

## **Terms of Reference (TORs)**

**The cleaning of PV modules of 100MW Solar PV Power plant shall be undertaken by Bidder as Under:**

1. Total Capacity of the Plant is 100MW. However, bidder shall be ordered specifically about the area to be cleaned.
2. The Bidder shall use 5 water Bouzers with a minimum of 5 team members (including driver of vehicle) for each team.
3. The water capacity of every Bouzer should be greater than 3000 liters
4. 01 complete Cleaning cycle of 100MW power plant, should not last longer than 10 days (at least 10MW area Cleaning daily)
5. The Water Bouzers / Cleaning Vehicles should be in properly maintained condition (no water or oil leakage, no sharp parts etc.)
6. The following items to be ensure by Bidder
  - a. Water output pressure should be less than 690Kpa.
  - b. Brush bristle preferred to be cotton, but general materials that does not scratch the ARC coating is fine.
  - c. Other terms need to follow "Cleaning Method of JA Solar Photovoltaic Modules'. Attached with this TOR.
7. The Bidder should make efforts to avoid wastage of excessive water.
8. The Cleaning cycle may be stopped in an event of heavy rain. In case of termination of cleaning cycle, the Pro rata payment shall be made to Bidder.
9. Bidder shall submit his rate on per MW basis. 1 MW Contains about 4,000 PV modules installed on 100 Tables Containing 40 Modules each.
10. The bid shall be inclusive of all applicable taxes.
11. The Contract shall be awarded for a duration of 12 months, which may be extended as per applicable laws with mutual consent of both parties.
12. The contract prices shall remain valid for 12 months of Contract irrespective of change in prices of fuel and/or other variables.

### **Bidder/Bidder Responsibilities:**

1. The site shall be handed over to Bidder for cleaning by Company on MW basis. Bidder and Company representative shall jointly examine the area. Bidder should identify and inform about any defects or breakage to Company representative before commencement of work. After completion of work, the site shall be again jointly examined by Company Representative with Bidder and any broken modules identified during inspection and handing over, shall be compensated from Bidder.
2. The cleaning staff members should be equipped with all the proper Personal Protective Equipment (PPE) i.e. helmets, gloves, Safety Glasses safety shoes, uniform.

3. The wipers to be used by Bidder should conform to the requirements of PV Module Manufacturer and shall get approved from COMPANY before start of operations.
4. Bidder shall perform the cleaning with proper care. In case of breakage of PV modules, the Bidder will be penalized as per the present market (ex-site delivery) rate of PV modules.
5. The cleaning activity shall be supervised by Bidder through experienced supervisors who shall monitor/supervise the overall cleaning cycle.
6. The Bidder should clean in the times specified by the Client (early morning, late evening). Cleaning during mid-day is not recommended by per PV Module manufacturer.
7. The cleaning staff will not be allowed to move inside plant apart from designated places and will not be allowed to stay inside the Plant premises at night.
8. The Bidder should mobilize within one day after intimation by the client to start cleaning.
9. The Bidder will be responsible for all the housekeeping and cleaning of litter spread during cleaning cycle.
10. The Bidder will be responsible for repairing of any damages to the internal roads or hydrant area by caused by the Cleaning vehicles.
11. All the Bidder personnel's CNIC / security clearance from relevant Police station will be responsibility of the Bidder.
12. Water Arrangement shall be done by the Client. However, Bidder has to pay the amount of water used as decided by the Management committee.

**I/We certify that the above information and documents provided with the bid are true and factual.**

(Sign. & Stamp of bidder)

## FINANCIAL BID FORM

Sr.#	Name & Description	Unit Price per MW (PKR)
1	PV Module Washing Services for PV modules at Quaid-e-Azam Solar Power Plant, Bahawalpur	

**Note:**

1. Price shall be inclusive of all applicable taxes.
2. Price shall be in PKR (valid for 90 days after submission of Bid).

(Sign. & Stamp of bidder)

Annex-A

## **AFFIDAVIT**

(For Bidder's Use)

As owner/controller of M/s. \_\_\_\_\_

\_\_\_\_\_

I/We accept the terms and conditions as laid down in tender document and advertisement notice. I/We shall also observe all the rules/regulations framed by Government of the Punjab regarding the purchase/provision of items; I also affirm that I/We have never been blacklisted by any Govt/Semi Govt. organization or autonomous body.

I/We declare that our business/firm fulfills all the legal requirements to take part in the bidding and I/We have been authorized by the firm in this regard. I/We also assert that the rates quoted are reasonable with the market rates.

(On behalf of the firm)

NAME:

DESIGNATION:

SIGNATURE:

STAMP OF THE FIRM

Date: \_\_\_\_\_