

# **TENDER DOCUMENT**

**SUPPLY, INSTALLATION, TESTING & COMMISSIONING  
OF LIKELY 204.18 KWp SOLAR POWER SYSTEM AT SKS  
TOWER (ROOF OF LEVEL-12, LEVEL-9 & LEVEL-6)**

24 March 2025

**SKS TOWER OFFICE  
(Level 9, Lift-14, 15)  
SENA KALYAN SANGSTHA  
07 VIP ROAD, MOHAKHALI  
DHAKA-1206**

## Tender Document

### For

## SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF LIKELY 204.18 KWp SOLAR POWER SYSTEM AT SKS TOWER (ROOF OF LEVEL-12, LEVEL-9 & LEVEL-6)

**Invitation to Tender:** Sena Kalyan Sangstha Tower (SKS Tower) invites sealed tenders from eligible and qualified bidders for the supply, installation, Testing and commissioning of likely **204.18 KWp SOLAR POWER SYSTEM** as per the specifications detailed in this document.

<b>Tender Closing Date and Time</b>	:	15 APRIL 2025, 12:00 pm
<b>Tender Opening Date and Time</b>	:	15 APRIL 2025, 12:30pm
<b>Tender Document Format</b>	:	As per attached BOQ in company's pad

Sena Kalyan Sangstha Tower (SKST) reserves the right to accept or reject any or all tenders without assigning any reason whatsoever.

### 1. **Submission of Tender:**

- Bidders shall submit their sealed tenders in hard copy to the specified SKS address as per BOQ (**Annexure A**) marked "Tender for Solar Project at SKS Tower".
- The tender shall be submitted on or before 1200 hrs, April **15, 2025**.
- Late submissions will not be accepted.

### 2. **Scope of Work:** The scope of work includes but is not limited to:

- Supply, Installation, Testing & Commissioning of likely 204.18 KWp Solar Power System at SKS Tower (ROOF OF LEVEL-12, LEVEL-9 & LEVEL-6) using locally sourced and specified imported items as per the attached BOQ (**Annexure A**).
- Submission of **drawings, designs, specifications and original technical details with data Sheet** of all equipments of Solar Project (PV Module, Inverter etc).
- **DC and Ac Earthing** work must be completed by the supplier.
- **Installation, Testing, and Commissioning** at demarcated location of SKS Tower, Mohakhali, Dhaka-1206.

### 3. Documents Required:

- Company Profile and Registration certificates.

- Technical and financial proposals.
- Completed BOQ with unit rates and total cost including VAT & AIT.
- Warranty and Maintenance Commitments.
- Delivery and installation timeline.

**4. Eligibility Criteria:** Bidders must fulfill the following criteria:

- Bidders must have experience in solar PV projects of similar scale (minimum 200 kWp) and provide proof of at least 3 completed projects within the last 5 years.
- Must submit valid Trade License, VAT, and Tax Identification Number (TIN).

**5. Evaluation Criteria:** The bids will be evaluated based on the following:

- Technical compliance with BOQ specifications (40%)
- Financial competitiveness (40%).
- Delivery and installation timeline (10%).
- Warranty and after-sales support (5%).
- Previous Experience and Track record (5%)

**6. Technical Specifications:**

- Refer to the **attached Annexure A: Bill of Quantities (BOQ)** for detailed specifications of all items, including brands, models, warranties, and country of origin.
- All materials must comply with international standards (e.g., IEC, TUV).
- Installation must adhere to local electrical codes and safety regulation.
- Extended warranties (where applicable) must be clearly priced as a percentage of base cost.

**7. Layout of Solar Panel Installation Area:** The Design of likely 204.18 KWp Solar panel has been attached as per **Annexure B**. Supplier must be submitted proper design, drawing and signed before getting Work order.

**8. Terms & Conditions:**

- Supplier must complete a site visit before submission.
- Based on the Site visit, the Supplier must submit the proper design and drawing of the Project.
- The PV Module, Inverter and every component must be brand new.
- The quoted price must include all applicable taxes, duties, and transportation costs.
- The Project must be completed by 90 days after getting the work order.

- Payment terms will be as per SKS policy (20% Advance upon work order, 60% upon delivery of Materials to site, 15% after installation, Testing & commissioning & 5% after 2 year).
- 3% of the Work Order value must be provided as a Performance Guarantee valid for 90 days.
- The supplier must ensure after-sales support and provide a details warranty period of PV Module, Inverter and Others Item.
- Warranty: AS Specified in BOQ for each item and Bidder also needs to provide maintenance Support for at least 2 years post Commissioning.
- Must be given 2 years of free Servicing for Solar Panel.
- A Deed of Agreement must be completed with SKS Tower.
- SKS reserves the right to accept or reject any tender without assigning any reason.
- The supplier must complete delivery, installation, and commissioning within the agreed timeline.
- Any delay in delivery or installation will result in penalties as per SKS policy.
- The supplier shall be responsible for all damage or defects during transit and installation Testing.
- The supplier must provide operational and maintenance manuals along with necessary Training.
- The supplied PV Module and Inverter & Structure must comply with all national and international safety and environmental regulations.
- All disputes shall be settled as per the governing laws of Bangladesh.

## 9. Contact Information

For further inquiries, please contact:

SKS Tower Office, Level-9 (Lift 14,15), SKS Tower

7 VIP Road, Mohakhali, Dhaka-1206.

Email: [skstower@gmail.com](mailto:skstower@gmail.com)

Mobile: 01737742796

Tel: 02 55058424



**Head of Project-SKS Tower**

Tel: 02 55058417

**Bill of Quantities (BOQ)**

Bidders are requested to adhere to the requirements outlined in this document to ensure a fair and transparent procurement process.

<b>BOQ for Solar Project at SKS Tower (Roof of Level-12, Level-9 &amp; Level-6)</b>						
<b>SL No.</b>	<b>Item Description</b>	<b>Specification/Model</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price (BDT)</b>	<b>Total Price (BDT)</b>
1	<b>PV Module</b> <b>Brand Name:</b> JA/Xinco/Trina/Longi/AE/Equivalent Capacity of Each Module: 615Wp <b>Total Module Nos:</b> 332 Nos. <b>Manufacturer's Product Warranty:</b> 12 Years <b>Manufacturer's Performance Warranty:</b> 30 Years <b>COO:</b> China	Tire-1 listed, N-Type Topcon Technology, Bi-Facial Module Efficiency - 22.8% (For considering STC*) and above	Wp	204180	[Insert Price]	[Insert Total]
2	<b>Inverter</b> <b>Brand Name:</b> Growatt/Kacco/Huawei/Equivalent Capacity: 50 kW Protection Degree: IP66 Efficiency: 98%/above 98% <b>Manufacturer's Warranty:</b> 5 Years <b>Extended Warranty:</b> X% cost will be added with the price to get extra 5 Years. <b>COO:</b> China	Type: Grid-Tied	Nos	2	[Insert Price]	[Insert Total]
3	<b>Inverter Extended Warranty:</b> 5 Years <b>COO:</b> China	Type: Grid-Tied	Nos	2	[Insert Price]	[Insert Total]
4	<b>Inverter</b> <b>Brand Name:</b> Growatt/Kacco/Huawei/Equivalent Capacity: 40 kW Protection Degree: IP66 Efficiency: 98.4%/above 98.4% <b>Manufacturer's Warranty:</b> 5 Years <b>Extended Warranty:</b> X% cost will be added with the price to get extra 5 Years. <b>COO:</b> China	Type: Grid-Tied	Nos	2	[Insert Price]	[Insert Total]
5	<b>Inverter Extended Warranty:</b> 5 Years <b>COO:</b> China	Type: Grid-Tied	Nos	2	[Insert Price]	[Insert Total]
6	<b>Remote Monitoring (4G Dongle)</b> <b>Brand Name:</b> Huawei/Equivalent <b>Manufacturer's Warranty:</b> 2 Years <b>COO:</b> China	Model: SDongleB06-EU/Equivalent	Nos	3	[Insert Price]	[Insert Total]

7	<b>Digital Power Meter</b> Brand Name: Chint/Equivalent <b>Manufacturer's Warranty:</b> 2 Years <b>COO:</b> China	Model: DTSU666-H and DTSU666-H 250 A/50mA Smart Power Sensor/Equivalent	Nos	3	[Insert Price]	[Insert Total]
8	<b>Mounting Structure (Metal Tin Shed)</b> L-Foot Long Rail	Anodized Aluminum Country of Origin: BD Local/ Foreign	Wp	67035	[Insert Price]	[Insert Total]
9	<b>PV Mounting Structure (RCC)</b> Hot Deep Galvanised 65-70 micron	Specification: Purlin MS Angle Bar – 50X50X4mm Rafter MS Angle Bar – 50X50X4mm Pipe – 50mm Dia, Thickness - 2.65mm Bass Plate – 150X150X5mm CC Casting – 254x254x150mm Epoxy Chemical Bolting Country of Origin: BD Local	Wp	137145	[Insert Price]	[Insert Total]
10	<b>Walkway</b> Hot Deep Galvanised 65-70 micron	Specification: 38X38X3mm Angle 20X3mm flat bar Mesh Gap 50mm Country of Origin: BD Local	Mtr	75	[Insert Price]	[Insert Total]
11	<b>DC Cable</b> UV Protected: (1X4 rm), TUV certified, voltage: DC 1500V, suitable for the wide temperature range of -40~90°C, especially for Solar & Photovoltaic applications.  <ul style="list-style-type: none"> <li>• Type: UV Protected DC Cable</li> <li>• Cross-section: 1X4 rm</li> <li>• Certification: TUV certified</li> <li>• Voltage Rating: DC 1500V (low voltage safeguard)</li> <li>• Maximum short-circuit temp.: 250°C</li> <li>• Temperature Range: -40°C to 120 °C</li> <li>• Conductor: Class 5, tinned annealed circular flexible copper conductor</li> <li>• Reference Standard: IEC 50618, IEC 60228, VDE 0295</li> <li>• Outer Sheath: Cross-linked halogen-free material.</li> </ul> <b>Manufacturer's Warranty:</b> 05 Years <b>Life shelf:</b> 25 Years <b>COO:</b> China	UV-protected DC Cable Model: TUV EN50618, IEC62930 1.5KV Solar Cable	Mtr	2200	[Insert Price]	[Insert Total]
12	<b>MC4 connector</b> Applicable for 1500V, 4 sq.mm <b>COO:</b> China	Brand: Leader/Equivalent	Pair	80	[Insert Price]	[Insert Total]

13	<b>Earthing Boring &amp; Earthing Inspection Pit</b>	<p>Earthing the electrical installation with 12.7 mm (1.5") dia G.I. pipe (earth electrode) below G.L up-to main board to be earthed including necessary connecting copper sockets, bolts, nuts, etc. complete for maintaining earth resistance within 5 ohm.</p> <p>(a) Depth of bottom of the main electrode at 36576 mm. (120 ft) from GL &amp; length of electrode 35976 mm. (118 ft).</p> <p>(b). Construction of earthing inspection pit inside measurement 600 mm x 600 mm with 250 mm thick brick in cement mortar (1:4) with 100mm thick RCC top slab (1:2:4) with 1% re-enforcement 450 mm dia water sealed CI man-hole cover with locking arrangement including necessary earthworks, site filling and one brick flat soling 75 mm thick (1:3:6) base concrete for making inlet channel &amp; 12mm thick (1:2) cement plaster with neat finishing etc. all complete up to a depth of 0.75 meter.</p>	Nos	2	[Insert Price]	[Insert Total]
14	<b>Solar AC DB</b>	<p>Sheet Steel Clad (16 SWG), Dust and Vermin Proof, Wall Mounted Siemens Grey Epoxy Resin Powder coated in an automated drying oven, Exhaust Fan, and all other fitting accessories, (Cables, Cable Ducts, Cable Gland, Insulator, Heat shrink Tube S.S Nut-Bolts, Cable Lugs, etc.)</p> <p><b>Roof 1 + Roof 2 + Roof 3 (RCC Rooftop):</b>  Incoming &amp; Outgoing Breaker: 100-100 A MCCB (Adj.)  All Breaker Brand &amp; Origin: Schneider/ABB France/India or Italy  Multifunction Meter For outgoing Breaker  Model: DTSU666-H and DTSU666-H 250 A/50mA Smart Power Sensor including CT Brand: Chint/ Equivalent</p> <p><b>Level - 6, Cineplex RCC Rooftop:</b>  Incoming &amp; Outgoing Breaker: 125-125 A MCCB (Adj.)  All Breaker Brand &amp; Origin: Schneider/ABB France/India or Italy  Multifunction Meter For outgoing Breaker  Model: DTSU666-H and DTSU666-H /Equivalent 250 A/50mA Smart Power Sensor including CT Brand: Chint/Equivalent</p>	Lot	1	[Insert Price]	[Insert Total]

	<b>Solar AC DB</b>	<p>Sheet Steel Clad (16 SWG), Dust and Vermin Proof, Wall Mounted Siemens Grey Epoxy Resin Powder coated in an automated drying oven, Exhaust Fan, and all other fitting accessories, (Cables, Cable Ducts, Cable Gland, Insulator, Heat shrink Tube S.S Nut-Bolts, Cable Lugs, etc.)</p> <p><b>Rooftop Restaurant (Metal Tin Shed) + Stair Room (RCC) + Cantilever (RCC):</b>  Incoming &amp; Outgoing Breaker: 250 A, 125 A, &amp; 100 A - 250 A MCCB (Adj.)  All Breaker Brand &amp; Origin: Schneider/ABB France/India or Italy  Multifunction Meter For outgoing Breaker  Model: DTSU666-H and DTSU666-H /Equivalent 250 A/50mA Smart Power Sensor including CT  Brand: Chint./Equivalent</p>	Lot	1	[Insert Price]	[Insert Total]
15	<b>AC Cable</b>	<p>AC Power Cables Brand: BRB/BBS</p> <p>For Motor/Booster Pump Connection or any low power line:  <b>Note:</b> 2x4 rm (7-w) NYY - 100 mtr</p> <p><b>Inverter to Solar DB to SKS TOWER BBT Tap off Box:</b>  <b>Note:</b>  1Cx16 rm (19-w) NYY - 100 mtr  1Cx25 rm (19-w) NYY - 90 mtr  1Cx50 rm (19-w) NYY - 50 mtr</p> <p><b>Note:</b> The price will change accordingly if the length is increased or decreased.</p>	Lot	1	[Insert Price]	[Insert Total]
16	<b>Potential Earthing (PE) Cable</b>	<p>Earthing Cables Brand: BRB/BBS  1Cx4rm (For PV-PV Earthing)  1Cx16 rm (For PV-Structure, Structure-Structure Earthing)  1Cx16rm (For DC drop-down up to DC earth PIT)  1Cx16 rm (Inverter PE to ACDB Earth Busbar)  1Cx16 rm (For Inverter Body Earthing to SKS Tower AC Earth Busbar)  1Cx16 rm (ACDB Earthing to SKS Tower AC Earth Busbar)  1Cx25 rm (Inverter PE to ACDB Earth Busbar)  1Cx25 rm (ACDB Earthing to SKS Tower AC Earth Busbar)</p> <p><b>Note:</b>  <b>BYA 1x4 rm (7-w) - 100 mtr</b>  <b>BYA 1x16 rm (19-w) - 400 mtr</b>  <b>BYA 1x25 rm (19-w) - 20 mtr</b></p> <p><b>Note:</b> The price will change accordingly if the length is increased or decreased.</p>	Lot	1	[Insert Price]	[Insert Total]



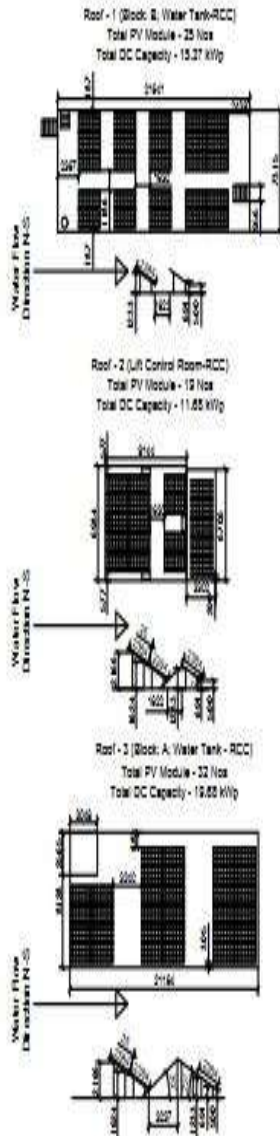
17	<b>Cleaning System</b>	<p>A manual cleaning system is considered for the solar panel, 1 nos. 1.5 hp vertical Motor, 1hp 2nos pressure booster pump will be connected to the pipeline. At every 10-meter interval along the pipeline, a butterfly valve will be installed. When it's time to clean the solar panel, the hose pipe will be connected to the designated valve, and the valve will be opened, allowing for the flow of water or cleaning solution to reach the solar panel. Consider 176 mtr 1" Pipeline &amp; Flexible Lota Pipe 3/4" - 200 RFT including SS Clamp, Royal Plug, Screws, DP Gang box with breaker.  Motor &amp; Booster Pump Brand: RFL/Gazi/LEO  CPVC Pipe Brand: Astrol/NPOLY  <b>Note: The price will change accordingly if the length is increased or decreased.</b></p>	Lot	1	[Insert Price]	[Insert Total]
18	<b>Climbing Ladder</b>	Climbing Ladder with safety guard 10', Main Line 1.5" Dia GI pipe and Step 3/4" GI pipe, Safety guard made with 1.5" Flat bar	Lot	1	[Insert Price]	[Insert Total]
19	<b>Cable Accessorices</b>	Cable Lugs (4rm-350nos, 16rm-60nos, 25rm-26nos, 50rm-10nos, PIB Tape-2nos, PVC Tape (R+Y+B+Black+G) - 36, Heavy duties Cable Ties 300mm - 15nos, SS Nut-Bolt (SS Grade: 201), Flexible Hose Pipe, UV Protected Silicon Glue for Waterproof Solution - 3nos, etc.	Lot	1	[Insert Price]	[Insert Total]
20	<b>Cable Laying (String Wiring, DC-AC Drop Down)</b>	1. uPVC Pipe 1", Elbow, Bend, Tee, Jali Cap, Thickness 2mm or above, Class-D 2. uPVC Pipe 1.5", Elbow, Bend, Tee, Jali Cap, Thickness 2mm or above, Class-D 3. uPVC Pipe 2", Elbow, Bend, Tee, Jali Cap, Thickness 2.5mm or above, Class-D	Lot	1	[Insert Price]	[Insert Total]

	<b>Cable Laying (String Wiring, DC-AC Drop Down)</b>	4. uPVC Pipe 3" , Elbow, Bend, Tee, Jali Cap, Thickness 2mm or above, Class-D 5. GP Sheet Covered Cable Tray (100x50x13mm, 100x75x13mm, 150x100x13mm), 18 SWG - 40 RFT uPVC Pipe Brand: RFL/NPOLY/ANWAR Clamp with Royal Plug, Screw & Waser 1", 1.5", 2", 3", SS Clamp, Royal Plug, Screws, SS Royal Bolt & Pipe Fittings Gum	Lot	1	[Insert Price]	[Insert Total]
21	<b>Installation, Testing &amp; Commissioning &amp; Training</b>	Installation, Testing Commissioning & Training	Job	1	[Insert Price]	[Insert Total]
22	<b>Transportation</b>	204.18 kWp solar system & Official Transport consider	Job	1	[Insert Price]	[Insert Total]
<b>Total In Words:</b>						

**The Design of 204.18 KWp Solar panel**

Roof 1 + Roof 2 + Roof 3 (Combined)

Total PV Module - 76 Nos  
 Total DC Capacity - 46.74 kWp  
 Total AC Power - 40 kW



Rooftop Restaurant + Stair Room + Cantilever

Total PV Module - 166 Nos  
 Total DC Capacity - 102.09 kWp  
 Total AC Power - 90 kW (50 kW + 40 kW)

