

Expression of Interest (EOI)
For Installation of 750 kWp Rooftop Solar PV System under OPEX Model
at Islamic University of Technology (IUT)

A subsidiary Organ of Organization of Islamic Cooperation (OIC), Gazipur, Bangladesh

1. Introduction

The Islamic University of Technology (IUT), a subsidiary organ of the Organisation of Islamic Cooperation (OIC), invites Expression of Interest (EOI) from qualified and experienced bidders/ companies/ firms for the design, financing, installation, operation, and maintenance of approximately 750 kWp grid-connected rooftop solar photovoltaic (PV) plant under the OPEX model.

The project aims to enhance IUT's commitment toward sustainable energy, carbon reduction, and green campus initiatives.

Project Overview

- **Location:** IUT Campus, Board Bazar, Gazipur, Bangladesh. (23°56'52"N 90°22'45"E)
- **Proposed Capacity:** Approximately **750 kWp** (Additional to the existing 240.3 kWp system).
- **Business Model: OPEX** (Operational Expenditure) Model. The selected partner will be responsible for 100% of the investment, including design, supply, installation, testing, commissioning, and long-term Operation and Maintenance (O&M).
- **Scope:** Roof top of Academic buildings, gymnasium, library, auditorium etc.
- **Contract Period:** Typically, 20–25 years via a Power Purchase Agreement (PPA).

2. Objectives

- To invite the prospective bidders to set up a “Grid-connected Rooftop Solar Photovoltaic (PV) Plant” with a net metering facility.
- The University intends that the bidders/companies/firms are invited and selected in a transparent manner to set up the plant so that the university can fulfill the electrical power requirements from the generated solar power.

3. Scope of the work

- Bidder shall visit the site prior to submitting his bid, attend the pre-bid meeting and carefully ascertain the generation capacity of the proposed solar PV Power Plant.
- Bidder should visit the locations available for installation of solar PV power generation plant/s and identify various locations within the campus for installation of Solar PV plant under Institute of Energy and Environment (IEE), IUT and to bid for the complete proposal.
- A tentative site plan of individual generation units proposed to be installed along with the detailed design and engineering of the solar PV system and other related information. Copies of the site drawings can be obtained from the institute on request.
- Bidder to ensure that the energy generation figures claimed through the feasibility report are met. The bidder should mention yearly minimum generation figures for the period of PPA. Performance monitoring and reporting procedures must be stated.

- Bidder must ensure compliance with national regulations and standards. Bidder shall clearly indicate the safety guidelines for installation and operation of solar PV generation plants suggested by IEC, BERC, SREDA, and other related agencies.
- Bidder shall clearly ascertain and mention all the necessary modifications and or new civil or fabricated installations, which are required to be done to facilitate the installation and operation of the proposed plant.
- Bidder will be responsible for procurement and installation of equipment, Integration with existing electrical infrastructure and Operation & Maintenance (O&M) for the contract duration

4. Project Model (OPEX)

- The bidder will invest 100% capital cost
- The University will provide the rooftop, free of cost to install the solar PV power plant.
- Electricity will be purchased by the University under a Power Purchase Agreement (PPA) based on the RFQ to be submitted by the shortlisted bidders.
- Payment shall be based on per kWh tariff
- Contract period: Typically, 20–25 years

5. Eligibility and Qualification Criteria

Interested bidder must meet the following minimum criteria with proof of documents:

5.1 General Eligibility

- Registered legal entity in Bangladesh or internationally
- Must have valid trade license, VAT, and TIN/BIN (for local firms)
- Joint ventures/consortiums are allowed (Technical Experience criteria must be met)

5.2 Technical Experience

Bidder must submit proof of documents for the following requirements.

- Minimum 3 years' experience in supply and services of Solar PV Plants
- At least 5 SCADA-enabled projects completion
- At least one rooftop PV project with capacity ≥ 5 MWp in Bangladesh
- Minimum 5 projects each ≥ 0.4 MWp
- Tenderer must have ISO 9001, ISO 14001, ISO 45001 Certification
- Authorized service partnership with inverter manufacturer

5.3 Financial Capacity

- Minimum average annual turnover: BDT 5 Crore (or equivalent) over last 3 years
- Positive net worth
- Ability to mobilize full project financing

5.4 Technical Capability

- Availability of qualified engineers (Electrical, Civil, and Mechanical/Renewable Energy) and necessary technical facilities.
- Experience with:
 - Grid-tied solar systems OPEX/CAPEX Model
 - Net metering / net billing systems in Bangladesh
 - SCADA/monitoring systems

- 24/7 technical support

5.5 Certifications and Standards

Use of equipment compliant with international standards:

- IEC / UL certified solar modules/inverters/controllers
- SREDA / BSTI or equivalent certifications (if applicable)

Compliance with:

- Bangladesh Energy Regulatory Commission (BERC) guidelines
- Sustainable and Renewable Energy Development Authority (SREDA) policies
- Bangladesh Standards and Testing Institution (BSTI) standards

5.6 Operation and Maintenance

- Proven experience in O&M of solar plants
- Ability to ensure Minimum plant availability
- Performance ratio guarantees

6. Key Technical Requirements (Indicative)

- Capacity: Approximately 750 kWp (expandable if feasible).
- Type: Grid-connected rooftop system (Preferably with European Technology and latest components).
- Solar Modules: Monocrystalline, best efficient in market, minimum 550 Wp, IEC standard.
- Mounting: RCC rooftop / metal structures (lightweight aluminum), with Cable Tray.
- Inverter: Grid-tied string/central inverters (Preferred: SMA, Huawei, Fronius, Schneider or equivalent) with remote monitoring.
- Performance: Minimum annual average Performance Ratio (PR) $\geq 78\%$ and Plant Availability $\geq 98\%$.
- Hybrid Controller for Generator Coupling and Load Management (European Standard).
- Data Collection and Monitoring: Generation Data, Weather Data {Irradiation (Direct and Diffuse), Temperature, Humidity, Wind Velocity, Direction etc}.

Further details on technical specifications are required to be submitted following the attached **Technical Checklist**.

7. Submission Requirements

Interested firms shall submit:

- Detailed Company Profile (Incorporation Certificate, Trade License, e-TIN, VAT/BIN).
- Evidence of Experience (Work completion certificates and operational reports for previous projects).
- Manpower details including a list of qualified engineers.
- Audited Financial Statements for the last 3 years proving the required turnover.
- Technical Proposal including an outline of the proposed implementation plan mentioning total generation, yearly possible output and O&M plan etc.
- Filled up technical checklist (attached with this document)
- Any value-added features (e.g., battery integration, smart monitoring, automated panel cleaning system etc).

8. Selection Process

- Shortlisting based on technical and financial qualifications.
- Shortlisted firms will be invited for the Request for Proposal (RFP) stage.

9. Submission Details

Submission Deadline: 09 September 2026, at 12:30 PM.

Mode: Hard copy in a sealed envelope.

Address:

Planning, Procurement and Development (PPD) Office,
Room No. 305

Administrative Building

Islamic University of Technology (IUT)

Board Bazar, Gazipur

Bangladesh.

IUT reserves the right to accept or reject any or all EOI submissions without assigning any reason.

Prof. Dr. Rakibul Hasan Sagor

Head, PPD Office

Islamic University of Technology (IUT)

Attachment:

1. Technical checklist for Solar Rooftop Project, IUT

Technical checklist for Solar Rooftop Project, IUT

PV Project Inverter:

<i>Sl. No</i>	<i>Technical Specification</i>	<i>Description</i>	<i>Unit</i>	<i>Manufacturer's Guaranteed Specification</i>
1.	Name of the Manufacturer	Manufacturer company name	-	Supplier Must Provide
2.	Address of the Manufacturer	To be mentioned	-	Supplier Must Provide
3.	Country of Origin	Origin (Country) of Manufacturer company	-	Supplier Must Provide
4.	Local office address	Registered Local office in Bangladesh	-	Supplier Must Provide
5.	Model Number	To be mentioned		Supplier Must Provide
6.	Inverter type	Grid-Tie		Supplier Must Provide
7.	Inverter Nominal Capacity	To be mentioned	kW	Supplier Must Provide
8.	Number of MPP Tracker	Multiple MPPTs, MPP Tracker should have minimum 99% efficiency	Nos	Supplier Must Provide
9.	Minimum input voltage	≤200, Inverter start up voltage should be less than or equal 200 Volts	V	Supplier Must Provide
10.	Functional input Voltage range	200-1100V, Minimum functional voltage 200 V and maximum functional voltage 1100 V	V	Supplier Must Provide
11.	Minimum current per MPPT	≥30A, Minimum short circuit current must be greater than or equal to 30A	A	Supplier Must Provide
<i>Mandatory Manufacturer's Safety Features</i>				
1.	Mandatory DC Side Fire Protection (AFCI)	Mandatory safety feature & automatic shutdown system if arcing happens, Fire safety feature must be ensured by AFCI Feature & the supplier must test AFCI feature with proper equipment after installing inverter	-	Supplier Must Provide
2.	DC Arc Detection Range	≥150m, String level DC Arc detection range is minimum 150 m	m	Supplier Must Provide
3.	DC Arc Detection Time	<0.5 sec, Arc detection must be done within 0.5 sec	sec	Supplier Must Provide
4.	AFCI Test Report	AFCI must be tested in Bangladesh and that report need to be submitted with the bid	-	Supplier Must Provide

		submission document. After bid submission this test should be done again in front of the procuring entity's representative.		
5.	Output frequency rate	50	Hz	Supplier Must Provide
6.	Nominal rated output voltage/Tolerance	400	V _{ac}	Supplier Must Provide
7.	Power factor range	0.8 Lagging / 0.8 Leading	-	Supplier Must Provide
8.	Protection Rating	IP66	-	Supplier Must Provide
9.	Smart Cooling System	Natural cooling or air-cooling method is preferable	-	Supplier Must Provide
10.	Relative Humidity	0% RH ~ 100% RH	-	Supplier Must Provide
11.	Total Harmonic Distortion (THD) [%]	<3%	-	Supplier Must Provide
Mandatory Manufacturer's Services				
1.	Remote monitoring	Remote monitoring interface must have performance data, daily generation, power generation pattern & Fault history.	-	Supplier Must Provide
2.	Remote O&M	Remotely commissioning and maintenance according to the alarm generated	-	Supplier Must Provide
3.	Cloud-based monitoring, Protection & Alarm system	Available Alarm, Notification system for safety & Protection in both phone and PC interface	-	Supplier Must Provide
4.	Remote Shutdown Feature	Remote monitoring system must have remote shutdown feature	-	Supplier Must Provide
5.	Application based Plant commissioning or remote commissioning	Smart phone APP based inverter commission option, via USB cable or WLAN, including remote commission & Maintenance option	-	Supplier Must Provide
6.	Warranty	More than 5 Years warranty directly from inverter manufacturer	-	Supplier Must Provide
7.	Manufacturer experience for Roof-top Projects	Supplier must provide manufacturer experience in Bangladesh. Manufacturer must have minimum 10 MW capacity inverter supply	-	Supplier Must Provide

		experience for multiple rooftop projects		
8.	Manufacturer experience for Ground Mounted Projects	Supplier must provide manufacturer experience in Bangladesh. Manufacturer must have minimum 10 MW capacity inverter supply experience for multiple ground mounted projects		Supplier Must Provide
9.	Performance Certificate from end user	At least 3 MW have been installed and operating satisfactory in last 2 years	-	Supplier Must Provide
10.	Manufacturer's authorization	Supplier Must Provide	-	Supplier Must Provide
11.	Mandatory After-Sales Service	Supplier must provide after sales service by inverter manufacturer local service team & rectification or replacement support within 1 week	-	Supplier Must Provide
12.	Local warehouse and spare parts support	Supplier must ensure specific spare inverter in the local warehouse	-	Supplier Must Provide
13.	Certificates /Test Reports	EN62109-1/-2, IEC62109-1/-2, IEC62116, IEC60068, IEC61683, IEC 61727	-	Supplier Must Provide

Experience Criteria of Bidder		
1.	The Bidder shall have a minimum of 3 (Three) years of general experience in the supply of Goods and related services.	Tenderer must submit proof documents.
2.	The Bidder shall have experience regarding SCADA Monitoring and Communication System with a minimum of 5 (Five) operable projects.	Tenderer must submit proof documents.
3.	The Bidder should have completed at least one grid-connected rooftop solar PV project in Bangladesh, with a capacity of ≥ 5 MWp.	Tenderer must submit proof documents.
4.	The Bidder should have a minimum of 5 completed project experience, where the capacity is not less than 0.4 MWp.	Tenderer must submit proof documents.
5.	The Bidder must have ISO 9001, ISO 14001, ISO 45001 Certified.	Tenderer must submit proof documents.
6.	The Bidder must have a Service Partnership with the proposed inverter by tenderer to take care service of the inverter in authorized way.	Tenderer must submit proof documents.