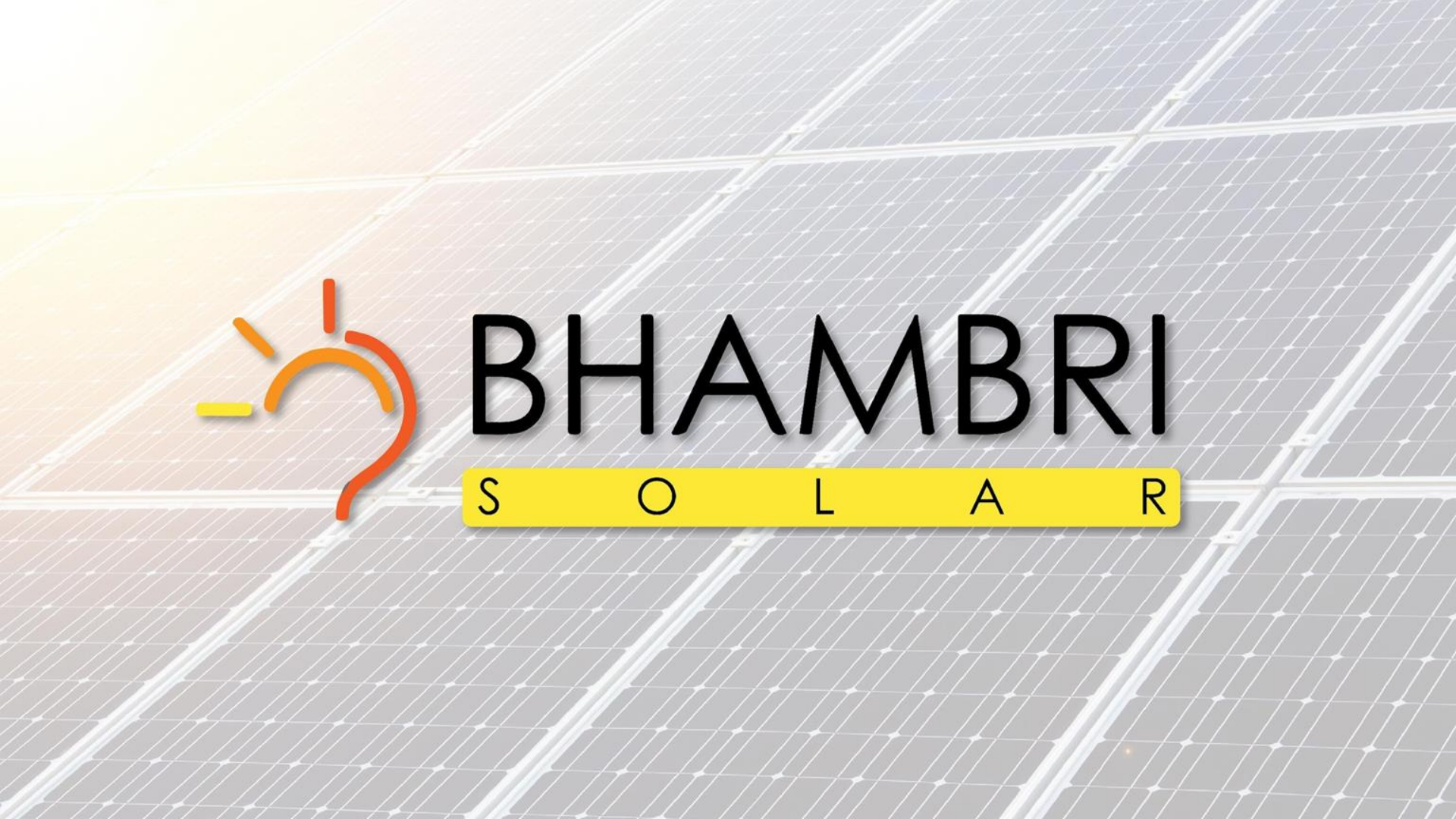

BHAMBRI
SOLAR

MSME

MICRO, SMALL & MEDIUM ENTERPRISES

सूक्ष्म, लघु एव मध्यम उद्यम

OUR STRENGTH • हमारी शक्ति

Ministry of MSME, Govt. of India

Life of MSME's

- **LABOUR ISSUES**
- **PAYMENTS/FINANCES**
- **ORDERS**
- **OPERATIONS**
- **ELECTRICITY**

FACTORY OWNERS & BUSINESS HEAD

DO YOU WANT TO MAKE AN

AUTOMATIC COST SAVING MACHINE ?

To Expand Your Margins 💰 Like Crazy..!!

Who Am I ?

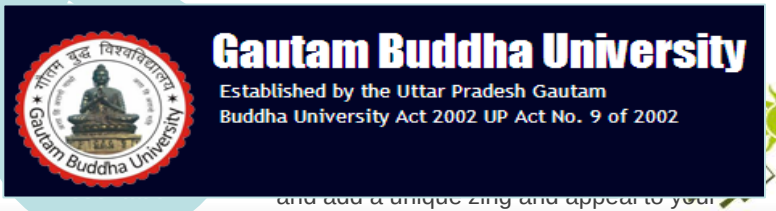
INDIA'S #1 ZERO BILL EXPERT

CREATOR OF "3 STEPS TO ZERO ELECTRICITY BILL" BOOK

17+ YEARS OF EXPERIENCE IN SOLAR INDUSTRY

#1 KYB PROTOCOL EXPERT

We have Served…



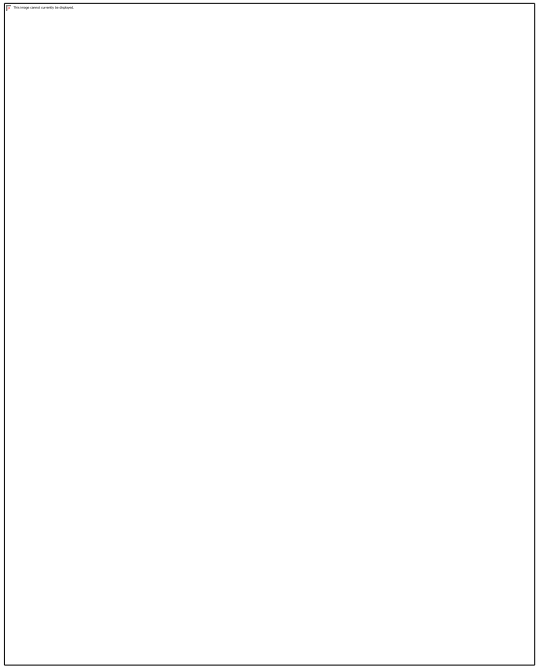
Presentations.

Presentations.

Our Esteemed Clients

Our Esteemed Clients

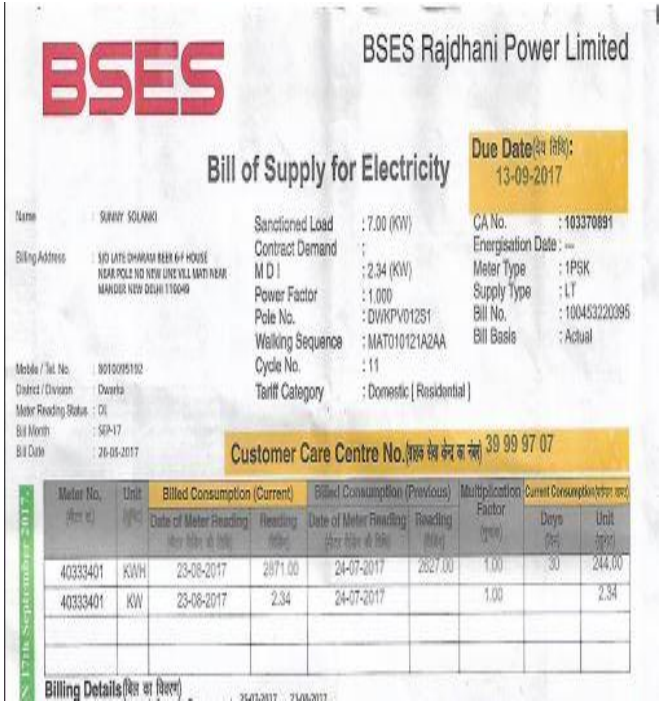
KYB Protocol



Why should you go Solar?

- Solar Energy Production in India is Now Cheapest Across the World
- Reduce Fixed recurring cost
- Reduce new cable cost
- 100% Depreciation Benefit
- Factories have ideal flat Roof

How to select solar system capacity



BSES Rajdhani Power Limited

Bill of Supply for Electricity

Due Date/देय तिथि: 13-09-2017

Name : SUNNY SOLANKI

Billing Address : S/O LATE DHARAM BEER 6-F HOUSE NEAR POLE NO NEW LINE VILL MATI NEAR MANDIR NEW DELHI 110049

Sanctioned Load : 7.00 (KW)
Contract Demand :
M D I : 2.34 (KW)
Power Factor : 1.000
Pole No. : DWKPV012S1
Walking Sequence : MAT010121A2AA
Cycle No. : 11
Tariff Category : Domestic [Residential]

CA No. : 103370891
Energisation Date : --
Meter Type : 1PSK
Supply Type : LT
Bill No. : 100453220395
Bill Basis : Actual

Mobile / Tel. No. : 8010095192
District / Division : Dwarka
Meter Reading Status : OK
Bill Month : SEP-17
Bill Date : 26-08-2017

Customer Care Centre No./ग्राहक सेवा केन्द्र का नंबर: 39 99 97 07

Meter No.	Unit	Billed Consumption (Current)		Billed Consumption (Previous)		Multiplication Factor	Current Consumption	
		Date of Meter Reading	Reading	Date of Meter Reading	Reading		Days	Unit
40333401	KWH	23-08-2017	2871.00	24-07-2017	2627.00	1.00	30	244.00
40333401	KW	23-08-2017	2.34	24-07-2017		1.00		2.34

Billing Details/बिल का विवरण

Average monthly units: 6000 units

Per day units: 6000/30 = 200 units

1 kw Solar generate per day = 4 units

Solar system capacity: 200/4 = 50 kw

Can I run my factories full load on solar?

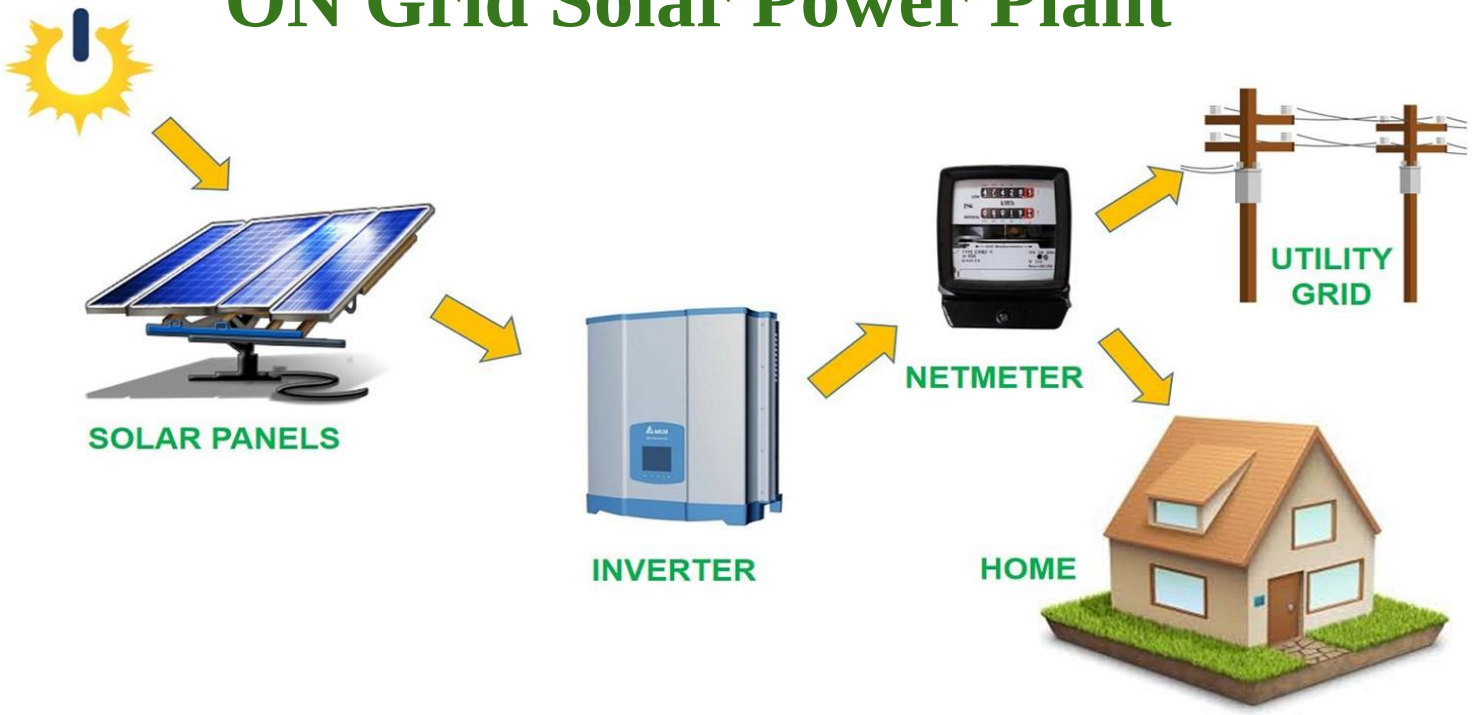
Key Points

- 100 square feet area for 1kw
- Shadow free area required
- Solar panel should face south for northern hemisphere
- 1kw plant generate 4 units a day
- Tilt angle is usually Latitude of the place
- Life of solar power plant up to 25+ years

TYPES OF SOLAR POWER PLANT

- ON Grid Solar Power Plant
- OFF Grid Solar Power Plant
- Hybrid Grid Solar Power Plant

ON Grid Solar Power Plant



TYPES OF SOLAR PANEL

Monocrystalline

Polycrystalline

Thin Film

Mono Crystalline

Monocrystalline

Monocrystalline solar panels have solar cells made from a single crystal of silicon

Aesthetics : Solar cells are a black hue

Efficiency : 15% to 20%

Life : 25+ years

Sainik Farm (20 kw)

Poly Crystalline

Polycrystalline

Polycrystalline solar panels have solar cells made from many silicon fragments melted together

Aesthetics : Solar cells have a bluish hue

Efficiency : 14% to 16%

Life : 25+ years

Poly crystalline

Thin Film

Thin Film

Thin-film solar panels are typically made with Cadmium Telluride, Amorphous Silicon, Copper Indium Gallium Selenide, Gallium Arsenide

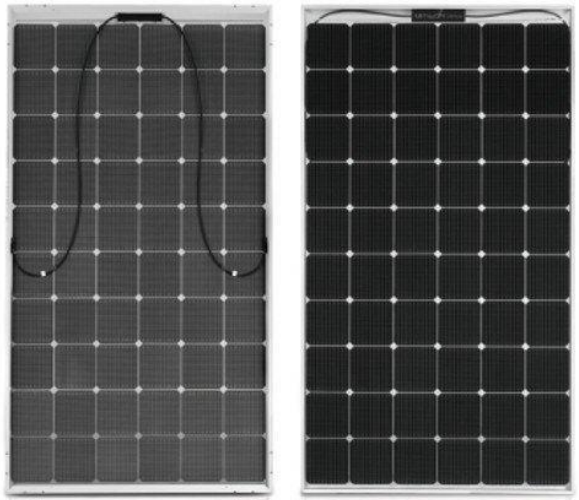
Aesthetics : Solar cells have a black- blue hue

Efficiency : 11% to 13%

Life : 25+ years

Thin Film

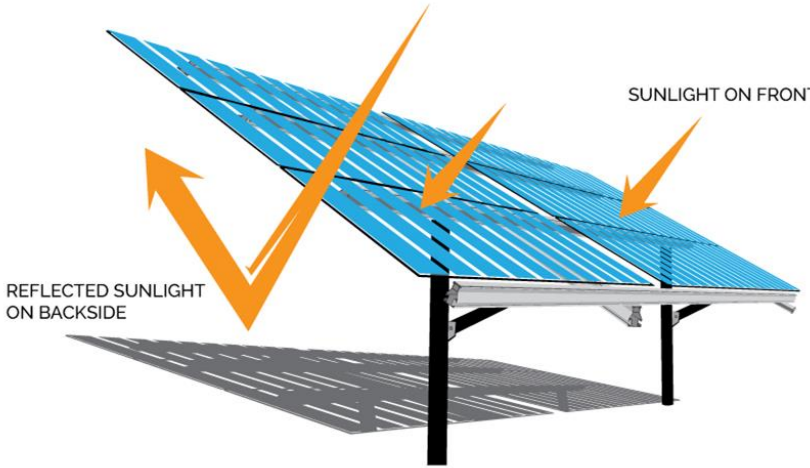
New Technology



Bifacial Panel

Half Cut Panel

Bifacial Panel

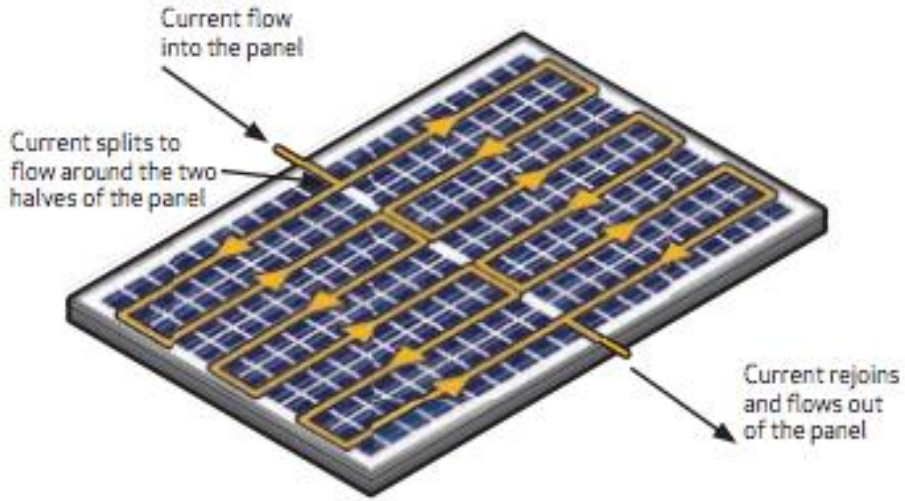


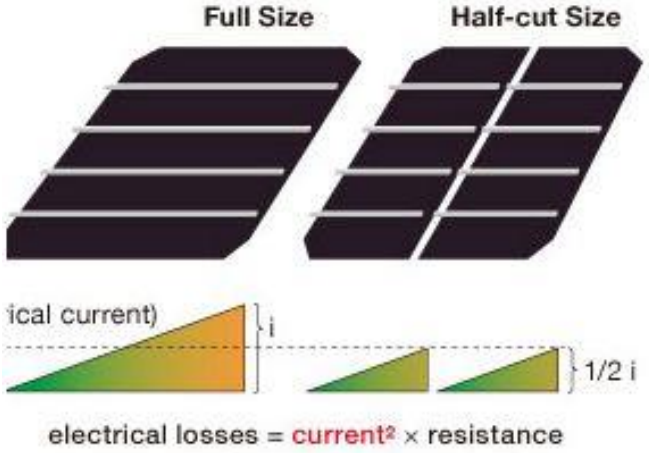
Total Produced Energy
energy from the front + energy from the back

Efficiency : 22% to 30%

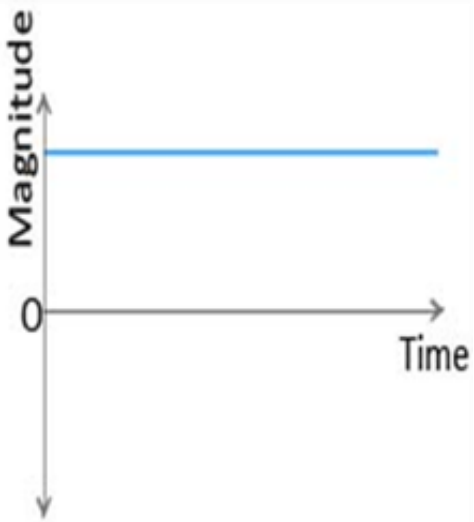
Pushpanjali (30 kw)

Half Cut Panel

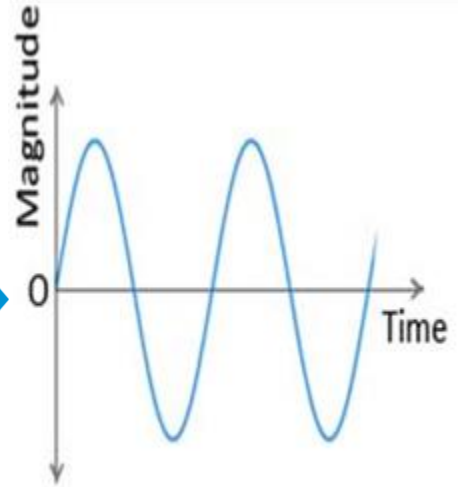




Solar Inverter



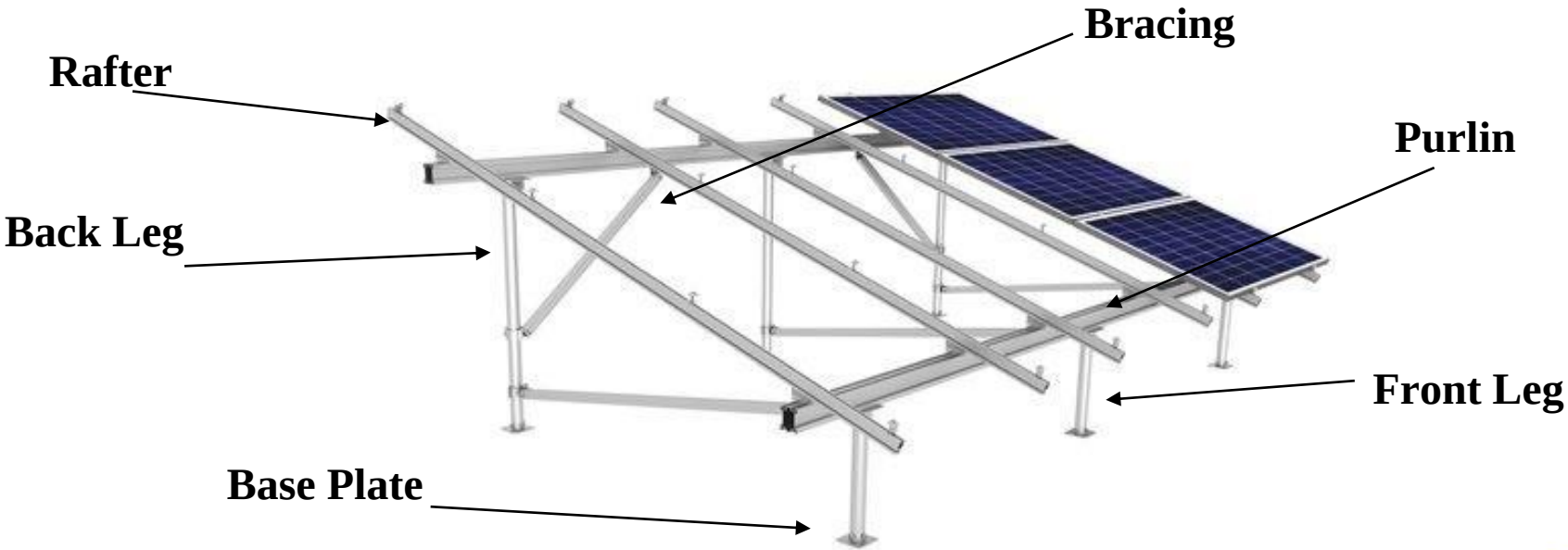
Direct Current



Alternating Current

Solar Inverter

Solar Structure



Galvanizing Process

- Hot dip Galvanized
- Pre Galvanized
- Aluminum Structure

- **Galvanize : 75 to 80 micron**
- **Rust proof Structure**
- **Life : 20+ year**

Galvanized structure

Non Galvanized structure

Rusting

Different Types Of Solar Structure： Ground Mount Structure

Rooftop Structure

Super Structure

Tin Shed Structure

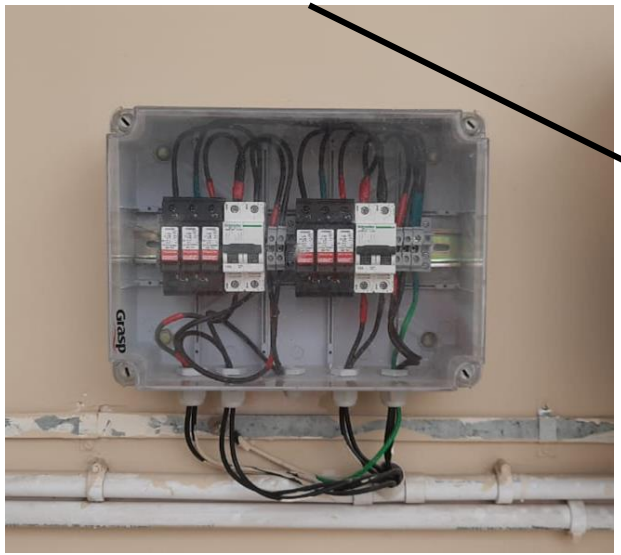
Bifacial Solar Structure as Solar Roof

Parking Shed

Protection Devices

DC MCB

DC SPD

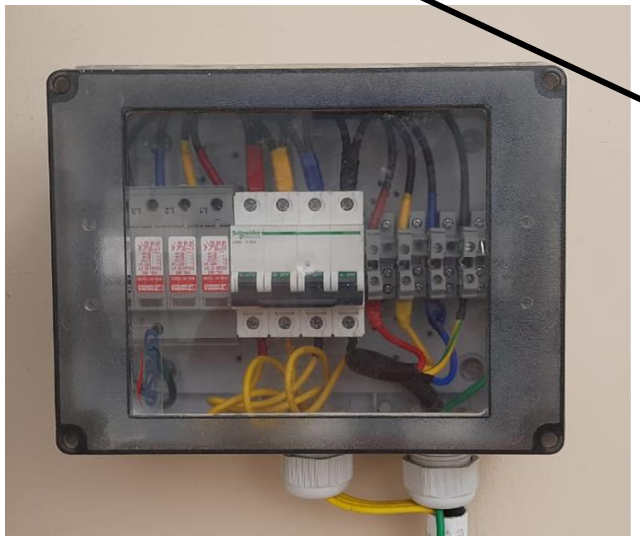


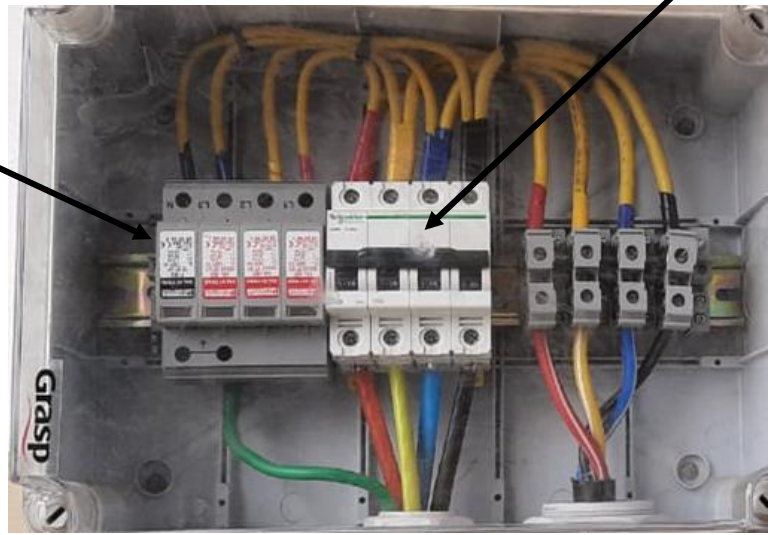
DC Distribution Box

Protection Devices

AC SPD

AC MCB

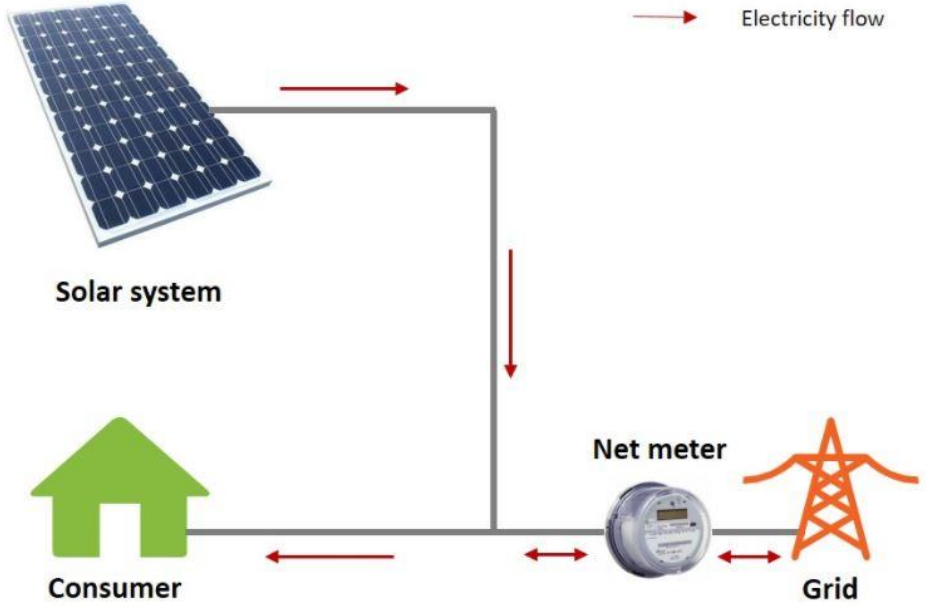




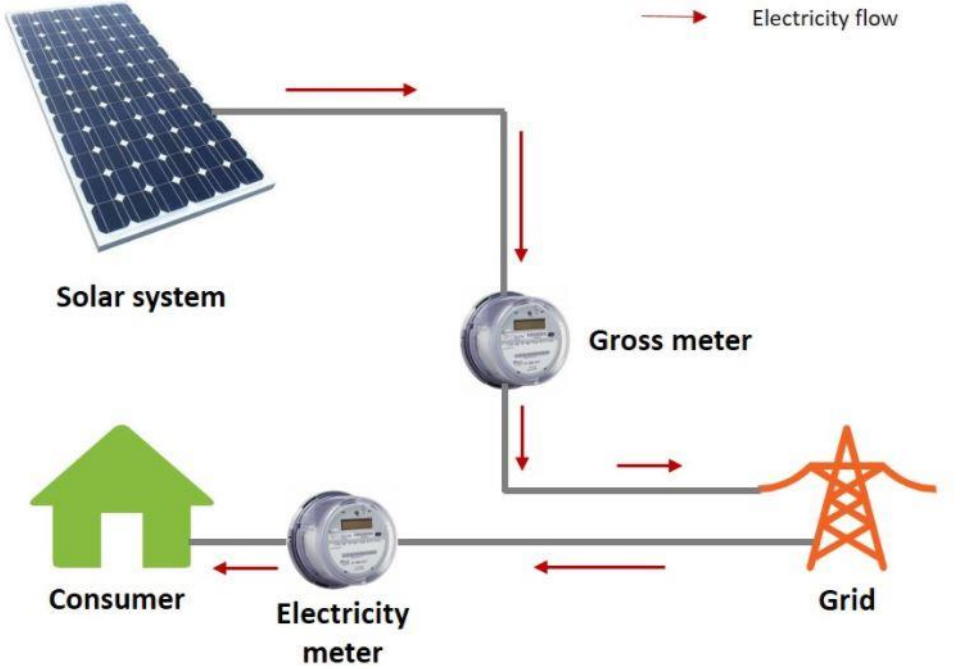
AC Distribution Box

Earthing & Lightning Arrestor

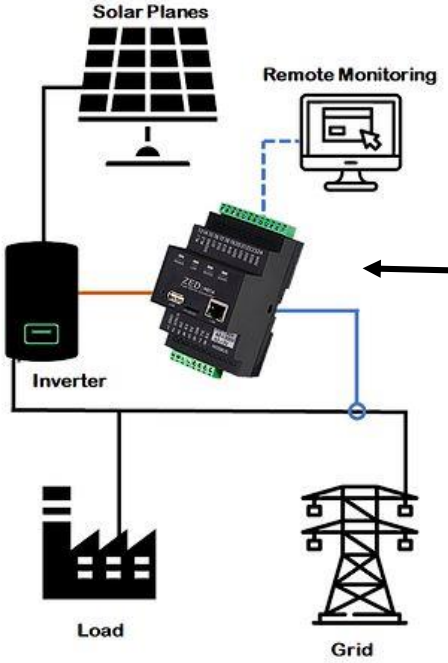
Net Meter



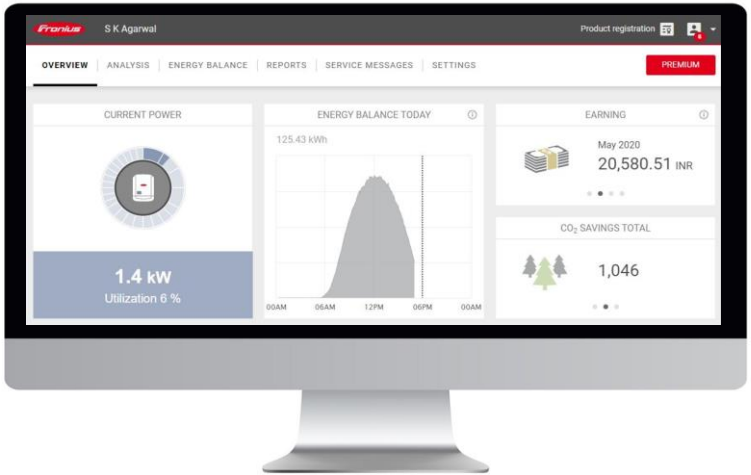
Gross Meter



Zero Export Device



How can I check my generation?



CO2 SAVINGS

40.81 Ton

TREE SAVINGS

1,046

FUEL SAVINGS

272,068 km

Online Monitoring

Site Visit

Need Analysis

NEED ANALYSIS FORM FOR SPP

SITE VISIT FORM FOR SOLAR POWER PLANT

Your email address (**contact@bhambrienterprises.com**) will be recorded when you submit this form. Not you? Switch account

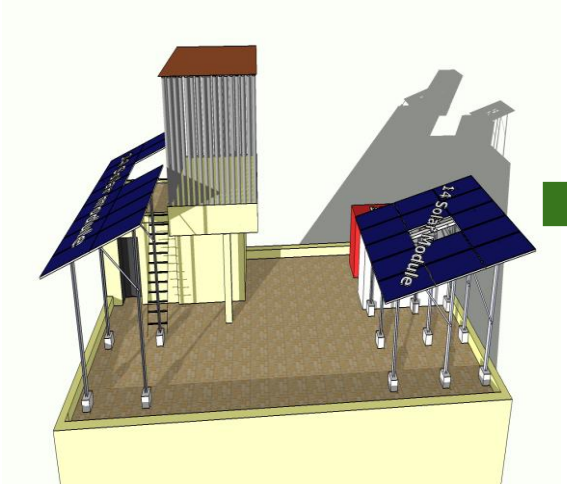
Company/Institute Name

Your answer

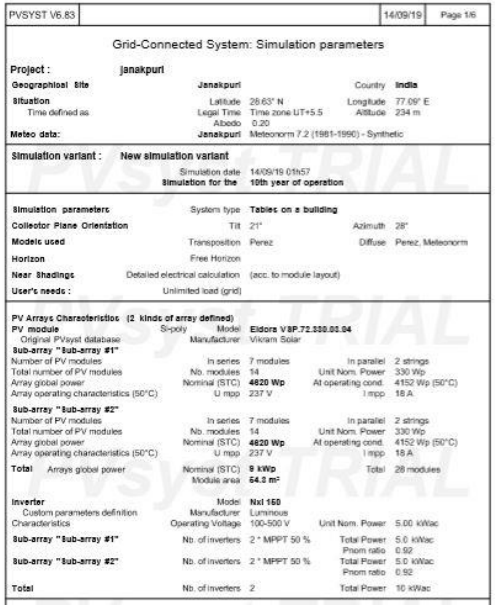
DATE

Structure Analysis

Shadow Analysis



Generation Report



PVSYST V6.83 | 14/09/19 | Page 1/6

Grid-Connected System: Simulation parameters

Project : janakpuri

Geographical Site	**Janakpuri**		Country	**India**
Situation	Latitude	28.63° N	Longitude	77.09° E
Time defined as	Legal Time	Time zone UT+5.5	Altitude	234 m
	Albedo	0.20		
Meteo data:	**Janakpuri**	Meteonorm 7.2 (1981-1990) - Synthetic		

Simulation variant : **New simulation variant**

Simulation date	14/09/19 01h57
Simulation for the	**10th year of operation**

Simulation parameters	System type	**Tables on a building**		
Collector Plane Orientation	Tilt	21°	Azimuth	28°
Models used	Transposition	Perez	Diffuse	Perez, Meteonorm
Horizon	Free Horizon			
Near Shadings	Detailed electrical calculation	(acc. to module layout)		
User's needs :	Unlimited load (grid)			

PV Arrays Characteristics (2 kinds of array defined)

PV module	Si-poly	Model	**Eldora V8P.72.330.00.04**	
Original PVsyst database		Manufacturer	Vikram Solar	
Sub-array "Sub-array #1"				
Number of PV modules		In series	7 modules	In parallel 2 strings
Total number of PV modules		Nb. modules	14	Unit Nom. Power 330 Wp
Array global power		Nominal (STC)	**4620 Wp**	At operating cond. 4152 Wp (50°C)
Array operating characteristics (50°C)		U mpp	237 V	I mpp 18 A
Sub-array "Sub-array #2"				
Number of PV modules		In series	7 modules	In parallel 2 strings
Total number of PV modules		Nb. modules	14	Unit Nom. Power 330 Wp
Array global power		Nominal (STC)	**4620 Wp**	At operating cond. 4152 Wp (50°C)
Array operating characteristics (50°C)		U mpp	237 V	I mpp 18 A
Total Arrays global power		Nominal (STC)	**9 kWp**	Total 28 modules
		Module area	**64.8 m²**	

Inverter		Model	**Nxl 150**	
Custom parameters definition		Manufacturer	Luminous	
Characteristics		Operating Voltage	100-500 V	Unit Nom. Power 5.00 kWac
Sub-array "Sub-array #1"		No. of inverters	2 * MPPT 50 %	Total Power 5.0 kWac
				Pnom ratio 0.92
Sub-array "Sub-array #2"		No. of inverters	2 * MPPT 50 %	Total Power 5.0 kWac
				Pnom ratio 0.92
Total		No. of inverters	2	Total Power 10 kWac

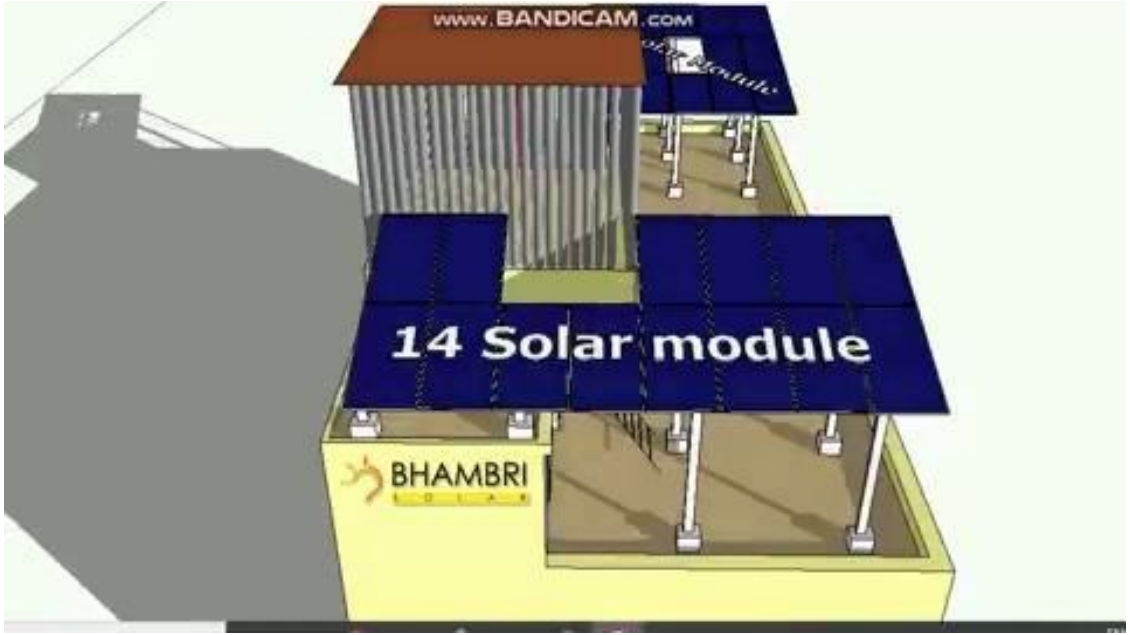
Installation

Net metering

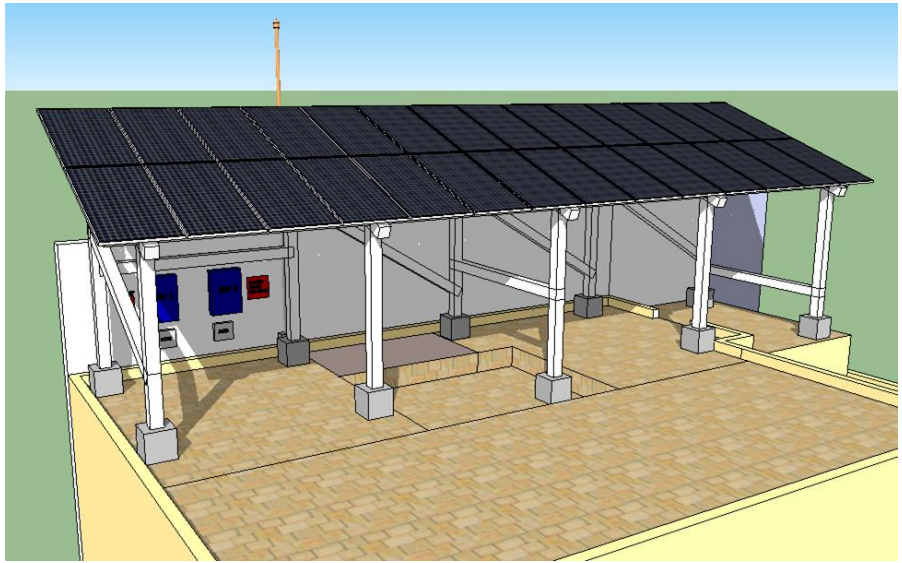
Online Monitoring

Handover Documents

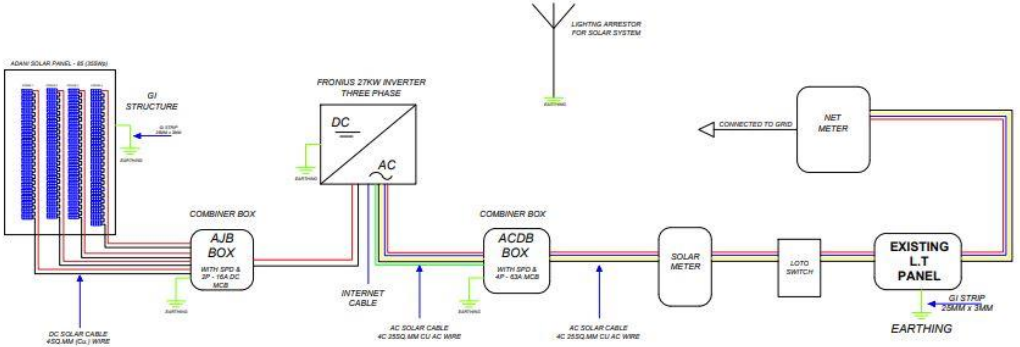
3D Design

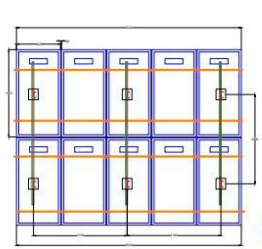


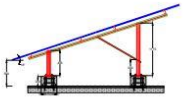
3D Design

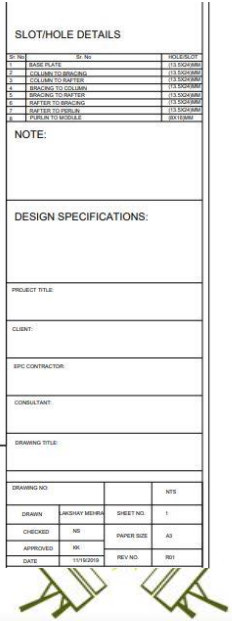


Layouts





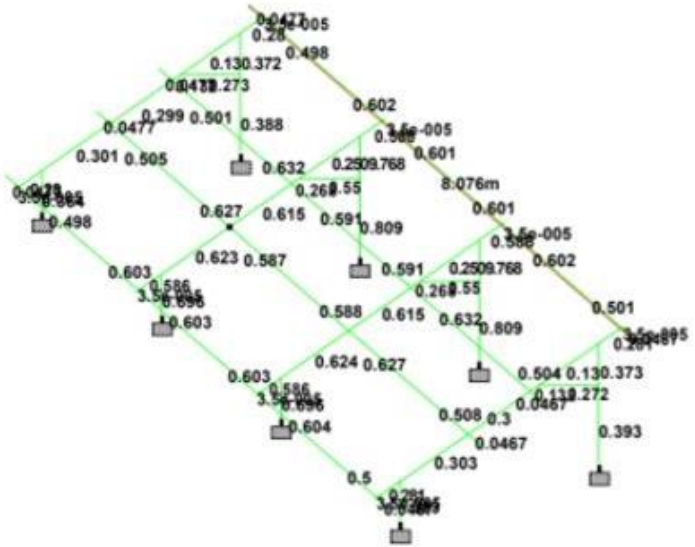


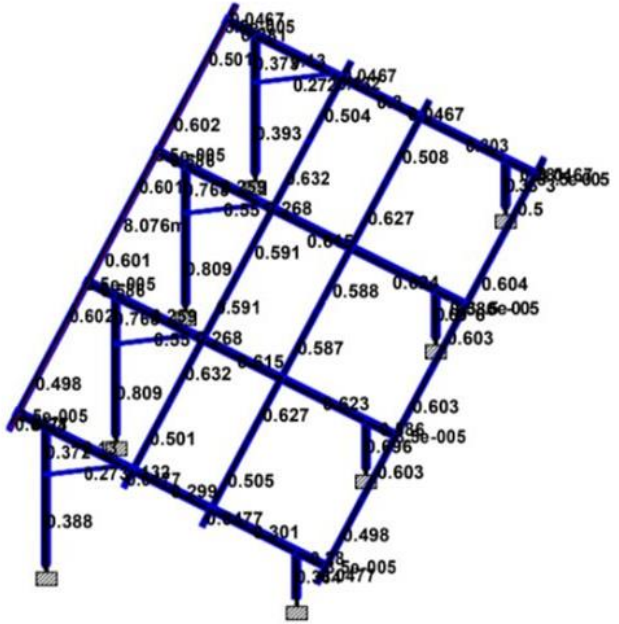


LOGO	INSTALLER INFORMATION	PROJECT DETAIL	SYSTEM DESCRIPTION				INSTALLER INFORMATION	
BHAMBRI SOLAR	BHAMBRI SOLAR PVT. LTD.	ADDRESS	MODULE	ADANI (355Wp)	TILT ANGLE	-	DATE	-
		PUSHPANJALI FARMS	QUANTITY	85	AZIMUTH	-	DESIGNED BY	LAKSHAY
			SYSTEM (DC)	30Kw	INVERTER	FRONIUS	CHECK BY	
			SYSTEM (AC)	-	QUANTITY	1	SHEET SIZE	A4

SL NO.	DESCRIPTION	TYPE	QUANTITY PER TABLE OF TABLES (QTY)	TOTAL QTY (QTY)	TOTAL NO OF FASTENERS (QTY)	DIA OF BOLT (MM)	LENGTH OF BOLT (MM)	GRADE	DETAILS
1	COLUMN TO RAFTER	M12X30	12	3	36	12	30	SS304	SPRING WASHER
2	RAFTER TO PURLIN	M12X30	18	3	54	12	30	SS304	SPRING WASHER
3	COLUMN TO BRACING	M12X30	25	3	75	12	30	SS304	SPRING WASHER
4	PURLIN TO MODULE	M8X20	60	3	180	8	20	SS304	SPRING WASHER

Structure Design





Poor Installation

Due to Sub Standard Devices and Wrong Cable Sizes

Common Solar Problems

1)Micro Cracks - They appear due to poor quality of PV module manufacturing ,improper handling and bad installation.

2)Snail Trails -Snail trails are the brown lines that form on your solar panels which give the appearance of snail tracks on the surface of your panels. They are caused by a build-up of moisture in your solar panels which reduces their overall performance and can even cause them to fail prematurely. (Due to bad quality Silver paste)

3)Hot Spots -Hot spots occur when a panel's energy production pathways are disrupted. When the panel's energy cannot flow through to your inverter, it becomes overloaded and radiate excess heat, so they get 'hot'. It is one of the most common problems with solar panels Hot spots can reduce your solar panel's performance and lifespan and, in some cases, can even make them irreparable.

They are caused by several factors like the accumulation of dirt or bird droppings, partial shading, and even structural defects.

Hot Spots, Microcracks,Snail trail

How to maintain solar power plant

- Once in a week
- Time : Morning/Evening

Automatic Cleaning System

Increase efficiency
Reduce Hassle

https://drive.google.com/file/d/1-hH6xmSdNruebIOrmwauwvbS7-1rFL81/view?usp=sharing

Subsidy

The Government of Haryana has introduced State Renewable Energy Scheme to promote implementation of renewable energy applications in MSME sector.

Under the State Renewable Energy Scheme for implementation of renewable energy sources based technology applications in MSMEs, the State Government shall provide interest subsidy on term loan for renewable technology at the rate of 5%, up-to a maximum of INR 10 lakh per year for three years, to an eligible industry.

and shall remain in operation for a period of 5 years up-to 25/02/2024 or till the validity of Haryana Micro, Small and Medium Enterprise (MSME) Policy, 2019.

HOW YOU CAN HAVE SOLAR

- CAPEX
- LOAN
- RESCO

ROI

Microsoft Excel
o-Enabled Works

ROI < 4 years

Testimonial

Mr. Sanjeev Jain
(CEO of TNS networking)

“With Air conditioners running 24*7 in summers, the bill was rocket high in summers. Ruchi suggested a solar plant with tracker. We also felt the difference in the cooling in the rooms below. Great products at a wonderful price!!!

Testimonial

Sister Beena
(Notre dame School)

“Ruchi visited our convent & school, she saw all our bills. She explained what was best for minimizing the bill at each place & helped us to get the govt subsidies. Ruchi is very friendly and professional. The solar system installed by Bhambri solar has exceeded our expectations and we are very happy with her and her team.”

Testimonial

“Hum dil khol kr AC chalate hai din raat aur bill humara zero aa raha hai. Thank you Ruchi”

Gurpreet Khurana
(Director of Le Vastram)

Zero bill

BSES

Date of Print Out: 17.07.2020

BSES Rajdhani Power Ltd.

Bill of Supply for Electricity

GSTIN : 07AAGCS3187H2Z3

Due Date: --

Name : NARINDER PAL SINGH KHURANA & GURPREET SINGH KHURANA
Billing Address : S/O GURBACHAN SINGH & S/O NARINDER PAL PLOT NO- M-116 S/F BLOCK-M VIKAS PURI NEW DELHI 110018

Sanctioned Load	:5.00 (kW)
Contract Demand	:
M D I	:4.74 (kW)
Power Factor	: .997
Pole No.	:VKPPJ314S1
Meter Reading Status	:DL
Cycle No.	:0N

CA No. :152898674
Energisation Date :20.07.2019
Meter Type :3PSK
Supply Type :LT
Bill No. :100036154405
Bill Basis :Actual
O.D. No. :R/20/10189206225
CCTV Tagged :No
Street Light Tagged :No
WI-FI Tagged :No

Mobile / Tel. No. :9810693931
Email ID :
District / Division :Vikas Puri
Walking Sequence :VKP010158Q0BS
Bill Month :JUL-20
Bill Date :15-07-2020

Tariff Category :Domestic [Residential]

Customer Care Centre No. 39999707

Meter Details in Annexure

Billing Details — Current Period Charges (02-06-2020 to 08-07-2020)

Fixed Charges (A)	Slab-wise Energy Charges: Cons. Measrd During	Billed Units	Unit Rate	Amount(B)	Slab-wise FPA/PPA: FPAC% on B	Amount(C)	TOD: TOD% on B	Surg/Rebt Amount (D)	Sechi@8% on (E=A+B+D+R)	Elec.tricity Tax @ 5%(H)	Total Amount (A+B+C+D+E+F+G+H)
306.19 1.23 Mth(s)									24.50	434.34	800.97
PPAC on Fix Chg(G)									Pension Surcharge @3.80%(F)		
24.30									11.64		
CCTV Units									CCTV Bill Amount (I)		
0.00									0.00		
Street Light Units									Street Light Points (W)		
	TOTAL ->	0		0.00		.00			10W 20W 40W		
WI-FI Units											

Past Dues / Refunds / Subsidy

Arrears / Refunds: Amount	Period to which it relates	Late Payment Surcharge (LPSC)	Other Charges, if any *	Total Charges Payable	Refund(R) / Subsidy*	Net Amount Payable
(214.46)		12.60	0.00	599.11	0.00(800.97)	(201.86)

Amount not immediately payable, if any. Rs. 0.00 Reasons

Service line cum development charges paid	Rs. 14364.99	Security Deposit with DISCOM	Rs. 4500.00
Interest accrued for FY 2019-20 already adjusted in bill No.100095746337 (generated for the period 12-03-2020 to 1-04-2020).			Rs. (218.20)
Interest for FY 2020-21 will be adjusted in your first bill to be generated in FY 2021-22			

Bill Amount Payable
Rs. 0.00
Due Date of Payment
--
If payment is made after the due date, LPSC for the delay, shall be charged in the next bill.

Last payment Rs. 15700.00 received on 24-03-2020 Payment Accounted Upto. 12-07-2020
The connection shall be liable for disconnection on non payment of all dues(including arrears of previous bill(s)) by due date, after notice as per Section 56(1) of the Electricity Act, 2003.

BSES

Date of Print Out: 17.07.2020

BSES Rajdhani P

Meter Details Annexure

CA No. :152898674
Bill No. :100036154405
Bill Date :15-07-2020
Name :NARINDER PAL SINGH KHURANA & GURPREET SINGH KHURANA
Billing Address :S/O GURBACHAN SINGH & S/O NARINDER PAL PLOT NO- M-116 S/F BLOCK-M VIKAS PURI NEW DELHI 110018

Net Meter Consumption Details (Date of Reading : 08-07-2020)

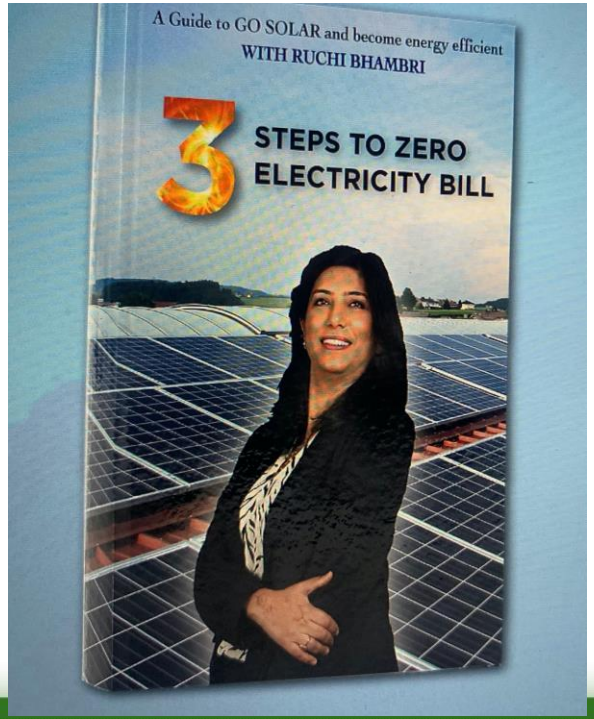
Total Solar Generation Units	For The Billing Period	Cumulative Generation in FY	Solar Installation Details	Date of Installation	Capicity kWp
	4768	5450		02-01-2020	10.73

B/F Units (If any)	Export Reading			Import Reading			Net Difference			Moderated Units			C/F Units (If any)
	Normal	Peak	Offpeak	Normal	Peak	Offpeak	Normal	Peak	Offpeak	Normal	Peak	Offpeak	
0	3116	0	0	1710	0	0	(1406)	0	0	0	0	0	(1406)

(Consumption in the above table are in kWh/kVAh, as applicable)

Meter No	Units	Billed Consumption (Current): Date of Meter Reading	Reading	Billed Consumption (Previous): Date of Meter Reading	Reading	Multiplication Factor	Current Consumption: Days	Units
47001468	kWh	08-07-2020	6,952.50	01-06-2020	2,184.59	1.00	37	4,768.00
47001468	kW	08-07-2020	8.26			1.00		8.26
47001468	kVAh	08-07-2020	6,953.30	01-06-2020	2,185.30	1.00	37	4,768.00
47001468	kVA	08-07-2020	8.26			1.00		8.26
48650966	kWh	08-07-2020	3,321.50	01-06-2020	1,611.58	1.00	37	1,710.00
48650966	kW	08-07-2020	4.74			1.00		4.74
48650966	kVAh	08-07-2020	3,329.50	01-06-2020	1,613.09	1.00	37	1,716.00
48650966	kVA	08-07-2020	4.74			1.00		4.74
48650966	kWh_N	08-07-2020	4,922.00	01-06-2020	1,805.83	1.00	37	3,116.00

Gift for everyone



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