NRGY6
SOLAR

NRGY6 (P) Ltd

Roof Top Solar P.V. system Proposal under CAPEX (PM • Surya Ghar : Muft Bijli Yojana)

DIPP No. 147644 Regd., Start-up Under Govt. Of India,

UPNEDA Empanaled Vender

Your Partner for Green & Sustainable Solutions

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www.nrgy6.com

UPNEDA

CERTIFICATE NO:
DIPP147644

Government of India
Ministry of Commerce & Industry
Department for Promotion of Industry and Internal Trade

#startupindia

CERTIFICATE OF RECOGNITION

This is to certify that ***NRGY6 PRIVATE LIMITED*** *incorporated as a* ***Private Limited Company*** *on* ***23-08-2023*** *is recognized as a startup by the Department for Promotion of Industry and Internal Trade. The startup is working in 'Renewable Energy' Industry and 'Renewable Energy Solutions' sector as self-certified by them.*

This certificate shall only be valid for the Entity up to **Ten** years from the date of its incorporation only if its turnover for any of the financial years has not extended **₹ 100 Cr.**

03-10-2023	22-08-2033
DATE OF ISSUE	**VALID UPTO**

PM-Surya Ghar: Muft Bijli Yojana

Cabinet approves PM-Surya Ghar: Muft Bijli Yojana for installing rooftop solar in One Crore households
Households to get 300 units of electricity free every month

The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi, has approved **PM-Surya Ghar: Muft Bijli Yojana**

Central Financial Assistance (CFA) for Residential Rooftop Solar

- The scheme provides a CFA of 60% of system cost for 2 kW systems and 40% of additional system cost for systems between 2 to 3 kW capacity. The CFA will be capped at 3 kW. At current benchmark prices, this will mean Rs 30,000 subsidy for 1 kW system, Rs 60,000 for 2 kW systems and Rs 78,000 for 3 kW systems or higher.

- The households will apply for subsidy through the National Portal and will be able to select a suitable vendor for installing rooftop solar. The National Portal will assist the households in their decision-making process by providing relevant information such as appropriate system sizes, benefits calculator, vendor rating etc.

- Households will be able to access collateral-free low-interest loan products of around 7% at present for installation of residential RTS systems up to 3 kw depends upon your credit ratings and may differ from bank to bank in your area of residence.

Other Features of the Scheme

- A Model Solar Village will be developed in each district of the country to act as a role model for adoption of rooftop solar in rural areas,
- Urban Local Bodies and Panchayati Raj Institutions shall also benefit from incentives for promoting RTS installations in their areas.
- The scheme provides a component for payment security for renewable energy service company (RESCO) based models as well as a fund for innovative projects in RTS.

Outcome and Impact

Through this scheme, the households will be able to save electricity bills as well as earn additional income through sale of surplus power to DISCOMs. A 3 kW system will be able to generate more than 300 units a month on an average for a household.

The proposed scheme will result in addition of 30 GW of solar capacity through rooftop solar in the residential sector, generating 1000 BUs of electricity and resulting in reduction of 720 million tonnes of CO_2 equivalent emissions over the 25-year lifetime of rooftop systems.

It is estimated that the scheme will create around 17 lakh direct jobs in manufacturing, logistics, supply chain, sales, installation, O&M and other services.

Availing Benefits of PM-Surya Ghar: Muft Bijli Yojana

The Government has launched a massive campaign since the launch of the scheme for raising awareness and generating applications from interested households. Households can register themselves on https://pmsuryaghar.gov.in to avail benefits under the scheme.

Executive Summary:

NRGY6 hereby expresses its interest in undertaking the **Solar Electricity Generation Agreement** project for your Roof Top Building with its financing partner and would like to submit this proposal for your detailed review. We have analyzed your requirements and believe we can provide the best-in- class solution for your needs.

Project Overview:

PV System Capacity (On-Grid)	Yearly Generation	Good Life of Solar Equipment	Performance Guarantee
			
2 .2 Kwh / 3.3 Kwh	Approx. 3613 Kwh/5420 Kwh	25 years	90 %

NRGY6 STANDARD BILL OF MATERIAL:

Bill of Quantities

S.N.	Major Items	Item Specifications	Makes
1	Solar Panels:	Mono-Crystalline PERC Half Cut Cells (540-550w/p)	ALMM Approved DCR
2	Inverter:	On-Grid Solar String Inverter, 3Ph, 415V, IP65	Tier I Suppliers only.
3	Mounting Structure:	For General Mounting: HDGI min. 90 Microns coating, as per wind speed IS 875 Part-3 Standards (160kmph) /For Customized Structures: MS Fabricated & painted using hollow sections as per design.	As per design
		Inverter Mounting Station (On Walls/MMS)	
		Hardware: SS 304 for Structure and Modules.	
4	Balance of System:	Electrical Items:	
		ACDB: IP65, AC Combiner box with SPD.	As per design
		Monitoring Logger & subscription (3 yrs) & Sim Card.	Along with Inverter
		Cables & Earthing:	
		DC Solar Cable: 4mm2 Copper UV protected, Type I	Polycab/Lapp/Havells/KEI
		AC LT Power Cables: 1.1KV Al conductor (Class-2), XLPE, PVC outer sheath Cable. Copper Flx. (Inverter to ACDB), All Arm. (ACDB to Client LT Panel).	
		Earthing Cable: 1C Copper, XLPE of respective sizes.	
		CPRI Tested Chemical Earthing, GI Electrode 2mts.	VNT/JMV/TruPower
		Lightning Arrestor: Conventional Copper Bonded 2Mtr rod with spikes.	
		GI Strip with saddles, sleeves and Insulators.	Standard
		(+/-) ive MC4 connecters	MC/Rio/Elcom
		Heavy Duty UPVC & Flexible Conduits with Bends	Astral/AKG
		Cable Ties: SS & UV protected.	Standard
		Cable Thimbles & Double Compression Brass Gland	Standard
		Fire Extinguisher 4KG and Danger Signages.	Standard

Note: Exact Bill of Quantities is prepared for the customer post order finalization.

Upfront Investment

STEP 1)
Need a Upfront Cheque for amount as detailed below, KYC of Customers, Mandatory Adhaar Card Name and Bank details to be same for Enrollment , Registering & Availment of Subsidy

COSTS)
a) cost of 2.2 kwh *Rs 1,65,000/-(Upfront cheque **Rs 1,18,200/-**)
b) cost of 3.3kwh *Rs 2,25, 324/-(Upfromt cheque **Rs1,71,324/-**)

UPNEDA

RTGS in favour of **NRGY6 PRIVATE LIMITED** Bank Details : Indian Overseas Bank, Punjabi Bagh Branch, New Delhi – 110026, IFSC Code : IOBA0000687, A/c No. 068702000004564

FOCUS ON YOUR CORE ACTIVITIES :

NRGY6 shall take care of your Documentation, for Approval / Installation of NET Meter & Registration on National Portal for Release of Subsidy to your Aadhaar linked Bank Account .

SUBSIDY ON SOLAR INSTALLATION FOR 2.2 KWH

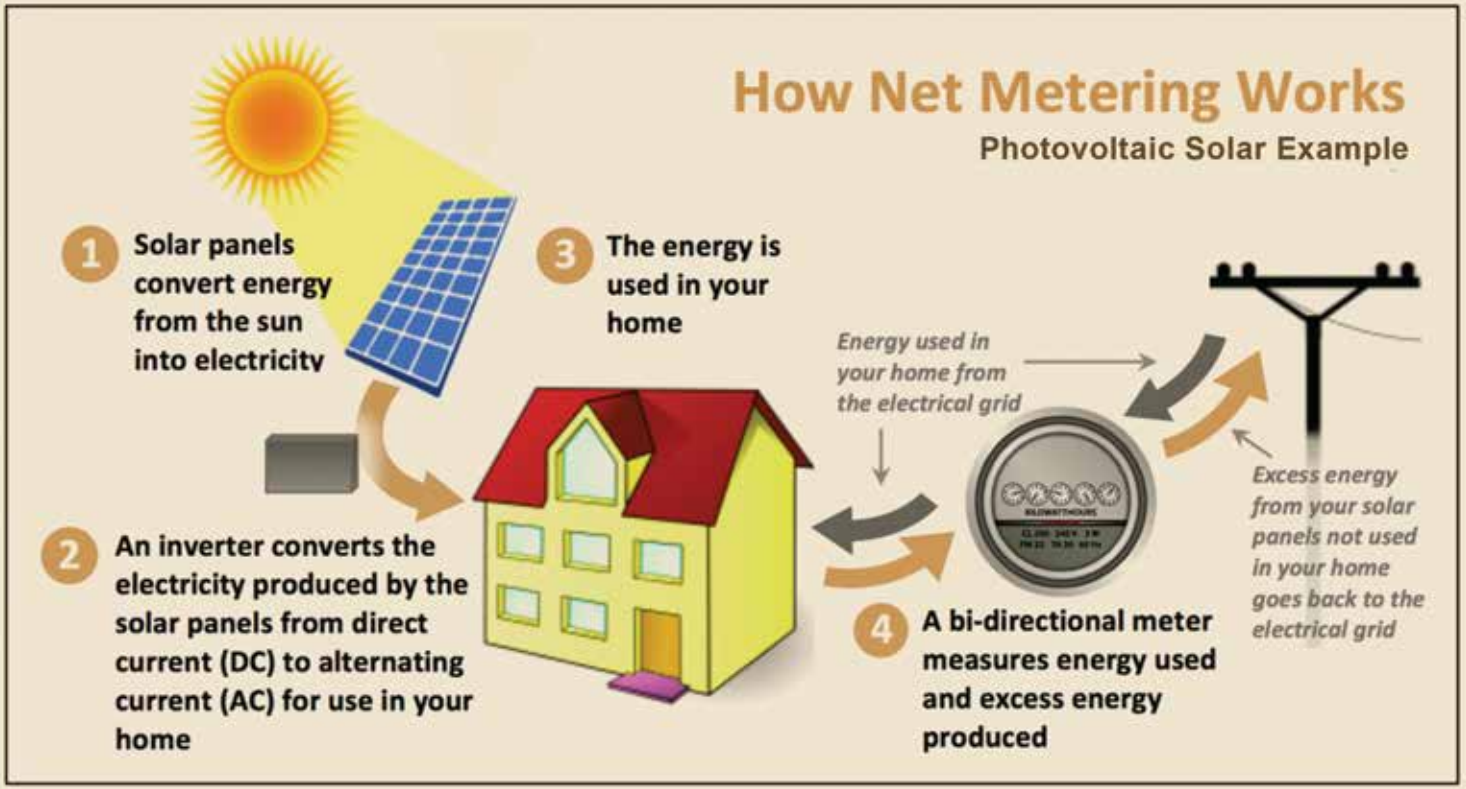
- Rs 63600 from Central Govt. & Rs 30000 from Uttar Pradesh Govt. **TOTAL Rs 93,600/-**

SUBSIDY ON SOLAR INSTALLATION FOR 3.3 KWH

- Rs 78000/- from Central Govt. & Rs 30000 from Uttar Pradesh Govt. **TOTAL Rs 1,08,000/-**

Subsidy for **2.2 kw is Rs 93600/-** and for **3.3kw is. Rs 1,08,000/-** will be credited to consumers adhar linked account directly and once it's is credited we will lodge the cheque of **Rs 46800/- for 2.2 kw and Rs 54,000/- UPFRONT** adjusted and clear our receivables against pending invoices raised while Solar installations done.

WORKING PRINCIPLE OF GRID CONNECTED SOLAR PROJECT



What Is Net Metering?

- Also known as Net energy metering (NEM), a net metering system is a metering and billing mechanism designed to monitor and record the flow of power between a solar energy system and the government grid. Solar meters are an important aspect in the design of privately-owned grid-tied solar energy systems.

- The net metering solar arrangement allows you to send unused surplus power to the grid instead of letting it get wasted. Also, it proves to be an economical alternative to an off-grid solar system framework where expensive solar batteries are used as a means of energy storage.

- The net metering concept is highly rewarding for Insititutional solar owners who receive energy credit for transferring excess solar electricity to the grid. Homeowners can use these credits to purchase electricity when their energy demand exceeds what the panels can provide.

How Does a Net Metering Solar System Work?

- A solar power system is tied to a utility grid via a solar meter and the main service panel or circuit. When the solar panels generate more power than required at the site, the power meter directs the unused solar energy to the grid. At this point, the meter is reversed from its usual direction. Thus, a bidirectional meter for solar is required to facilitate the net metering arrangement.

- Bi-directional means the meter works in both directions (export and import of power). It measures the units of grid electricity purchased (when on-site power demand exceeds the on-site solar energy output). A bidirectional solar energy meter also measures the transfer of surplus electricity to the grid. In the latter case, your electric meter runs backwards, even to the point of offsetting your grid withdrawals.

Method of Billing

The customer settles the "net" of inflow and outflow transactions. If your grid exports are higher in a month, you may see a notably lower, even negligible, electric bill.

For example:

- Rate of electricity exported to the grid during the day: **Rs. 100**
- Rate for electricity imported from the grid at night: **Rs. 120**
- Net bill for the day: **Rs. 20**

With a net metering solar system, you receive a credit to your bill for every unit of solar electricity transferred to the grid. When your solar generation is reduced or zero, you can pay for your grid withdrawals using the banked solar credits. You can count on your bidirectional electric meter to maintain an accurate record of this energy exchange every month.

It's important to note that each state's net metering regulations differ. Consumers are advised to reach out to the local DISCOM company for complete details. These include the net metering application process, the tariff rates for exports and imports, and the type of net meter to be installed.

The Benefit of Net Metering System

The net metering policy increases the monetary advantages of solar energy. An electric meter for solar panels eliminates the need to buy expensive solar batteries for power storage. This makes solar energy systems more affordable, promoting sustainable energy use among residential and commercial consumers. Net metering is beneficial for both consumers and power companies in many ways, such as:

- **Reduced Cost of Solar Systems:** As a solar system owner, you can opt for a solar meter connection to put the extra solar electricity to good use. This prevents the need for investing in costly solar batteries to store surplus solar energy. You only pay your utility company a nominal fee to install a bidirectional solar meter.

- **Financial Rewards:** Metering your solar energy system amplifies your savings on the monthly utility bills. Solar credits become a passive income source, allowing you to purchase grid electricity when required. These financial rewards continue for the entire lifespan of a rooftop solar system (i.e., 25 years).

- **Low Maintenance Cost:** Unlike solar batteries with high maintenance and replacement costs, a net metering system is a cost-effective option.

- **Social Contribution:** The net metering system is beneficial for the grid. As more and more customers adopt distributed solar power systems, their dependence on the grid reduces. As a result, the grid becomes more reliable and resilient to meet the customers' energy needs. Also, the problems of transmission losses, outages, and congestion are reduced.

- **Environmental Benefits:** Net metering also promotes the incredible environmental benefits of solar energy. Greenhouse gas emissions and air pollution are reduced as solar power displaces the electricity generated through conventional sources. By transferring excess solar power to the grid via net metering, consumers can help lower the burden of meeting energy demands on natural gas or coal plants.

General Mounting Arrangements: Included in Above Cost.

Designed & Engineered HDGI Mounting Structures designed to withstand wind speeds up to 160kmph.




Option I:
RCC Rooftops (Non-Penetrative)
Space Needed: 80-90 sq. ft./KW

Option II:
RCC Roof (With Civil Foundations)
Space Needed: 70-80 sq. ft./KW

Option III:
Shed (South/East-West Facing)
Space Needed: 60-70 sq. ft./KW

Option IV:
Shed (North Facing)
Space Needed: 70-80 sq. ft./KW

Custom Mountin Solutions: At additional cost mentioned along with options.

Custom Designed & Engineered Structures **as per Site requirements.**

Option I:

Super Structure
(With/Without GI Sheet)
Ground Clearance: Customizable up to 3Mtr.
Approx. Cost: Rs. 12500/KW*

Option II:

Elevated Structure
(Front 5ft)
Ground Clearance: Front: 2Mtrs I Rear: 3Mtrs
Approx. Cost: Rs. 3500/KW*

Option III:

Solar Pergola's
Space Needed: 60-70 sq. ft./KW
Approx. Cost: Rs. 24,500/KW*

Option IV:

Car/Bike Park
Space Needed: 60-70 sq. ft./KW
Approx. Cost: Rs. 12,500/KW*

Choose from Our Standard Residential Solar System Sizes:

Cost sheet for Uttar Pradesh Solar Installation						
Kilowatt	3.3	5	8	10	12	15
MODEL	Nrgy6 (3.3 KW)	NRGY6 (5 KW)	NRGY6 (8 KW)	NRGY6 (10 KW)	NRGY6 (12 KW)	NRGY6 (15 KW)
Panels (DCR 540+ W/p)	6 Nos.	9 Nos.	15 Nos.	19 Nos.	22 Nos.	28 Nos.
Base Cost (Rupees per KW) *	60,000	55,000	52,725	52,720	47,000	47,000
Total Cost Rupees:	1,98,000	2,75,000	4,21,800	5,27,200	5,64,000	7,05,000
GST Rupees @ 13.8%	27324	37950	58208.4	72753.6	77832	97290
Net Cost Rupees:	2,25,324	3,12,950	4,80,008	5,99,954	6,41,832	8,02,290
National Solar Rooftop Subsidy Rs:	78,000	78,000	78,000	78,000	78,000	78,000
State subsidy (Uttar Pradesh) Rs:	30,000	30,000	30,000	30,000	30,000	30,000
Final Cost to Customer (Incl GST):	1,17,324	2,04,950	3,72,008	4,91,954	5,33,832	6,94,290
Cost Rupees per Kw	35553	40990	46501	49195	44486	46286
Annual Savings Rupees @7.5/unit (4.5 Kwh/Day)	40,652	61,594	98,550	1,23,188	1,47,825	1,84,781
Payback Periods in Years*:	2.9	3.3	3.8	4	3.6	3.8

*** Subsidy as applicable shall be remitted to customer account though the national solar portal.**

Choose from Our Standard Residential Solar System Sizes:

Cost sheet for New Delhi Solar Installation						
Kilowatt	3.3	5	8	10	12	15
MODEL	Nrgy6 (3.3 KW)	NRGY6 (5 KW)	NRGY6 (8 KW)	NRGY6 (10 KW)	NRGY6 (12 KW)	NRGY6 (15 KW)
Panels (DCR 540+ W/p)	6 Nos.	9 Nos.	15 Nos.	19 Nos.	22 Nos.	28 Nos.
Base Cost (Rupees per KW) *	60,000	55,000	52,725	52,720	47,000	47,000
Total Cost Rupees:	1,98,000	2,75,000	4,21,800	5,27,200	5,64,000	7,05,000
GST Rupees @ 13.8%	27324	37950	58208.4	72753.6	77832	97290
Net Cost Rupees:	2,25,324	3,12,950	4,80,008	5,99,954	6,41,832	8,02,290
National Solar Rooftop Subsidy Rs:	78,000	78,000	78,000	78,000	78,000	78,000
State subsidy (New Delhi) Rs:	10,000	10,000	10,000	10,000	10,000	10,000
Final Cost to Customer (Incl GST):	1,37,324	2,24,950	3,92,008	5,11,954	5,53,832	7,14,290
Cost Rupees per Kw	41613	44990	49001	51195	46153	47619
Annual Savings Rupees @7.5/unit (4.5 Kwh/Day)	40,652	61,594	98,550	1,23,188	1,47,825	1,84,781
Payback Periods in Years*:	3.4	3.7	4	4.2	3.7	3.9

Frequently Asked Questions

- Does net metering ensure power supply during an outage?
  No, a solar meter is designed to shut off your solar energy system when the grid goes down. This is important to prevent the transfer of electricity from your solar panels, which can electrocute the linemen working on the grid. You can avoid power outages by adding solar batteries to your grid-connected solar system design.

- Can I sell surplus electricity generated by the solar panels to the grid?
  Grid-tied solar systems are designed to transfer unused solar electricity to the grid. The net energy metering requires the metre to measure this power export and add solar credit to the utility bill. The solar credits are offered per the tariff rates outlined by your power distribution company.

- Can I use any standard inverter for net metering?
  2No. Solar panels must be paired with the size of a solar inverter. This inverter is particularly designed to efficiently convert the DC power obtained from solar panels into AC electricity. Only AC power is suitable for household purposes and grid transfers.

- What type of net meter should I install for my solar system?
  it's important to obtain the prescribed guidelines from your state DISCOM company on net meter connection. In several states, consumers must install two meters to connect their solar system to the grid. Many DISCOM companies provide bidirectional meters for this purpose.

- Will the monthly bill show my grid transfers and withdrawals?
  A solar meter tracks the outflow and inflow of power and reflects the same on your monthly bill. The consumer must pay the net difference between the two types of transactions.

Contact US

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M/S NRGY6 (P) LTD

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