** **çoçuk**

**korumalı, gerekli ikaz etiketli**

**ve sigorta korumalı en az 1**

**adet. Priz, 2 adet 12 volt, 1**

**adet 12 volt çakmak** **çıkışı**

**olmalıdır.**

---

67
7.2. There must be air intake channels to prevent overheating.

7.3. On the surface of the board, there must be 220 AC output, at least 1 piece of Socket, 2 pcs of 12 volt and 1 pc of 12-volt cigarette lighter outlet with child protection, necessary warning label and fuse protection.

7.4. Inside the board, 1 fuse shall be added, according to the inverter’s output power.

7.5. The boards shall bear metal tags containing the date of manufacture, model and serial numbers, and these tags must be visible on the board. All warning, death danger signs, operating instructions and warning instructions plates that must be present on the board and other main components (equipments) shall be properly attached.

7.6. It shall allow the charge regulator screen to be seen on the cover.

7.7. It shall be designed so that all switches and screens are on the outer cover.

7.8. All components (Battery-Inverter-Charge Regulator) shall be fixed so that the components are not damaged during transportation.

7.9. The board must be manufactured of at least 0.8 mm DKP sheet metal.

7.10. Boards shall be delivered painted in appropriate colours.

7.11. In order to transfer energy between the board and panel, HOSW-F
type cable must be placed according to the construction approved by the administration.

7.12. For visibility, the phrase "UPLANDS RURAL DEVELOPMENT PROJECT MERSIN 2021" must be written on the boards by paint, plate, or sticker. The plates used must be prepared in an easily readable size and mounted in such a way that they cannot fall. If paint or stickers are to be used, they must be prepared in easily readable sizes, and they must be long-lasting by using materials that shall not fade.

7.13. All electrical and electronic devices belonging to the solar energy system to be installed and the cabinets which will contain them, all carrier construction, metal parts and auxiliary metal mounting materials shall be grounded. Grounding in accordance with the standards shall be made on both DC side and AC side by the contractor.

7.14. The placement of the components (equipments) in the board shall be designed so that the board shall not be damaged during the transportation.

8. GENERAL GUIDELINES

8.1. All materials and equipment shall be manufactured and installed in accordance with the production techniques in the electrical manufacturing
and installation industry and shall comply with Turkish Standards and international norms and standards.

8.2. If the devices in the list are not identical or similar in terms of quality or characteristics, the CONTRACTOR shall substitute with the higher quality ones upon the approval of the administration and no price difference shall be paid for this difference.

8.3. The system components to be installed shall have a product warranty of at least 2 (two) years on part basis.

8.4. All devices to be used in the system shall be brand new and unused, with information such as signs, letters, numbers etc. indicating the brand, model, and date of manufacture.

8.5. Malfunctions in portable solar energy systems shall be fixed by the contractor as soon as possible in accordance with the beneficiary’s residence conditions.

8.6. The contractor company has to deliver the works to the Mersin Provincial Agriculture and Forestry Directorate to which the beneficiary is affiliated within 60 days after signing the contract. The default penalty specified in the contract shall be applied for each day of delay.

8.7. The assembly, installation, operation, fault detection and maintenance manual of all equipment shall be in Turkish and English and shall be delivered on the date of signing.

8.8. Damages detected during the
delivery of Portable Solar Energy panels shall be repaired by the contractor. There shall be no foreign substances (oil, dirt, metallic residue, etc.) on all parts before assembly.

8.9. The equipment must be fully compatible with solar energy and certified by national or international testing organizations.

8.10. The accuracy of the power of the solar panels to be procured within the scope of the tender must be submitted and delivered to the Provincial Directorate of Agriculture and Forestry, where the FLAŞ Test (I-V CURSE Test) as well as the ELECTROMUNANCE (EL) Test for cellular cracks and durability in solar panels).

9. WARRANTY CONDITIONS

9.1. All equipment and tools used in the system (including workmanship quality) shall be flawless, new and of first quality. When the materials used (including any part) fail due to design, workmanship or material quality within the warranty periods, the contractor shall be obliged to supply and install the same material. The warranty periods of the components to be used in the system, starting from the temporary acceptance date of the PV System, shall be as follows:

9.2. Photovoltaic solar panels; 10 years physical resistance (mechanical, electrical-electronic etc.) warranty

CURSE Testi ayrıca solar panellerde hücresel çatlık ve sağlamlık için ELEKTROLÜMÜNANS (EL) Testinin belgelenmesinin panellerin tesliminin yapılacağı İl Tarım ve Orman Müdürlüğüne teslim edilmesi gerekmektedir.

9. GARANTİ KOŞULLARI

9.1. Sisteme kullanılan bütün ekipman ve araçlar (işçilik kalitesi dahil) hatasız, yeni ve birinci kalitede olacaktır. Kullanılan malzemeler (herhangi bir parçası dahil) garanti periyotları içerisinde tasarım, işçilik veya malzeme kalitesinden dolayı arızalandıklarında, yüklenici aynı malzemeyi temin edip kurmakla yükümlü olacaktır. Sisteme kullanılacak komponentlerin, FV Sistem geçici kabul tarihinden itibaren, garanti periyotları aşağıdaki şekilde olacaktır:

9.2. Fotovoltaik güneş panelleri; 10 yıl fiziksel dayanim (mekanik, elektrik-elektronik vb.) garanti belgesi

9.3. Güneş paneli alt konstrüksiyonu; 2 yıl.

9.4. İnverterler; 2 yıl.

9.5. Diğer kısımlar/parçalar; 2 yılı

9.6. Garanti süreleri kapsamında meydana gelen mücbir sebepler ve kullanıcı hataları dışındaki kusur ve arızalar, arızalanan donanım, donanıma ait parça veya kismi yüklenici tarafından ücretsiz olarak değiştirilmesi/onarılması
9.3. Solar panel sub-construction; 2 years.
9.4. Inverters; 2 years.
9.5. Other parts / sections; 2 years.
9.6. Defects and malfunctions, other than due to force majeure and user errors, that occur within the scope of the warranty period shall be remedied by reparation/replacement of the broken hardware, parts, or sections by the contractor free of charge. All kinds of insurance, transportation, cargo and other expenses in the repair, maintenance, replacement of the devices shall be borne by the contractor.

9.7. Failures with the same character occurring in 10% of an identical part or element in the systems during the warranty period are considered characteristic failures. Such malfunctions and all their costs shall be under the responsibility of the contractor, and the malfunctions and costs that occur shall be remedied by the contractor as soon as possible considering the area where the portable Solar energy system is installed and the transportation conditions.

10. OTHER ISSUES
10.1. All materials and system design to be used in the project shall comply with the provisions of the Electricity Facilities Project Regulation and the Electricity yoluyla giderilecektir. Cihazların tamir, bakım, değiştirilmesi işlemlerinde her türlü sigorta, nakliye, kargo ve diğer masrafları yükleniciye ait olacaktır.

9.7. Garanti müddetinde içinde sistemlerde özdeş bir parça veya elemanın %10 adedinde aynı karakterde meydana gelen arızalar karakteristik ariza kabul edilir. Bu arızalar ve bütün masrafları yükleniciye ait olup, taşınabilir güneş enerji sisteminin kurulu olduğu alan ve ulaşım şartları dikkate alınarak meydana gelen arızalar ve masraflar en kısa zamanda yüklenici tarafından giderilecektir.

10. DIĞER HUSUSLAR
10.1. Projede kullanılacak tüm malzemeler ve sistem tasarıımı; Elektrik Tesisleri Proje Yönetmeliği ile Elektrik Üretim ve Elektrik Depolama Tesisleri Kabul Yönetmeliği hükümlerine ve ilgili diğer mevzuata uygun olacaktır.


10.3. Teknik şartname ve eklerinde deildilmiş, ancak işin tekniği ve sistemin fonksiyonel çalışması ve sorunsuz bir işletmenin tesi açısından sistemde bulunması gereken her türlü asli ve yardımcı tüm ekipmanlar ile yapılması zorunlu olan tüm işler İdarenin lehine olan hususlar olarak kabul edilip ihale bedeli içinde
10.2. The place of delivery of the solar systems is the places to be shown by the administration, depending on the numbers on the list. Shipping until the place of delivery shall be under the responsibility of the contractor.

10.3. All kinds of essential and auxiliary equipments and mandatory works that are not mentioned in the technical specification and its annexes, but which are required by the technique of the work and for the functional operation of the system and for the establishment of a problem-free operation, shall be considered as matters in favour of the Administration and shall be carried out within the tender price. No fee shall be requested from the Administration regarding these.

10.4. Except for the works and groups specified in the technical specification, the procurement, assembly, overhead and profits of all kinds of auxiliary materials, which are not mentioned in the technical specifications and contract annexes, but which are required to be made within the scope of the work, are included in the price offered, and the said works shall be under the liability of the company.

10.5. Delivery of the
package system to nomad families in the district of Mersin Provincial Directorate of Agriculture and Forestry indicated by the administration, making the system functional together with the construction, training the relevant user and all other system requirements as well as all works and transactions shall be under the liability of the contractor and they shall be carried out without any additional cost.

10.6. The company shall be responsible for any damage and loss that may occur during the assembly of the work in Mersin Provincial Directorate of Agriculture and Forestry; the damage to be determined shall be compensated by the company.

10.7. The contractor must have TSE Service Place Qualification Certificate.

10.8. Bidders who submit bids must submit documents related to their company such as Capacity Report, Manufacturing Certificate, Industry Registration Certificate, Domestic Goods Certificate related to the system equipment installation together with the offer.

10.9. The contractor will ensure compliance with occupational safety laws during the delivery process.

10.10. While using the device, life safety responsibility belongs to the user.
## Item to be supplied description// Tedarik edilecek ürün tanımı

<table>
<thead>
<tr>
<th>Item to be supplied description</th>
<th>Set Content // Set İçeriği</th>
<th>Quantity // Miktar</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLAR PANEL (Min. 170 Wp)</td>
<td>3 X 170 Wp</td>
<td></td>
</tr>
<tr>
<td>Polycrystalline 510 Wp</td>
<td></td>
<td>197 Sets // 197 Set</td>
</tr>
<tr>
<td>Full sine 12 VDC-220VAC Inverter with min. Power of 1000 watts Smart type with built-in solar charge controller</td>
<td>1 unit</td>
<td></td>
</tr>
<tr>
<td>Deep Discharge Gel Battery 100 Ah</td>
<td>2 X 100 Ah</td>
<td></td>
</tr>
<tr>
<td>METAL PANEL ELECTRIC CABLING</td>
<td>1 unit</td>
<td></td>
</tr>
<tr>
<td>ALUMINIUM TABLE SYSTEM PV</td>
<td>1 unit</td>
<td></td>
</tr>
</tbody>
</table>

### Technical Specifications

**Offered technical specifications by the Bidder shall be inserted in English.**

**Firma tarafından teklif edilen teknik özellikler İngilizce olarak verilmelidir.**

#### 1. SOLAR PANEL (FV MODULE)

- **1.1.** Solar panel shall have an instantaneous power output tolerance within the range of 0/+5p W. All PV panels must be with positive power tolerance only. It must be higher than the nominal value of the flash test power output report in the manufacturing factory. Negative power tolerance shall not be accepted.

- **1.2.** The PV panel type to be used shall have a polycrystalline structure. The power of the PV Solar Panel (Solar Module) must be 170 Wp. PV panels must be of identical / same brand PV module manufacturers.

- **1.3.** The connector must be (MC4 or MC3) and other connectors must be solar equipments specially produced for use in...
SPPs.

1.4. Solar Panel (Solar Module) efficiency Standard Test Conditions (Standard Test Conditions: shall be at least 18% under 1000W/m² radiation, 25 ºC module temperature and AM=1.5 spectrum), and PV panels with an efficiency of less than 18% shall not be accepted.

1.5. Against power drops caused by shadowing, at least 3 of the Solar Modules shall have bypass protections.

1.6. The power of each PV Solar Panel (Solar Module) shall be at least 170 Wp (or more) and all the panels used shall be of the same type. All the panels to be delivered must consist of identical panels.

1.7. Front face shall be made of tempered glass of at least 3.2 mm, with high sun light transmission. It shall be resistant to external stresses. (For example, the glass shall not break easily in case of throwing rocks or against impacts such as ice and hail.) It must be coated with ARC, i.e. anti-reflective.

1.8. Back side of Solar Modules shall allow the modules to be installed in the relevant field and shall be resistant to harsh climatic conditions (wind, snow, rain, etc.). The bottom (back) material / film shall be of quality material. (IEC 61215, IEC 61730)

1.9. Solar modules and fasteners shall have wind resistance with a capacity to withstand 130 km / hour wind.

1.10. PV Modules shall be able to withstand a wind load

(Standart Test Koşulları: 1000W/m² ışınım, 25 ºC modül sıcaklığı ve AM=1.5 spektrum) altında en az %18 olacaktır, verimliliği %18 altında olan FV paneller kabul edilmeyecerktir.

1.5. Gölgelenmenin neden olduğu güç düşüşlerine karşı, Solar Modüllerden az 3 adet bypass koruma yapılacaktır.


1.7. Önüz; güneş ışığını geçirme özelliği yüksek, en az 3,2 mm temperlenmiş cam olacaktır. Harici olarak uygulanacak zorlamalara karşı dayanıklı olacaktır. (Örneğin taş atılması durumunda veya buz, dolu gibi parça darbelerine karşı cam kolaylıkla kırılmayacak yapıda olacaktır.)ARC kaplı yani anti reflektif özelliği olmalıdır.

1.8. Solar modüllerin arka yüzü; Modüllerin ilgili sahaya montajına olanak sağlayacak ve sert iklim şartlarına (Rüzgar Kar Yağmur vb.) karşı dayanıklı olacaktır. Alt (arka) malzeme/film, kaliteli malzemeden olacaktır. (IEC 61215, IEC 61730)

1.9. Solar Modüller ve bağlantı elemanları 130 km/saat hızındaki rüzgara dayanabilecek kapasitede rüzgar direncine sahip olacaktır.

1.10. FV Modüller min. 2400 Pa rüzgar yüküne ve min
of min. 2400 Pa and a snow load of min. 5400 Pa. They shall be in compliance with (IEC 61215, IEC 61730) standards and the related standards shall be presented with the offer.

1.11. The junction box of the Solar Panel (Solar Module) must have at least IP 65 protection class.

1.12. The (+) and (-) poles of the Solar Panel (Solar Module) direct current output cables and convectors shall be easily distinguishable.

1.13. The direct current output cables of the Solar Panel (Solar Module) shall be 2 cables with a length of at least 10 meters for each pole, in compliance with TS EN50525-2-11 standards, with a minimum cross-section of 4 mm². (2X4 mm² H05VV-F)

1.14. Solar Panel (Solar Module) must comply with CE requirements and shall have CE Certificate.

1.15. Frames mounted with bolts on solar panels shall not be accepted. Panel frames must be pressed and at the same time punched.

1.16. The frame of the Solar Panel (Solar Module) shall be made of corrosion-resistant material and stainless steel (anodized Aluminium is preferred).

1.17. Solar Panel (PV) Modules: shall operate smoothly at -40 °C to +85 °C operating temperature. This must be readable from the provided technical document. It shall work smoothly in 0-90% relative humidity.

5400 Pa kar yüküne dayanabilecek yapıda olacaktır. (IEC 61215, IEC 61730) standartlarına göre olup ilgili standartlar teklif ile birlikte sunulacaktır.

1.11. Güneş Paneli (Solar Modül) bağlantı kutusu en az (Junction Box) IP 65 koruma sınıftında olmalıdır.


1.13. Güneş Paneli (Solar Modül) doğru akım çıkış kabloları her bir kutup için en az 10 metre uzunluğa, TS EN50525-2-11 standartlarına uygun, minimum 4 mm² kesitinde 2 adet kablo olacaktır. (2X4 mm² H05VV-F)


1.15. Güneş panellerinde civatalı olarak montajlanmış çerçeveler kabul edilmeyecektir. Panel çerçeveleri preslenmiş, aynı zamanda punch işlemi de görmüş olmalıdır.


1.18. The warranty documents given by the manufacturer for the Modules offered. When necessary, values under normal operating conditions may also be requested.

1.19. The production date of the PV panels to be used in the solar energy system shall be 2021.

1.20. The lifespan of the PV Array must have a minimum of 10 years of mechanical and 25 years of performance warranty. Linear energy guarantee shall be such that it shall provide at least 90% of the panel power at the end of 10 (ten) years and at least 80% at the end of 25 (twenty five) years. Linear guarantee for panels must be presented in the offer.

1.21. On each module, there shall be a product label attached to the panels by the manufacturer, containing the following information as a minimum:

1.21.1. Name of the Manufacturing company,
1.21.2. Module Type,
1.21.3. Serial No,
1.21.4. Length, weight data
1.21.5. Quality standard, CE standard
1.21.6. Rated Power (Pmmp), Voc, Isc
1.21.7. Country of Production

1.22. Cells must have dimensions of 156x156 mm poly.

1.23. The number of cells must be 36.

1.24. The panels must consist of identical panels.

1.25. The frame must be 6063-T5 kalitesinde.
corrosion-resistant, with an anodized thickness of at least 15 microns and a wall thickness of 1.5 mm. It shall be of stainless steel. It shall have 6063-T5 quality.

1.26. When requested, the contractor firm must provide the laboratory test results of the panels.

1.27. In addition, officials shall be able to participate in panel tests when requested. All expenses in this matter shall be under the responsibility of the contractor.

1.28. The name and surname of the farmer, project number and delivery date shall be written on the Panel Frames by the scraping method.

1.29. During the construction of the panels, the logos of the Ministry of Agriculture and Forestry, IFAD, KDAK Project shall be prepared to be clearly visible after applying an in-glass lamination process inside the panels.

1.30. The serial number of each panel shall be readable in the window and the test report shall be arranged according to the serial number.

1.31. Panels shall have DOMESTIC GOODS CERTIFICATE and the localization rate shall be at least 75%.

2. INVERTER (Inverter, FULL SINUS)

2.1. It shall have a nominal power of 1000W (görüntü

2.2. Evirici, aşırı yük, yüksek sıcaklık, düşük akü voltajı korumalarına sahip olacaktır.

2.3. Evirici çalışma sıcaklığı aralığı 0,+40 °C olacak ve test raporu seri numarasına göre düzenlenenecektir.
of 1000W, input voltage shall be: 12 Volt DC voltage, output voltage shall be 220/230 Volt AC 50 Hertz.

2.2. The inverter shall have overload, high temperature, low battery voltage protections.

2.3. The inverter shall have an operating temperature range of 0 to +40 °C and shall be able to operate at a maximum relative humidity of 90%.

2.4. The inverter shall have a minimum efficiency of 90%.

2.5. Inverters shall be able to operate with gel battery.

2.6. In case of overload, overvoltage and short circuit, it shall protect the system and restart the inverter.

2.7. It must be able to give an audible warning in case of overload and heating.

2.8. The inverter’s voltage input must be in the range of at least Vdc - maximum 16 VDC.

2.9. It must have Low voltage alarm (95 V+,-) to protect the battery. It must have protection fuses.

2.10. TS inverter must comply with CE requirements and shall have CE Certificate.

2.11. The inverter must be guaranteed for at least 2 years.

2.12. It shall have EN60950, EN55022 Standards.

2.13. It shall have a built-in 50 amp PWM solar charge control unit.

2.4. Evirici, verim minimum %90 olacaktır.

2.5. Eviriciler, jel aküyle çalışabilecek yapıda olacaktır.

2.6. Aşırı yük, gerilim ve kısa devre durumunda sistemi korumaya alarak eviriciyi yeniden başlayacaktır.

2.7. Aşırı yük ve ısınma durumunda sesli ikaz verebilmelidir.


2.9. Aküyı korumak için Düşük voltaj alarmına (95 V+,-) haiz olmalıdır. Koruma sigortalarına sahip olmalıdır.

2.10. TS evirici CE şartlarına uyunmalı ve CE Belgesine sahip olacaktır.

2.11. Evirici en az 2 yıl garantili olmalıdır.

2.12. EN60950, EN55022 Standartlarına sahip olacaktır.

2.13. Dahili 50 amper PWM solar şarj kontrol ünitesine haiz olacaktır.

3. JEL AKÜ

3.1. Aküler uzun ömürlü solar enerji sistemine uygun bakım gerektirmeyen ve sistem kapalı bir kabin içerisinde çalışacağındaki akülerler jel yapida olacaktır.


3.3. İstikrarlı performansa sahip olacaktır.

3.4. Aküler döngü sayısı %50 DOD
system, maintenance-free, and since the system will operate in a closed cabinet, the accumulators shall be in gel form.

3.2. It shall have a long cycle life. It shall have a reliable constant output current. Batteries to be used shall be resistant to deep discharge and shall have an enclosed structure.

3.3. It shall have stable performance.

3.4. The number of battery cycles must be > 1000 at the 50% DOD level. It shall be 100% maintenance-free. A 2-year warranty must be given by the manufacturer.

3.5. Batteries shall work smoothly at 0 - 90% relative humidity at an ambient temperature range of 0 to + 50°C, when it is installed at an elevation of 0-1500 m.

3.6. The operating voltage shall be at least 12 VDC.

3.7. The battery shall be at least 100 Ah.

3.8. There shall not be more than 120 days of difference between the date of manufacture of the batteries and the date of delivery to the administration. The name of the manufacturer company, date of manufacture, nominal voltage, "+" and "-" signs and voltage shall be indelibly written on the accumulator.

4. SOLAR CABLE
4.1. The cabling between the PV panels, the supply of the cables to be used and their proper installation shall be

Seviyesinde >1000 olmalıdır. %100 bakım gerektirmeyecektir. Üretici tarafından 2 yıl garanti verilmelidir.

3.5. Aküler; 0 ve +50 °C ortam sıcaklığında, 0-1500 m Yükseklikte kurulu bulunduğu hallerde, %60-90 Bağlı nem oranında sorunsuz çalışacaktır.

3.6. Çalışma voltajı en a 12 VDC olacaktır.

3.7. Akü en az 100 Ah olacaktır.

3.8. Akülerin imalat tarihi ile idareye teslim tarihi arasında 120 günden fazla olmayacaktır. Akümlatör üzerine imalatçı firma adı, imalat tarihi Nominal gerilimi "+" ve ",-" işaretleri, gerilimi silinmeyecek şekilde olacaktır.

4. SOLAR KABLO
4.1. FV panelleri arasındaki kablolama, kullanılacak kabloların temini ve uygun şekilde montaji yüklenici firma tarafından yapılacaktır.

4.2. Panel üzerindeki FV enerji kabloları yüksek sıcaklık ve ısıya dayanıklı, UV dirençli, çift izoleli, halojensiz, kurşunuz (terciheden)nominal kablo kesiti TÜV tarafından onaylanmış TS EN 60228 ve IEC 60287 standardına uygun olarak üretilmiştir.

4.3. Solar kablolar 90 °C (doksan derece) çalışma sıcaklığında sorunsuz kullanılacaktır.

4.4. FV- solar kablo ve solar kablo-şarj regülatörü -inverter bağlantılarında MC4 tipi erkek ve dişi tip konektörler kullanılabaktır. Konnektörler,
undertaken by the contractor firm.

4.2. The PV energy cables on the panel shall be resistant to high temperature and heat, UV-resistant, double insulated, halogen-free, lead-free (preferably), where the nominal cable cross section shall be TÜV approved, and shall be produced in accordance with TS EN 60228 and IEC 60287 standards.

4.3. Solar cables shall be used at an operating temperature of 90 °C (ninety degrees) without any problems.

4.4. In the PV - solar cable and solar cable-charge regulator-inverter connections, MC4 type male and female type connectors shall be used. Connectors, special fasteners and sockets shall be suitable for an operating temperature range of -40 °C (minus forty degrees) to + 90°C (ninety degrees), suitable for high current and approved type.

5. **PV SUB-CONSTRUCTION**

5.1. Solar energy panels shall be made according to the appropriate design, for which the approval of the administration shall be obtained.

5.2. The metal construction to be used in the systems shall be made of a profile with a wall thickness of at least 3mm.

5.3. The panel layout angles of the solar energy system to be installed shall be designed to ensure maximum energy generation throughout the year.

5.4. Güneş panelleri, uygun alüminyum/galvaniz bağlantı aparatları (clamp) ile konstrüksiyon malzemesine monte edilecektir.

5.5. Montaj sırasında zarar gören galvaniz ve boyalar uygun şekilde onarılacaktır.

5.6. Somun civatalar paslanmaz özellikleri olacaktır.

6. **PANO -ELEKTRİK TESİSATI**

6.1. Panolar taşımaya uygun, kılımlı, kapaklı olmalıdır.

6.2. Aşırı ısınmayı önlemek için hava giriş kanalları olmalıdır.

6.3. Pano yüzeyinde olacak şekilde topraklı 220 AC çubuk çocuk korumalı, gerekli ikaz etiketli ve sigorta korumalı en az 1Ad. Priz, 2 Ad 12 volt, 1 adet
5.4. Solar panels shall be mounted to the construction material with suitable aluminium / galvanized connection apparatus (clamps).

5.5. The galvanizes and paints which are damaged during assembly shall be properly repaired.

5.6. Nut bolts shall be stainless.

6. BOARD - ELECTRIC INSTALLATION

6.1. Boards must be suitable for carrying, with handles and covers.

6.2. There must be air intake channels to prevent overheating.

6.3. On the surface of the board, there must be 220 AC output, at least 0.1 piece of Socket, 2 pcs of 12 volt and 1 pc of 12 volt cigarette lighter outlet with child protection, necessary warning label and fuse protection.

6.4. Inside the board, 1 fuse shall be added, according to the inverter’s output power.

6.5. The boards shall bear metal tags containing the date of manufacture, model and serial numbers, and these tags must be visible on the board. All warning, death danger signs, operating instructions and warning instructions plates that must be present on the board and other main components shall be properly attached.

6.6. It shall allow the charge regulator screen to be seen on the cover.

6.7. It shall be designed so that all 12 volt çakmak çıkışı olmalıdır.

6.4. Pano içerisinde evirici çıkış gücüne göre 1 adet sigorta ilave edilecektir.

6.5. Panoların üzerinde ; üretim tarihi model ve seri numarası içeren metal etiket olmalıdır ve bu etiketler panonun görülebilecek yerinde olmalıdır. Pano ve diğer ana komponentler üzerinde bulunması gereken tüm ikaz, ölüm tehlike levhası, kullanma talimatı ve uyarı talimatı plakaları uygun şekilde takılacaktır.


6.7. Bütün anahtar ve ekrnlar dış kapak üzerinde olacak şekilde tasarılanacaktır.


6.9. Pano en az 0,8 mm DKP sac ile imal edilmeli


6.11. Panel ile pano arası enerji aktarımını sağlamak için idarenin onay verdiği konstrüksiyona göre HOSW-F tipi kablo konulmalıdır.

switches and screens are on the outer cover.

6.8. All components (Battery-Inverter-Charge Regulator) shall be fixed so that the components are not damaged during transportation.

6.9. The board must be manufactured of at least 0.8 mm DKP sheet metal.

6.10. Boards shall be painted with the colours of the exterior space as requested by the administration.

6.11. In order to transfer energy between the board and panel, HOSW-F type cable must be placed according to the construction approved by the administration.

6.12. For visibility, the phrase "Uplands Rural Development Project Adana-2021" with corporate logos on the boards must be written by paint, plate, or sticker. The plates used must be prepared in an easily readable size and mounted in such a way that they cannot fall. If paint or stickers are to be used, they must be prepared in easily readable sizes, and they must be long-lasting by using materials that shall not fade.

6.13. All electrical and electronic devices belonging to the solar energy system to be installed and the cabinets which will contain them, all carrier construction, metal parts and auxiliary metal mounting materials shall be grounded. Grounding in accordance with the standards shall be made on both DC side and AC side by edilmelidir. Boya veya çakırtma kullanılarak kolay okunabilir boyutlarda hazırlanmalı silinmeyecok solmayacak malzemeler kullanılırak uzun ömürlü olması sağlanmalıdır.


6.16. Pano içerisinde komponentlerin yerleşimi panonun taşınması sırasında zarar görmeyecek şekilde tasarlanacaktır.

7. **GENEL ESASLAR**

7.1. Tüm malzeme ve techizat, elektrik imalat ve tesisat endüstrisindeki üretim tekniklerine uygun olarak imal ve tesis edilecek ve Türk Standartlarına uygun ve Uluslararası norm ve
6.14. Board manufacturing and on-board device placement shall start after the approval of the administration.

6.15. On-board cabling (solar charge regulator-batteries-inverter-fuse-grounding) shall be undertaken by the contractor with the appropriate cross-sections according to the existing system and they shall be manufactured after the approval of the administration.

6.16. The placement of the components in the board shall be designed so that the board shall not be damaged during the transportation.

7. GENERAL GUIDELINES

7.1. All materials and equipment shall be manufactured and installed in accordance with the production techniques in the electrical manufacturing and installation industry and shall comply with Turkish Standards and international norms and standards.

7.2. In the event that the devices in the list are not identical or similar in terms of quality or characteristics, the CONTRACTOR shall substitute with the higher quality ones upon the approval of the administration and no price difference shall be paid for this difference.

7.3. The system components to be installed shall have a product warranty of at least 2 (two) standartlarına uygun olacaktır.

7.2. Listedeki cihazların kalite ve hususiyet itibarında aynı veya benzeri bulunmadığı takdirde, YÜKLENİCİ daha yüksek kalitede olanları idarenin onayı ile koyacak ve bu fark için hiçbir fiyat farkı ödenmeyecektir.

7.3. Kurulacak sistem elemanları parça bazında en az 2 (iki) yıl ürün garantisine sahip olacaktır.

7.4. Kullanılacak paneller, kablolalar, soketler ve inverterler kendi içinde aynı marka, tip ve model olacaktır.

7.5. Sistem içerisinde kullanılan tüm cihazlar, yeni (brand new) ve kullanılmamış (unused) olacak, üzerindeki işareti, yazı, rakam vs. türünden bilgiler bulunacaktır.

7.6. Güneş enerji sistemlerinin elektrişel bağlantı ve montajı yükleniciye ait olup sistemde garanti kapsamında oluşacak arızalar yüklenici tarafından en geç 10 (on) iş günü içerisinde giderilecektir.

7.7. Yüklenici firma sözleşmeyi imzaladıktan sonra 60 Takvim Güneş içerisinde yatırıcının göstereceği yer ve yerlere teslim edilecektir.

years on part basis.
7.4. The panels, cables, sockets and inverters to be used shall be of the same brand, type and model.
7.5. All devices to be used in the system shall be brand new and unused, with information such as signs, letters, numbers etc. indicating the brand, model, and date of manufacture.
7.6. The electrical connection and assembly of solar energy systems shall be under the liability of the contractor and any failures that may occur in the system shall be remedied by the contractor within the scope of warranty within 10 (ten) working days at the latest.
7.7. It shall be delivered to the place(s) to be indicated by the investor within 60 calendar days after the contractor company signs the contract.
7.8. The Contractor shall produce 1 prototype Solar Energy set according to the aspects specified in the specification and submit it to the UNDP for approval before serial production. Mass production shall begin following the approval of UNDP.

8. **WARRANTY CONDITIONS**

8.1. All equipment and tools used in the system (including workmanship quality) shall be flawless, new and of first quality. When the materials used (including any part) fail due to design, workmanship or material quality within the

8. **GARANTİ KOŞULLARI**

8.1. Sistemde kullanılan bütün ekipman ve araçlar (işçilik kalitesi dahil) hatasız, yeni ve birinci kalitede olacaktır. Kullanılan malzemeler (herhangi bir parçasi dahil) garantı periyotları içerisinde tasarım, işçilik veya malzeme kalitesinden dolayı arızalandıklarında, yüklenici aynı malzemeyi temin edip kurmakla yükümlü olacaktır. Sistemde kullanılacak komponentlerin, FV Sistem geçici kabul tarihinden itibaren, garantı periyotları aşağıdaki şekilde olacaktır:

8.2. Fotovoltaik güneş panelleri; 10 yıl fiziksel dayanım (mekanik, elektrik-elektronik vb.) garantı belgesi

8.3. Güneş paneli alt konstrüksiyonu; 2 yıl.

8.4. İnverterler; 2 yıl

8.5. Diğer kısımlar/parçalar; 2 yıl

8.6. Garanti süresi kapsamında meydana gelen mücbir sebepler ve kullanıcı hataları dışındaki kusur ve arızalar, arızalanan donanım, donanıma ait parça veya kismın yüklenici tarafından ücretsiz olarak değiştirilmesi/onarılması yoluya giderilecektir. Cihazların tamir, bakım, değiştirilmesi işlemlerinde her türlü sigorta, nakliye, kargo ve diğer masrafları yükleniciye ait olacaktır.

8.7. Garanti müddeti içinde sistemlerde özdeş bir parça veya elemanın % 10 adedinde
warranty periods, the contractor shall be obliged to supply and install the same material. The warranty periods of the components to be used in the system, starting from the temporary acceptance date of the PV System, shall be as follows:

8.2. Photovoltaic solar panels; 10 years physical resistance (mechanical, electrical-electronic etc.) warranty certificate

8.3. Solar panel sub-construction; 2 years.

8.4. Invertors; 2 years

8.5. Other sections / parts; 2 years

8.6. Defects and malfunctions, other than due to force majeure and user errors, that occur within the scope of the warranty period shall be remedied by reparation/replacement of the broken hardware, parts, or sections by the contractor free of charge. All kinds of insurance, transportation, cargo and other expenses in the repair, maintenance, replacement of the devices shall be borne by the contractor.

8.7. Failures with the same character occurring in 10% of an identical part or element in the systems during the warranty period are considered characteristic failures. The contractor shall start to remedy such malfunctions within the system on site, completely at the expense of the contractor, by making any construction and part replacements as necessary, within 20 working days. The warranty periods of the components to be used in the system, starting from the temporary acceptance date of the PV System, shall be as follows:

8.2. Photovoltaic solar panels; 10 years physical resistance (mechanical, electrical-electronic etc.) warranty certificate

8.3. Solar panel sub-construction; 2 years.

8.4. Invertors; 2 years

8.5. Other sections / parts; 2 years

8.6. Defects and malfunctions, other than due to force majeure and user errors, that occur within the scope of the warranty period shall be remedied by reparation/replacement of the broken hardware, parts, or sections by the contractor free of charge. All kinds of insurance, transportation, cargo and other expenses in the repair, maintenance, replacement of the devices shall be borne by the contractor.

8.7. Failures with the same character occurring in 10% of an identical part or element in the systems during the warranty period are considered characteristic failures. The contractor shall start to remedy such malfunctions within the system on site, completely at the expense of the contractor, by making any construction and part replacements as necessary, within 20 working days.
days at the latest and such equipments shall continue to work without interruption. However, repairs of all systems cannot exceed 30 business days. If the repair exceeds this period, the default penalty specified in the contract shall be applied for each day.

9. OTHER ISSUES
9.1. User’s Manual must be in Turkish and must be given with each system unit.
9.2. All materials and system design to be used in the project shall be prepared in accordance with the principles of the Law Amending the Law on the Use of Renewable Energy Resources for the Purpose of Generating Electrical Energy, the Regulation on Unlicensed Electricity Generation in the Electricity Market, the Regulation on the Procedures and Principles related to the Mechanical and/or Electromechanical Parts Used in Facilities Generating Electrical Energy from Renewable Energy Sources, to their Domestic Production and to the Electricity Generation Facilities Based on Solar Energy. In case of any doubt, the aforementioned laws, procedures and principles must be taken into consideration.
9.3. Except for the works and groups specified in the technical specification, the procurement, assembly, dikkate alınmalıdır.

9.3. Teknik şartnamede belirtilen iş ve grupların dışında, teknik şartname ve sözleşme eklerinde bahsi geçmeyen ancak işin bünyesi içinde yapılması zorunlu olan, her türlü yardımcı malzemenin temini, montajı, nakliyesi genel gider ve karlı teklif edilen bedelin içinde olup söz konusu işler firmaya ait olacaktır.
9.4. Paket sistemin yatırımcının gösterdiği adrese teslim edilmesi sistemin konstrüksiyon ile birlikte çalışır hale getirilmesi, ilgili kullanıcıya eğitim verilmesi ve diğer sistem gereksinimleriyle bütün iş ve işlemler yüklenici sorumluluğunda olup ek bedel alınmaksızın gerçekleştirilir.
9.5. İşin montajı sırasında oluşabilecek her türlü zarar ve ziyandan firma sorumlu olacak olup; tespit edilecek hasar firmadan tazmin edilecektir.
9.8. Teklif veren istekliler kurulacak sitem teçhizatı ile ilgili firmalarına ait; Kapasite Raporunu, İmalat Belgesini, Sanayi Sicil Belgesini, Yerli mali belgesini teklifle birlikte
transportation, overhead and profits of all kinds of auxiliary materials, which are not mentioned in the technical specifications and contract annexes, but which are required to be made within the scope of the work, are included in the price offered, and the said works shall be under the liability of the company.

9.4. Delivery of the package system to the address indicated by the investor, making the system functional together with the construction, training the relevant user and all other system requirements as well as all works and transactions shall be under the liability of the contractor and they shall be carried out without any additional cost.

9.5. The company shall be responsible for any damage and loss that may occur during the assembly of the work; the damage to be determined shall be compensated by the company.

9.6. The contractor must have TSE Service Location Qualification.

9.7. Installation and Maintenance-Repair Services shall be under the responsibility of the contractor and any malfunctions that will occur in the system shall be fixed by the contractor within 3 working days at the latest. The systems shall be delivered by the contractor to the places indicated by the Authority and the necessary
training shall be given to the user.

9.8. Bidders have to submit the Capacity Report, Manufacturing Certificate, Industry Registration Certificate, domestic goods certificate of their firms for the system equipment to be installed along with their bids.

9.9. The contractor shall ensure compliance with occupational safety laws during the delivery process.

Product catalogue/brochure of the proposed brand/model showing detailed technical specifications of the goods should be submitted.

<table>
<thead>
<tr>
<th>Other Related services and requirements</th>
<th>Compliance with requirements</th>
<th>Details or comments on the related requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Based on the information provided in Section 5b)</td>
<td>Yes, we comply.</td>
<td>(Indicate discrepancies)</td>
</tr>
<tr>
<td>Delivery of Each Item within 60 days following the signature of the contract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All items shall have 2 years manufacturer warranty.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photovoltaic solar panels shall have 10 years physical resistance (mechanical, electrical-electronic) warranty</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FORM F: Price Schedule Form

Name of Bidder: [Insert Name of Bidder]  
Date: Select date

ITB reference: UNDP-TUR-ITB(UR)-2021/011

The Bidder is required to prepare the Price Schedule following the below format by inserting the proposed make and model of each product along with the unit price and total price of the Set.

The price shall not include value added tax (VAT) since UN and its subsidiary organs are exempt from all taxes except the special consumption tax.

Currency of the Bid: New Turkish Liras (TRY)

### Price Schedule for Lot 1 340Wp Portable Solar Power Set

<table>
<thead>
<tr>
<th>Description of Goods</th>
<th>Set Content // Set İçeriği</th>
<th>Quantity // Miktar</th>
<th>Unit Price per item // Ürûn Başna Birim Fiyat (TRY)</th>
<th>Total Price of items // Ürûnerîn Toplam Fiyâtı (TRY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOT 1 // LOT 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. 340 Wp (Single or 2x170 Wp) crystal based Solar Module</td>
<td>1 X 340Wp or // veyâ 2 X 170Wp</td>
<td>630 sets // 630 set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS 1200 W Modified Sine Inverter</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20A 12/24 V Charge Regulator (with MPPT feature and LCD screen)</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200Ah Gel Battery (2x100 Ah or 1x200 Ah)</td>
<td>1 X 200Ah or // veyâ 2 X 100Ah</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV substructure / Panel-Electric Cabling (including consumables such as battery cable, protection fuse, cable duct, battery terminals or lugs)</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All-inclusive Financial Bid shall include all related costs for fulfilment of the requirements stipulated in the ITB. Contractor shall not be entitled to receive any amount beyond All-inclusive Financial Proposal proposed above.*

Name of Bidder: ____________________________________________
Authorised signature: _________________________________________
Name of authorised signatory: __________________________________
Functional Title: ____________________________________________
**Currency of the Bid:** New Turkish Liras (TRY)

### Price Schedule for Lot 2 510Wp Portable Solar Power Set

<table>
<thead>
<tr>
<th>Description of Goods</th>
<th>Set Content // Set İçeriği</th>
<th>Quantity // Miktar</th>
<th>Unit Price per item // Ürün Başına Birim Fiyat (TRY)</th>
<th>Total Price of items // Ürünlerin Toplam Fiyatı (TRY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOT 2 // LOT 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOLAR PANEL (Min. 170 Wp) Polycrystalline 510Wp</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full sine 12 VDC-220VAC Inverter with min. Power of 1000 watts Smart type with built-in solar charge controller</td>
<td>3 X 170Wp</td>
<td></td>
<td></td>
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<tr>
<td>Deep Discharge Gel Battery 100 Ah</td>
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<td>1 unit</td>
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<td></td>
</tr>
<tr>
<td>METAL PANEL ELECTRIC CABLING</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALUMINIUM TABLE SYSTEM PV Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Final and All-Inclusive Price Quotation (TRY) for LOT 2 LOT 2 için Toplam kesin ve her şey dahil fiyat teklifi (TRY)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All-inclusive Financial Bid shall include all related costs for fulfilment of the requirements stipulated in the ITB. Contractor shall not be entitled to receive any amount beyond All-inclusive Financial Proposal proposed above.*

Name of Bidder: ________________________________
Authorised signature: ____________________________
Name of authorised signatory: ____________________
Functional Title: _______________________________
FORM G: Form of Bid Security

Bid Security must be issued using the official letterhead of the Issuing Bank.
Except for indicated fields, no changes may be made on this template.

To: UNDP
[Insert contact information as provided in Data Sheet]

WHEREAS [Name and address of Bidder] (hereinafter called “the Bidder”) has submitted a Bid to
UNDP dated [Click here to enter a date] to execute goods and/or services [Insert Title of Goods and/or
Services] (hereinafter called “the Bid”):

AND WHEREAS it has been stipulated by you that the Bidder shall furnish you with a Bank Guarantee
by a recognized bank for the sum specified therein as security if the Bidder:

a) Fails to sign the Contract after UNDP has awarded it;
b) Withdraws its Bid after the date of the opening of the Bids;
c) Fails to comply with UNDP’s variation of requirement, as per ITB instructions; or
   d) Fails to furnish Performance Security, insurances, or other documents that UNDP may require as a
      condition to rendering the contract effective.

AND WHEREAS we have agreed to give the Bidder such Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of
the Bidder, up to a total of [amount of guarantee] [in words and numbers], such sum being payable in the
types and proportions of currencies in which the Price Bid is payable, and we undertake to pay you, upon
your first written demand and without cavil or argument, any sum or sums within the limits of [amount of
guarantee as aforesaid] without your needing to prove or to show grounds or reasons for your demand for
the sum specified therein.

This guarantee shall be valid up to 30 days after the final date of validity of bids.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Signature: _____________________________________________________________
Name: ________________________________________________________________
Title: _________________________________________________________________
Date: _________________________________________________________________
Name of Bank __________________________________________________________
Address ________________________________________________________________

[Stamp with official stamp of the Bank]
[insert: address and email address]