

# Zonergy Solar Development Pakistan Limited

## Invitation for Bids

**Zonergy Solar Development Pakistan Limited** invites sealed bids for the supply of DC fan( table, pedestal or ceiling) that has a metal body and base. The details of the product required is as below. The bids prepared in accordance with the instructions contained in the bidding documents, must reach at office on or before February 10<sup>th</sup>, 2020 at 11:00am or on the below mentioned emails. Bids will be opened on same day at 11:30am. The Company will not be responsible for any delays. The decision of the Board of directors in this respect shall be final and binding.

General Manager  
Zonergy Solar Development Pakistan Limited.  
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# 1 DC FAN

To qualify, DC fan must have gone through the following test procedures for the evaluation of product performance. Test reports along with product brochure for the DC fans shall be provided with the application for product evaluation.

- A procedure for measuring **air delivery, power input, and energy efficiency value** adapted from IEC 60879:1986: Performance and Construction of Electric Circulating Fans and Regulators;
- A procedure for inspecting **fan blades and guards** adapted from IEC 60335-2-80: Household and similar electrical appliances for safety. Particular requirements for fans.

## Additional Tests to Address Off-Grid Performance/Requirements

- Quality and workmanship inspections
- Voltage fluctuation conditions ( $\pm 15\%$  of rated voltage)
- Harsh environment exposure conditions ( $40C \pm 2^{\circ}C$  temperature and  $93\% \pm 3\%$  relative humidity)
- Drop test (IEC TS 62257-9-5:2018)
  
- Visually inspect the product for protection against ingress of solid foreign objects to determine whether the product meets IP20, IP30, and IP40 requirements, in accordance with Clause 13 (Tests for protection against solid foreign objects indicated by the first characteristic numeral) of IEC 60529:1989+AMD1:1999+AMD2:2013 CSV.

Minimum service value for  
DC fans:

- Pedestal: 2.27 m<sup>3</sup>/min/W  
+/- 5%

- Table: 2.8 m<sup>3</sup>/min/W +/-

Ventilation

System includes at least one  
(1) DC fan (table, pedestal or  
ceiling) that has a metal  
body and base,