



**SUBSIDY SCHEME FOR GRID CONNECTED SOLAR ROOFTOP PROJECT
IN ASSAM
UNDER THE 14 MW RESCO AND CAPEX MODEL**

Submitted By:
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1. ABOUT THE PROGRAM

With the massive target of the Solar Rooftop in the state of Assam, the state Government has recently launched a rooftop solar subsidy program of 14 MW capacity through Assam Energy Development Energy (AEDA). Firstgreen has been selected as successful bidder for implementation of the proposed solar rooftop program in the state of Assam.

Under the CAPEX scheme the consumer has to pay only 30% of the project cost and balance 70% is paid directly by AEDA as subsidy for the solar system. Also we are providing 5 year free operation and maintenance of the project.

Under the RESCO model there is no upfront payment by the consumer and a Power Purchase Agreement (PPA) has to be signed at Rs. 3.43/ KWh, fixed for 25 Year.

This is the lifetime opportunity to reduce your electricity bill by more than 50% without any upfront investment at your end.

2. ABOUT FIRSTGREEN

Firstgreen Consulting is a leading solar PV EPC service provider. We have executed over 5 MW of solar rooftop systems on pan India basis. We have a team of highly qualified and experienced professionals of the solar industry. We have extensive experience in solar PV ranging from kW scale project to MW scale solar project. Our activities in Solar Projects- have been related to identification of site, land procurement, assessment of power evacuation feasibility, technology selection, detailed engineering design, finalizing contracts for supply and implementation, Project identification and development support, etc. We also provide our services during implementation phase (Owner's Engineer), as quality management, site management, expediting and staff training

Key Strengths

1. Successfully handled over 500 MW of solar advisory projects to various projects to some of the leading solar project developers.

2. In-house capacity of conducting the detailed engineering and design of solar power projects with strong team of over 15 design experts.
3. Over 5 years of experience in design, engineering and project management of large solar power projects as well as solar rooftop projects.
4. Project management expertise and strong technological knowhow on handling the solar power projects.
5. Successful track record of executing large solar rooftop project up to capacity of 3 MW under challenging climatic conditions.
6. Firstgreen blog is one of the largest technological know-how resources to solar professionals (www.firstgreen.co/blog). Our daily footfall is over 11000.
7. MNRE Channel partnership for new entrepreneurs. Firstgreen is also a SETNET partner to National Institute of Solar Energy (NISE) for conducting the solar PV training programs to the solar professionals.
8. Excellent relationship with the financial institutions and Banks for arranging the financial closure to our clients.

3. System Overview

This Project is under the AEDA Roof Top SPV program as per the Rate Contract issued by AEDA vides **No: AEDA/455/2016/26 dated 22.08.2017**. The Project confirm to the guidelines of the AEDA SPV program.

The proposed 100 KWp Solar Grid Connect Power Plant at factory roofs will consist of crystalline solar modules arranged in series and parallel combination meeting PCU/Inverter voltage and current requirement.

The DC output from the solar Panel is directly converted to Grid Compatible AC Output using Grid Tied String Inverters which is synchronized with the LT side of the Distribution Panel. All the energy generated through solar panels will be fed to the building load on real time basis as it is a Grid Tied system.

4. AEDA CAPEX SUBSIDY SCHEME

Capacity	100 kW-500 kW
AEDA approved rate as per Rate Contract	Rs 51.68/Wp
AEDA Subsidy*	Rs 36.17/Wp
Beneficiary Cost/Wp	Rs 15.51/Wp

Note: - Subsidy is available to institutions registered as Non for Profit

5. AEDA RESCO SUBSIDY SCHEME

Capacity	100 kW-500 kW
AEDA approved rate as per Rate Contract	Rs 3.43 per kWp

6. SPV POWER PLANT OUTLOOK

PV Module Type	Poly Crystalline
Tilt Angle	As per Site
Performance Ratio	75% (1 st Year)
Inverters	String Inverters
Project Completion Time	2 - 3 Months

7. PRICE SCHEDULE

S. No.	Description	System Price (INR)
1	Design , Engineering and Supply 100 KWp Rooftop PV Plant for Captive Consumption	Rs. 5,168,000
2	Cost after AEDA Subsidy 70% (Rs3,617,600)	Rs 1,550,400

Note:-The additional cost payable by beneficiary.

8. BILL OF QUANTITY

S.No.	Component	Specification	Make
1	Modules-320Wp	As per Design	Vikram Solar/Sova Solar
2	Inverters	As per Design	Delta/Phocos/Fronius
3	Monitoring System	1 Set	Delta/Phocos/Fronius
4	Mounting System	1 set	GI
5.	DC Cables	As per Design	Siechem Technologies
6.	AC Cables	As per Design	Polycab
7.	Lugs and Glands	As per Design	Reputed Make
8.	ACDB for Protection purposes	As per Design	Onexis Automation
9.	Earthing	As per Design	Traditional/JMV
10.	Cable Tray	As per Design	Armored Flexi/GI
11.	Lighting Arrestor	1 set	Cu Traditional

Note: - Cable Length and BOS mentioned above are used as per actual site conditions. This BOQ may be used for reference but actual BOQ may differ as per the detailed engineering.

9. TERMS & CONDITIONS

Price Basis: The quoted price is for at site, including Freight & Transit Insurance.

Tax & Duties: Duties and Taxes are inclusive.

System Warranty: Complete PV System shall be warranted for a period of 25 years from the date of commissioning. In-addition, Solar PV Modules shall carry a warranty of 25 years from the date of supply by manufacturer and the same would be passed on to the customer at the end of 5 years. Further Solar PV Modules shall carry a performance warranty of guaranteed output of 90% of the rated output for 10 years and 80% for the next 15 years.

10. Payment Terms for CAPEX

S.NO	Milestone	Payment (INR)
1.	Issue of Purchase Order – 30%	465120
3.	Supply of Modules – 40%	620160
4.	Supply of Inverter – 20%	310080
5.	Power Injection to LT – 10%	155040

11. Delivery and Execution Period

2 - 3 months as per submitted schedule subject to force majeure conditions from the date of technically and commercially clear order along with advance & handing over the site to us and AEDA approval.

12. Force Majeure

Standard Force Majeure Conditions apply for this offer and resultant Order.

13. Assumptions Made

- Power from Solar Plant is being fed to existing LT Panels (415V, 3 Phase).
- Building Load is greater than Units generated by Solar Power.
- The power generation would be subject to grid availability during solar hours and in the absence of grid power the plant does not work as per APDCL guidance.

14. Scope of work

For Firstgreen Consulting Pvt Ltd

- Design, Engineering, Procurement & Supply of Solar power system as per specification & BOM given in our offer.
- Installation & Commissioning of Solar Power Plant up to LT Panel including synchronization with Grid supply.
- Supply of Solar Meter, Net Meter are in the scope of supplier while all fees and deposits and electrical components required for Net Metering would be paid by customer
- Providing after sales service during warranty period.

For Customer

- The Design, Fabrication and Installation of the Super Structure will be in the scope of the client.
- Providing shadow free area on roof on each Roof for installation of solar modules as proposed in layout
- Providing safe Storage place for Material during installation & Commissioning period
- Providing water and temporary electricity connection during execution and CMC period.
- Providing PC and Internet connection for online monitoring of Plant Performance.
- Customer will provide necessary documentation for Net Metering.
- The regular cleaning of SPV during 5 years CMC period.

15. Offer Validity

The offer is valid for your acceptance for a period of 30 days from the date of submission of Bid.

16. Online Registration

For online registration visit on (<http://www.firstgreen.co/aeda-registration/>)

Or [Click Here](#) .



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CAPEX MODEL



Buildings In Guwahati



Monthly Bill
Amount (Rs.)
100000



Monthly Unit
Consumed
Approx.
12500



Existing Electricity
Tariff
8



Recommended
Solar System Size
100kW



Solar Generation
per Month
Approx.
12500 Unit



Monthly Bill
With Solar
0



Monthly
Shaving(Rs.)
100000



Solar System Cost
(Rs.)
1600000



Payback Period
16 Month



Return On
Investment
30-40 % p.a



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RESCO MODEL



Buildings In Guwahati



Monthly Bill
Amount (Rs.)
100000



Monthly Unit
Consumed
Approx.
12500



Existing Electricity
Tariff
8



Recommended
Solar System Size
100kW



Solar Generation
per Month
Approx.
12500 Unit



Monthly Bill
(Solar)
42875



Monthly
Shaving(Rs.)
57125



Solar Electricity
Tarrif (Rs./KWh)
3.43



PPA Agreement
25 Year



Reconciliation
57.2