

JAYAMUKHI COLLEGE OF PHARMACY

(COMMONLY USED WITH JAYMUKHI INSTITUTE OF TECHNOLOGICAL SCIENCES)

100 KWP SOLAR ON-GRID SYSTEM WITH NET METERING FACILITY

Campus in the year 2019 to reduce the carbon emissions and to protect the environment has initiated roof top 100 Kwp solar on-grid system with net metering facility

1	Project Site	JAYAMUKHI-100kwp
2	District Name	Warangal Rural
2	Name of the State	Telangana
4	Location	M/s Jayamukhi Educational Society, Moqdumpur (Vil) Chennaraopet (MD)
5	Irradiation details considered	Simulation data attached
6	Type of system	100 Kwp solar On-grid system with net metering facility
7	Type of PV Modules Considered for the offer	Crystalline Poly
8	Proposed Capacity	100Kwh
9	Projected Module Area Required	10,000 Sq Feet
10	Capacity of each Module proposed	320 W
12	Inverter Capacity	50 KVA X 2Nos
12	Projected Energy Production per year	1,53,000 Units/per year
14	Total Project Cost	62,50,000.00




Principal
Jayamukhi College of Pharmacy
Narsampet-506 332

Total Project Cost for 100kw (-) Rs.	59,50,000/-
Project maintenance for Next 25 years @50/%	29,75,000/-
Total Project cost for 25 years	89,25,000/-
For first 10 years average unit generation (90% efficiency)	15,30,000 units
Next 15 years average unit generation (80% efficiency)	20,65,500 units
Total average units' generation for 25 years	35,95,500 units
Therefore, per unit cost generation	= Total project cost/units generated
	= 89,25,000/35,95,500
Per unit cost	=2.49/-

PAY BACK CALCULATIONS OF SOLAR ON GRID SYSTEMS

Capacity of the System Kwp	100 KW
Price per Watt	59.5 Rs
Total Project Cost	5950000 Lacs
Subsidy @ 30%	1785000
Project Cost after Subsidy	4165000 lacs
No of Units generated by the system	153000 Units
From DG utilization	15300


 Principal
 Jayamukhi College of Pharmacy
 Narsampet-506 332

@10%		
From EB Utilization 90%	137700	
generation cost by using Generator per year	290700	(Considering 1litre diesel generates 3units)
Generation cost by Using EB power per year	1170450	
EB and generator cost per annum	1461150	
Depreciation as per section 32 of the income tax act 1961		
Project cost after Subsidy	4165000	
1 st year @80%	N/a	
Depreciation @33.3%	N/A	
2nd year depreciation on balance 20%	N/A	
Depreciation @ 33.3%	N/A	
3rd year depreciation on balance 20%	N/A	
Depreciation @33.3%	N/A	
4th year depreciation on balance 20%	N/A	
Depreciation @33.3%	N/A	
5th year depreciation on balance 20%	N/A	
Depreciation @33.3%	N/A	
Total Depreciation in five years	N/A	


 Principal
 Jayamukhi College of Pharmacy
 Narsampet-506 332

after Subsidy project
cost

4165000

EB and Generator cost per
annum

1461150 per year

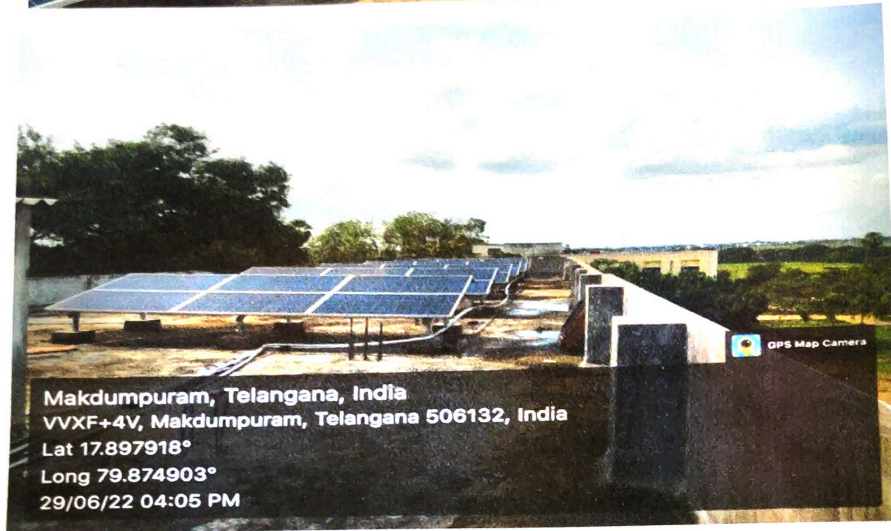
Payback period for
the system

2.85049447

4 years



Principal
Jayamukhi College of Pharmacy
Narsampet-506 332



Solar panels in the campus commonly shared by Jayamukhi institute of technological sciences and Jayamukhi college of pharmacy

Solar energy:

Campus is provided with solar panels generating electricity in the campus by absorbing sunlight and heat. The energy generated is used as alternative so to power supplied to the campus.

Wheeling to the grid:

The additional power generated in the campus through solar panels after all the needs are transported outside to the grid.

Use of led bulbs:

Use of power efficient equipment and use of led bulbs/tube lights in the campus is done for less power consumption or to save electricity when compared to other light sources.

Principal
Jayamukhi College of Pharmacy
Narsampet-506 332