Shine Brighter with Solar Energy

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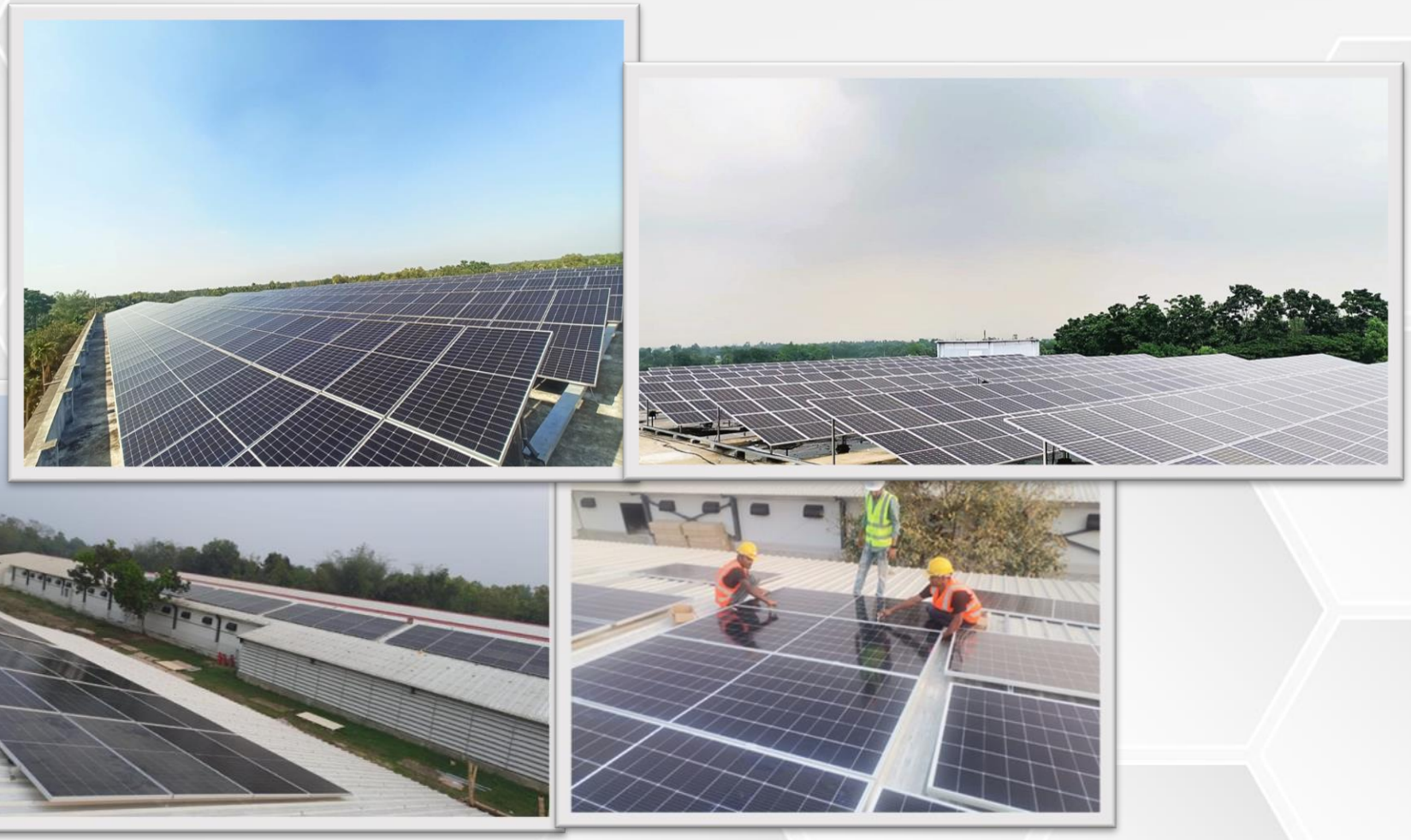

About Us:

Gtech Infrastructure Ltd. is one of the leading professionals in

- Solar Engineering,
- Civil Constructions Developer
- Dredging
- Equipment & Material Supplier,
- Building Infrastructures of roads highways, railways & bridges &
- Renowned Health Equipment Supplier & Service Provider

We specialize in the designing and development of the solar generated (photovoltaic or PV) electricity projects, infrastructure development and civil construction projects as well as specialize in supplying medical equipment. Gtech Infrastructure Limited has

- Dedicated team who assist, guide, support & advice clients
- In house Engineering & Design Team
- Commissioning & Installation Team
- Financing Solution Team

We are capable to perform huge range of Turnkey and non-Turnkey basis projects. We have successfully completed many projects of Government/ Nongovernment/ Multinational companies nationwide

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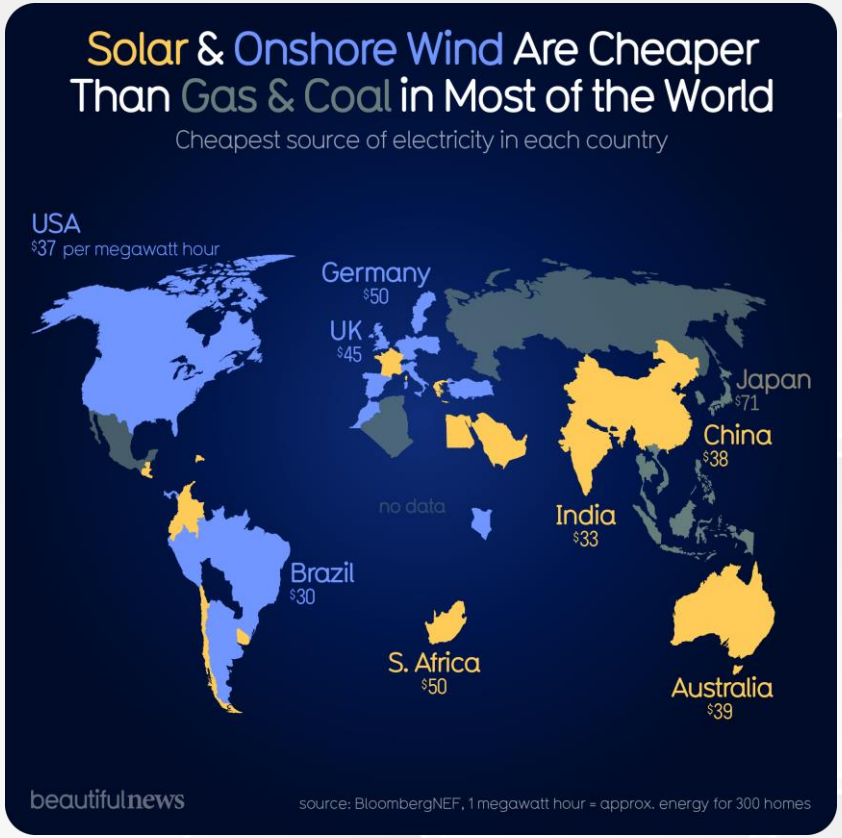
What is Solar Energy?

- Solar energy is a type of renewable energy that is generated by the sun's light and heat.
- Solar energy can be harnessed and converted into electricity through solar photovoltaic (PV) modules using (photo = light, voltaic = electricity).

Why use Solar Energy?

- Solar energy is abundant, clean, and sustainable.
- Solar energy can be used for a wide range of applications, from powering homes and businesses to providing electricity for remote areas and off-grid communities.
- Solar energy is becoming increasingly cost-competitive with traditional fossil fuels, rising gas and electricity prices, making it an attractive option for energy production and consumption.



Benefits of Rooftop Solar System

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Owing to the favorable geographical location, Bangladesh captures a good amount of solar radiation per day. The proper utilization of this solar energy may reduce the country's energy demand from fossil fuel to a great extent. Below are several reasons why to invest in solar energy

- ❑ Abundant Energy
- ❑ Renewable
- ❑ Clean Energy
- ❑ Sustainability
- ❑ Lower Carbon Emission
- ❑ Lower Production Cost
- ❑ Lower Cost of Electricity
- ❑ Minimum Maintenance
- ❑ Reducing Dependency from Fossil Fuel

A 1 MW Rooftop Solar System will have Carbon Emission Reduction by **24,265 Ton** over 20 Years Period. It will also help to quantify equivalent offsets:

- ❑ **7,465,705 Gallons** of Gasoline Consumed
- ❑ **288,438 Tree seedlings** grown for 10 years
- ❑ **40,430.8 barrels of oil** Consumed
- ❑ **526 Vehicles** off the road

Solar Rooftop System Installation Method

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Survey, Design and Documentation

01

- Site layout
- Existing roof purlin profile
- Cable routing

Required Tools Arrangement

02

- Drill set
- Impact wrench
- Torque wrench
- Inclinometer

Installation

03

- Life Line Installation
- Survey and Marking
- Fixing of L clamp
- Fixing of Rails/ Purlins
- Lifting Modules
- Fixing Modules:
- Final Inspection
- Final outlook after complete installation

Pull Out Test

04

- Checking roof top resistance by generating upload force on the tinsel profile with man power
- The pull out test should be done for L connectors anchored to the roof purlins and L connectors directly anchored to the roof sheet.
- The applied load should be checked for each test. This load should be done with two, three or four workers.

Installation Process of Gtech

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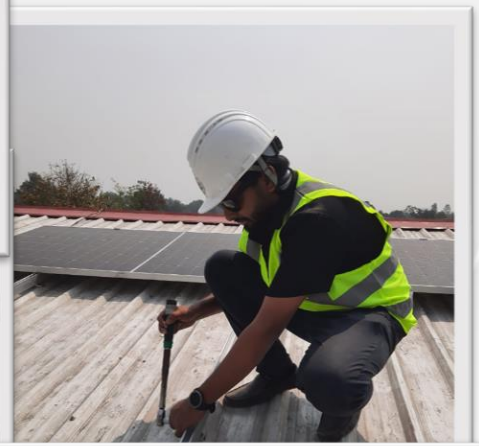







Ongoing Projects:

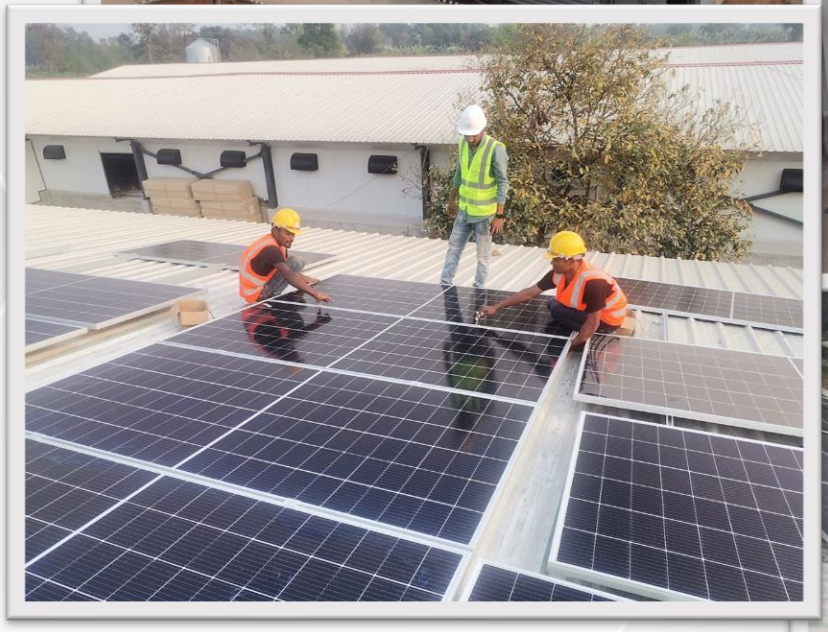
Some of Gtech Infrastructure's ongoing Rooftop Solar Projects are:

- Multifabs Limited- 360.5 kWp Rooftop Solar System.
- Habitus Fashion Limited (Fortis Group)- 1,210.0 kWp Rooftop Solar System
- Quattro Fashion Limited (Fortis Group)- 292.0 kWp Rooftop Solar System
- Fashionit Company Limited- 156.4 kWp Rooftop Solar System
- Purbani Fashion Limited (Purbani Group)- 130.5 kWp Rooftop Solar System
- BIDI Apparels (Ritzy Group)- 799.7 kWp Rooftop Solar System

Recently Completed Projects

Gtech Infrastructure has successfully completed installation of:

- Oasis Services Agro (Oasis Group)- 335 kWp Rooftop Solar System.
- Narangi (Agro) Farm Ltd. (Unit-1) (Oasis Group)- 335 kWp Rooftop Solar System and
- Narangi (Agro) Farm Ltd. (Unit-2) (Oasis Group)- 335 kWp Rooftop Solar System



Recently Completed Projects

Gtech Infrastructure has successfully completed installation of:

- 250 kWp Grid-tied Solar Rooftop System installation MK Footwear Ltd, Mawna, Gazipur.

Recently Completed Projects

Gtech Infrastructure has successfully completed installation of:

- Aptech Industrial Park- 1.50 MWp Rooftop Solar System.

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Benefits of Rooftop Solar System for factories:

- Significantly reduces operating cost by reducing electricity cost. Solar power is abundant and cheaper.
- Due to net metering, any excess power generated from PV modules on days off are transferred to the grid which in turn reduces overall electricity cost additionally.
- Cheap and easy to install
- Low cost green financing opportunity from government
- Low maintenance costs
- Reduces carbon impact on the environment

Helioscope: Design Software for C&I Solar

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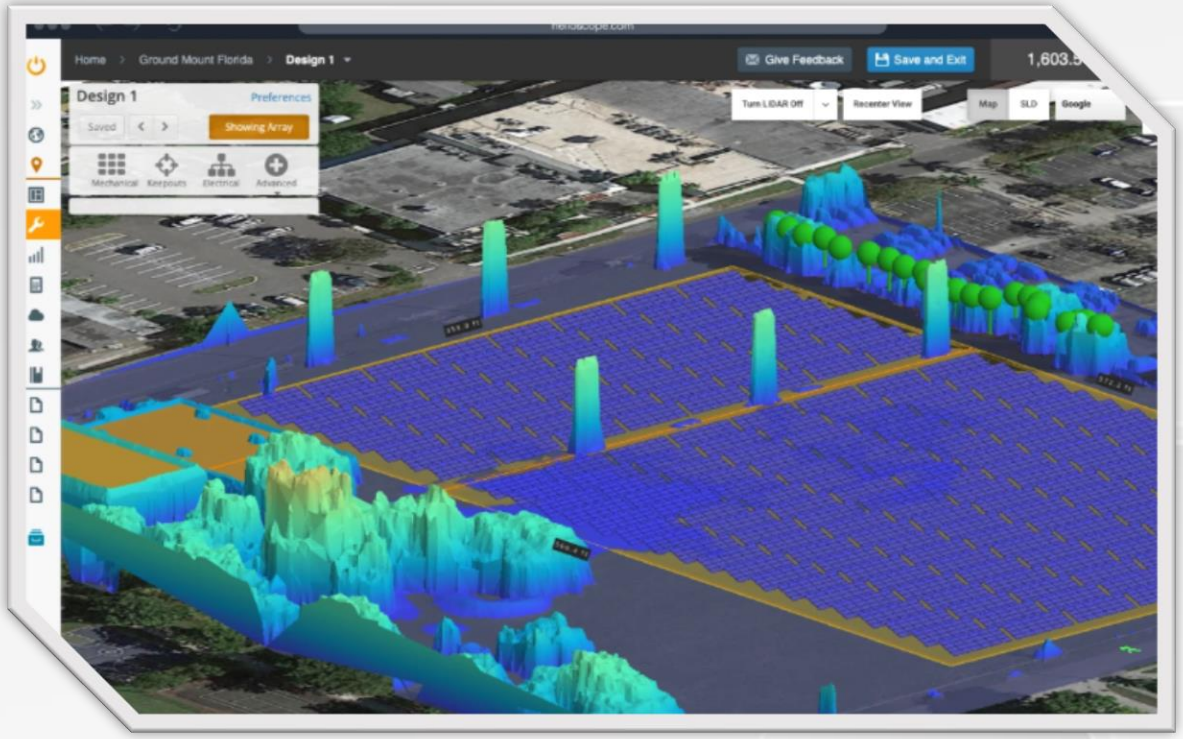
- Interactive 3d mechanical design/ CAD drawing & Electrical configuration
- Make design changes in real-time
- Ensures accuracy and get to value creation faster
- Streamlining every process from planning to installation
- Uses advanced energy simulation engine to simulate large, complex arrays including detailed shading analysis
- Creating obstructions & keep outs to meet compliance issues that are imposed on Industries
- Satellite-based weather data includes Global horizontal irradiation, horizontal diffuse irradiation, temperature, wind velocity, link turbidity & relative humidity etc.
- Customizing Financial Analysis for maximum ROI



Importance of using proper materials for installation

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PV Module

A module with higher efficiency can generate more power. Module should be chosen carefully as per rooftop space, load, weather and pricing. It is crucial to choose a Tier-1 PV module with high ranking

Inverter

Inverter should be chosen based on reliability, efficiency, Solar PV array segmentation and shading characteristics, Space constraints and environmental conditions. It is crucial to choose a Tier-1 PV module with high ranking .

Mounting System

Choosing a proper mounting system is extremely important for PV systems' optimum efficiency. Considerations include whether the roof is flat or pitched at an angle; whether or not the roof can be penetrated; roofing materials; and locations of structural support.

Wiring

The electrical wires and cables connecting the inverters to the building switch gear have to be chosen and sized to minimize losses and ensure electrical safety. The wires need to be rated to withstand the high ultraviolet radiation and heat they will be exposed to on the roof.

Cleaning System

Dirty panels mean power loss. Grime and debris reduce the ability of the solar array to perform at full capacity. It is imperative to set up a proper cleaning system to increase the efficiency of the system and also the system's lifespan.

Product Partners

BloombergNEF is a leading provider of forward-thinking primary research and analysis on the trends driving the transition to a lower-carbon economy. Bloomberg rates panels based on the following criteria:

- Annual Module Production Capacity
- Technology
- Research & Development Facility
- Strategy and History
- Pricing
- Service and Support

Gtech strives to provide best quality products to clients to ensure maximum efficiency and longevity.

Net-metering Policy

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Net-metering is:

- A policy approach designed to encourage distributed renewable energy development
- Utility customers generate their own electricity from renewable sources and use the electricity produced to offset the amount of energy they draw from the utility grid.
- Any excess generation can be fed into the grid.

Why use Net-metering?

- Encourage self-consumption of the electricity produced from solar energy to reduce dependency on the grid power;
- Reduce electricity bill of customers by lowering the use of electricity from the grid and securing payment made for the electricity fed into the grid in the event of surplus generation;
- Support the utility to allow the consumers interconnect with the distribution network;
- Contribute to the reduction of greenhouse gas emissions by promoting electricity generation from renewables while lessening the country's dependence on costly imported fossil fuels.

1MW Rooftop Solar Financial Metrics

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Total cost of 1 MW Rooftop Solar Power System is approximately BDT 43,703,110. Required roof area is 80,000 sft.

- Debt: Equity Ratio: 80:20
- Loan Term: 5 Years
- Interest Rate: 5%
- IRR: 35.71%
- ROI: 23.64 %
- Pay Back Period: 4.5 Years
- Levelized Cost of Energy: BDT 4.2/ Unit
- Total savings in 20 years: BDT 262,761,930

Years	Annual Generation (kWh) (0.5% reduction per year)	REB Unit Rate (BDT/kWHr) (3% escalation per year)	REB Cost (BDT)	Levelised Cost Rate (BDT/ kWHr)	LCOE cost (BDT)	Difference (BDT)
1	1400000	10.50	14700000	4.2	5880000	8820000
2	1393000	10.82	15065295	4.2	5850600	9214695
3	1386035	11.14	15439668	4.2	5821347	9618321
4	1379105	11.47	15823343	4.2	5792240	10031103
5	1372209	11.82	16216553	4.2	5763279	10453274
6	1365348	12.17	16619535	4.2	5734463	10885072
7	1358522	12.54	17032530	4.2	5705790	11326740
8	1351729	12.91	17455789	4.2	5677261	11778527
9	1344970	13.30	17889565	4.2	5648875	12240690
10	1338245	13.70	18334121	4.2	5620631	12713490
11	1331554	14.11	18789723	4.2	5592528	13197196
12	1324896	14.53	19256648	4.2	5564565	13692083
13	1318272	14.97	19735176	4.2	5536742	14198434
14	1311681	15.42	20225595	4.2	5509058	14716537
15	1305122	15.88	20728201	4.2	5481513	15246688
16	1298597	16.36	21243297	4.2	5454106	15789191
17	1292104	16.85	21771193	4.2	5426835	16344358
18	1285643	17.35	22312207	4.2	5399701	16912506
19	1279215	17.88	22866665	4.2	5372702	17493963
20	1272819	18.41	23434902	4.2	5345839	18089063
TOTAL SAVING IN 20 YEARS						262,761,930
In Words: Twenty Six Crore Twenty Seven Lac Sixty One Thousand Nine Hundred and Thirty Taka Only						

Low Cost Green Financing Opportunities

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Green Transformation Fund (GTF)

Bangladesh Bank has introduced €200 million Fund along with the existing US$200 million to set up environment-friendly infrastructures. Three types of financing on long term basis will be admissible to all manufacturing industrial enterprises for

- importing of environment-friendly
- energy-efficient or
- green capital machinery and accessories

Green Refinance Scheme

– Available for both CAPEX & OPEX

- Debt: Equity Ratio is 80 : 20

- Rate 5-6% with tenure from 5 to 8 years

Technology Development Fund (TDF)

-Available for CAPEX

-Debt: Equity Ratio is 70 : 30

-Rate 5-6% with tenure from 5 to 8 years

SREUP

-Available for CAPEX

-Only export oriented RMGs are eligible

-Pre-financing scheme

- Rate 5% with tenure 5 years tenure and 20% grant

Recent Signing

Signing Ceremony with Purbani Group

Some of our Rooftop Solar Projects

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Some of our IPP Projects:

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- BEXIMCO Teesta Solar Park- 200 MW AC
- Intraco Solar Power Limited – 30 MW AC
- Spectra Solar Power Plant – 35 MW AC

Gtech Clients

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Teesta Solar Park (IPP) 200 MW AC

Intraco Solar Power Limited (IPP) 30 MW AC

Spectra Solar Power Plant (IPP) 35 MW AC

Sympa Solar PowerLtd. (IPP) 8 MW AC

Unit 1 and Unit 2 of 1.15 & 4.65 MWP rooftop solar

Big Boss Corporation 1.5 MWp rooftop solar

Purbani Fashion Ltd. 130.5 kWP rooftop solar

Two factories of 278 kWp & 1,147 kWp

Meghna Group 500 kWp rooftop solar

Jamalpur Cold Storage 260 kWp rooftop solar

Ariyan Socks Industries Ltd 170 kWp rooftop solar

Vincen Gtech (Mini Grid) 249 kWp rooftop solar

6 kWp rooftop solar

New Tex Group 500 kWp rooftop solar

One factory of 799.7 kWp (Bidi Apparels)

Vertex Group 300 kWp rooftop solar

Royal Tulip Sea Pearl Beach Resort 200 kWp rooftop solar

Four factories of 335 kWp rooftop solar each and one of 586.7 kWp

360 kWP rooftop solar

30 kWp rooftop solar

Supti Sweaters Ltd. 200 kWp rooftop solar

Barind Multipurpose Development Authority (BMDA) 60 Pump, 240 kW Solar Irrigation

50kWp Hybrid Solar Power Plant (Rooftop)

37 kWp rooftop solar

25 kWp rooftop solar

Comilla Palli Bidyut Shamity-2 21.0 kWp Solar Charging Station.

3 kWp rooftop solar

7 kWp rooftop solar

Southern Renewable Energy 16 kWp rooftop solar

Mampower (Superior Builders & Engineers) 42 kWp rooftop solar

36 kWp rooftop solar project

Rural Energy & Development Initiative 40 kWp rooftop solar

Two factories of 400 & 135 kWp rooftop solar

NK Sweaters Limited . 650 kWP rooftop solar

Lavender Garment Ltd. 320 kWP rooftop solar

Concord Real Estate 7.5 kWp rooftop solar

Narsingdi PBS-2 (Rooftop) 3hp Solar pump

6 kWp rooftop solar

Fashionit Company Ltd.156.4 kWP rooftop solar

MK Footwear Ltd 250 kWp rooftop solar

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The power industry is transforming at a high speed. Our team brings proven track records, understanding of the technology and experience in successful implementation.

We are the best in class for what needs to be done and how it is done, essentially delivering solutions to our clients at highest value.

THANK YOU

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Delivering Safe & Reliable Solutions