

# Solar PPA

## FAQs

# UJAAS<sup>™</sup>

OWN YOUR SUN.  
BE A SOLAR POWER PRODUCER.

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## 1) Solar PPA (power purchase agreement)

For duration of 20 yrs tenure, the solar scheme has been given. Until this duration, M/s ABC would continue to buy power from the investor for this project. All rates and escalation % per year, shall be worked out and upon mutually agreeable scenario, the PPA would be frozen.

## 2) Exit clause from the PPA & Buy down option

If firm M/s ABC, wishes to terminate the PPA at any point of time, it may do so, by a buy down option available as per the table below (which is the first cut value indication by investor). When we sit across table and discuss, a final value could be arrived at. If client wishes to own the assets at any point of time during the tenure, the below table applies.

**Schedule1-BuydownSchedule**

During Operational Year	Buydown Amount (INR Million)/100 kW
<b>PPA term</b>	<b>15 years</b>
1	10
2	9.4
3	8.8
4	8.2
5	7.6
6	7
7	6.4
8	5.8
9	5.2
10	4.6
11	4
12	3.4
13	2.8
14	2.2
15	1.6



### 3) Roof area availability & installation size

- The standard thumb rule is 1 kWp of installation per 100 Sq.ft or 10 Sq.m.
- If it's a flat roof (RCC), panels require tilt as per the latitude of the place.
- If roof is inclined (industrial sheet metal roof), the available inclination would be used to mount the panels.

### 4) Is only South facing roof suitable for solar installation?

- Though South facing slope is ideal, even East-West, or North sloping roof can be accommodated for installation.
- The tilt in this case will be given to face the south side.
- Pls refer the corporate profile of Ujaas where one of the projects in East-West roof has been done.

### 5) What size of Solar system can I explore in my roof/ground

- 1 kWp system in any location in Maharashtra generates on an average 4 kWh (minimal) to 4.5 to 5 units per day (on a bright sunny day).
- This generation is achievable except for Force Majeure conditions.
- In an year almost 320 days of generation possible.
- The annual generation possible is 1400 kWh/kWp.
- Whatever system size, the firm's roof/ground is able to hold, that much generation can be computed.
- Usually firms explore between 30 ~ 50 % of their kWh requirement through solar. (Subject to availability of area available).

### 6) Principle & working

Explained through schematic and simple illustration in the Corporate profile of Ujaas energy.

Since Solar works in synchronization with grid or a DG system, the energy generated through solar is tapped out as long as either of the source is available for synchronization.



**7) At what Voltage level will solar output be tapped/terminated?**

The termination is done at LT level (415 V AC), in client's LT panel. It will be synchronized with the MSEB power in the same panel.

**8) How to arrive at prevailing MSEDCL tariff in a client's campus?**

- Since solar generation is between 6 am to 6 pm usually, the tariffs of MSEDCL at this time slot to be considered.
- From the A, B, C, D zone wise tariff, only those to be considered for this time slot. (MD charges, taxes and other components to be added in the calculation)
- When deduced properly, the tariff usually falls between 8 ~ 8.5 /kWh.

**9) Does Solar PPA tariff offered, have any other component addition?**

- No additives as MD charges, taxes, etc. The tariff offered, is final & unaltered.
- From industry observations as well as market considerations, an escalation of 3 % y-0-y (year on year) will be applied to the tariff being offered.

**10) What is the BG, CG & Security deposit applicable for this PPA scheme?**

There are 3 security measures needed to safeguard the investment for the project.

- 1) Bank guarantee – equals 3 months' billing value (pls refer the worksheet). It can be either through FD, Line of credit, Assets.
- 2) Corporate guarantee - This is not a monetary value. This is an undertaking from the firm in company's letter head, signed by the CMD or equivalent equaling the CAPEX cost, in case the client backs out of the project once the installation and commission is done.
- 3) Security Deposit – If on assessment by investor, the P & L statement of the firm, and if found loss making, in the past 3 years, then a value of 8 lacs / 100 kWp of system size, shall be paid. If non loss making, this clause doesn't apply.



### **11) Any NOC/MEDA obligation required or expenses involved?**

These will be handled by Ujaas. We might just take some request letter, from the firm and take it up with the authorities.

### **12) What docs to be furnished by client?**

- 12 months EB copy.
- P & L statement of past 3 years of the firm.
- A questionnaire on the electricity consumption pattern

### **13) What happens to the generation on Sundays or non-working days?**

- Currently net metering isn't available in the state of Maharashtra, due to which, generation on Sundays/non-working days will be to the account of client.
- If they've running loads that can consume the power on these days, its fine. Else it gets fed to the grid.

### **14) How does the grid synchronization happen in this grid interactive system?**

- Handled totally by the inverter (also called as the PCU – power conditioning unit)

### **15) What are the key benefits to the client in this PPA scheme?**

- Post 20 years PPA, the solar system becomes an asset to the client for free.
- Competitive solar tariff as against Grid tariff and savings thereof.
- If client has bilateral power agreement/open access power buy in (from non renewable source), this system in their campus, will help them comply with their Solar RPO (Renewable purchase obligation).
- 1 kWh generation from Solar, offsets, Co2 footprint by 0.9 kgs, thereby the firm harnesses green energy and contributes to the environment too.
- The area beneath the solar roof installation has atleast 2 ~ 3 deg C, cooling effect.