



# THE PRODUCTES AND PROCESS

**Techno Green Solar** supplies, install and operates & maintain the solar power system. The company is offering CAPEX/DEFFERED CAPEX and OPEX/PPA MODELS. TGS is also the authorized Distributor of **Sunbond Energy Solar Modules (ISO 9001:2016 Certified).** Who has set up a 250MW MBB State- of – the art fully automatic solar PV Module Manufacturing Facality in Morbi, Gujarat.

### **Mission**

Techno Green Solar's mission is to become market leader of solar power solutions offering the highest quality products and customer service while saving customer money and making positive contributions to our environment.

# Management

Techno Green Solar is owned by young professional with rich experience in operations, banking, Engineering and market field. To become the market leader of solar power solutions. To quickly gain market penetrations within the first three years. To develop a customer-centric organization based on cutting edge technology.

# **Keys To Success**

Techno Green Solar has identified three key to success that help the company grow into a mature market leader. Providing cutting edge, reliable and simple to install and maintain solar power system. Broadening the market of solar into a mainstream energy source. Designing and implementing strict financial controls.

# The Products And Process

Techno Green Solar, will supply, install and operate & maintain solar power system, The company is offering pay as you go model (Chagres per kWp Unit). We perform a site survey to check the viability of a solar system. Determine solar power generation capacity and equipment selection. Design and install the solar system. Setup net metering when viable.

Maintain production of the solar system through equipment monitoring and maintenance.

3

**ENGINEERING-** On acceptance of feasibility report we prepare detailed engineering design and BOM cost estimate, obtain necessary approvals. If required we help you arrange necessary financial assistance (loans/subsidy).

<u>Deliverable- Engineering Design, Electrical Schematic, Layout Plan, BOS Design, BOM, Detailed Cost Estimate, Project Plan with fund Flow, Regularity Approvals.</u>

**PROCUREMENT-** We help you identify optimum sources- technically and financially, negotiate best prices and terms, arrange appropriate warranty and support terms, arrange just-in time delivery and prepare construction contracts—while keeping overhead minimum.

<u>Deliverable- Sourcing, Purchase Orders, Constructions Contracts.</u>

**CONSTRUCTION-** During construction phase we supervise construction to ensure plant performance complying to design, conduct inspection of material at source and commission plant. We also arrange inspection by DISCOM/other parties as per interconnection/financial arrangements. Finally we coordinate with DISCOM for interconnection and metering.

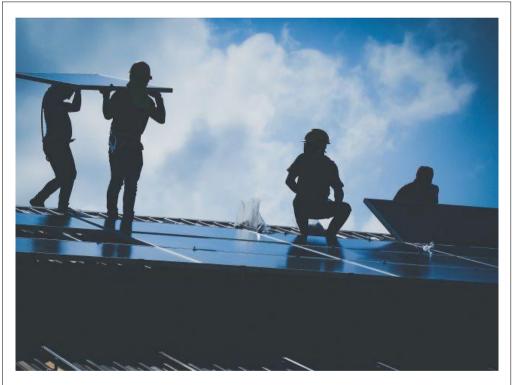
**Deliverable- Fully Functional Plant** 

**OPERATION & MAINTAINANCE-** PV Solar systems are capital intensive projects with expected life of 25 years. To make the best use to get optimum ROI proper O&M of the system over life time is crucial. We train you/ your rep for the same. Or, if required we can arrange third party maintenance.

Deliverable- O&M Training, AMC Contracts















#### WHY SOLAR IS IMPORTANT?

India is density populated and rich in solar energy. Solar energy is more effective in India because most of the days (300-330 days per year) are sunny. On Land area, The solar power reception is 5000 per watt-hours per year(Wh/yr). The daily average solar energy incident over varies from 4 to 7 kWh/m2. About 1500-2000 sunshine hours per year (depending upon location), which is far more than current total energy consumption. India has great potential to generate electricity from solar energy and the country is on course to emerge as a solar energy hub. The techno-commercial potential of photo- voltaic in India is enormous. Solar Energy is attractive because it is abundant and offers a solutions to fossil fuel emission and global climate change.

## Solar panels On-arid inverter External power grid Input counter 10 kV Alternating current Direct current 0.4 kV ((p)) "Green" counter Transformer 0.4 / 10 kV Own System consumption monitoring

## HOW SOLAR POWER SYSTEM WORKS?

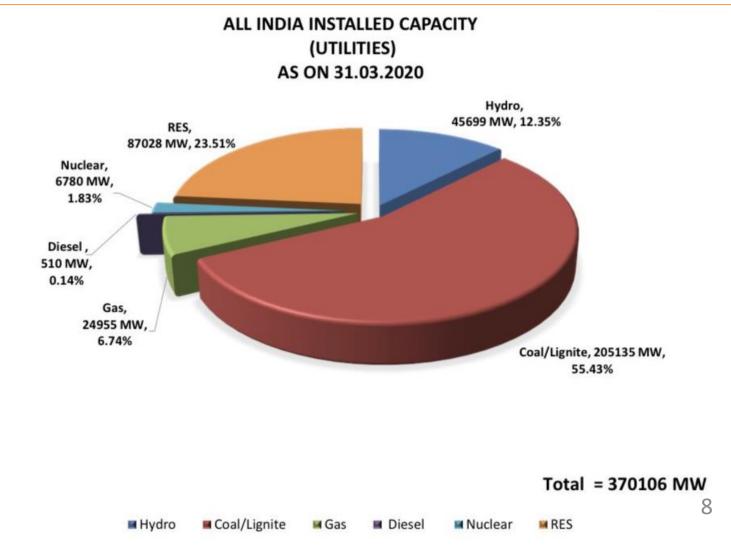
Solar power is harnessed using Solar Photovoltaic (PV) technology that converts sunlight (Solar radiation) into electricity by using semiconductors. When the sun hits the semiconductor within the PV cell, electrons are freed and bus bars collect the running electrons which results in electric current. When we place Solar panels connected in a

calculated manner in the sunlight, they start producing current and voltage in the form of Direct current (DC) but in most of the countries in the world appliances and equipment runs on Alternative current (AC) so we need to connect to all Solar panels to an Inverter which then converts DC into AC for commercial and home use.

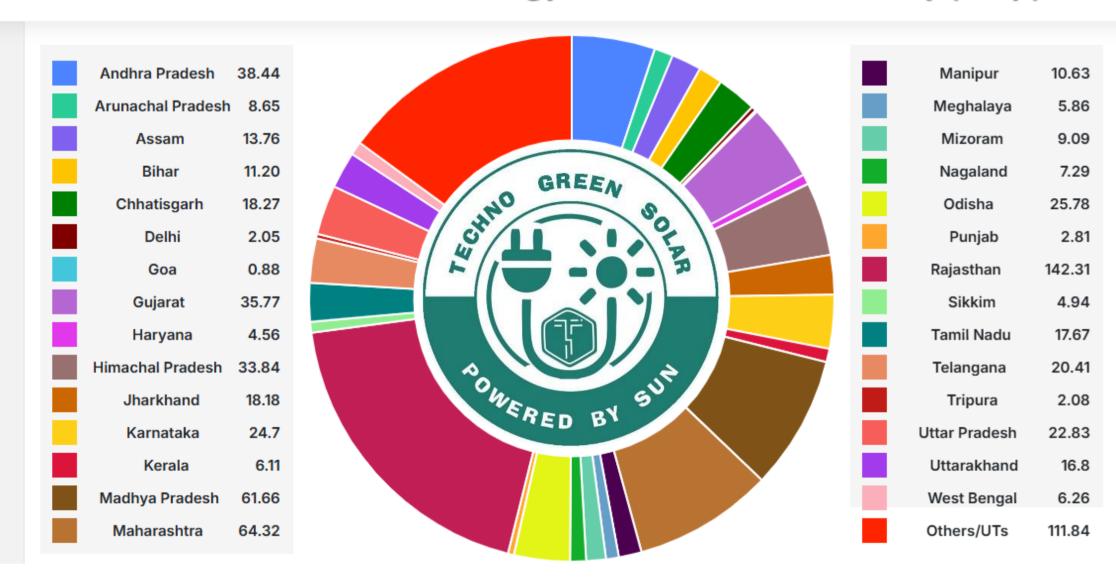
### THE INDIAN SOLAR MARKET

The Indian solar energy sector has been growing rapidly, in the past few years, majorly due to government's initiatives such as tax exemption and subsidies. Due to technical potential of 5000 trillion kWh per year and minimum operating cost, Solar power is considered the best suited energy sources for India. Today the Solar power, has an installed capacity of 9.84 MW which is about less than 0.1 per cent of the total installed renewable energy of India's – currently total installed renewable energy stand at 13,242.41 MW as per MNRE.

India's power sector had a total installed capacity of approximately 3,70,106 Megawatt(MW) till 2020 of which 55.43% is coal-based,12.35% hydro, 23.51% is renewable's and the balance is the gas and nuclear-based. Power shortage are estimated at about 11% of total energy and 15% of peak capacity requirements which is likely to increase in the coming years.

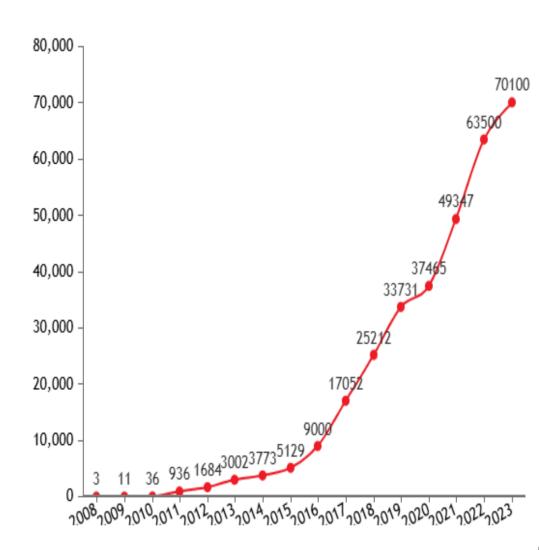


# State-wise estimated Solar Energy Potential in the Country (Gwp)



# Growth in Solar Installed Capacity(MW) as on June 2023





The fossil fuels like coal, oil and natural gas cannot remain the dominant sources of energy forever. Whatever the precise timetable for their depletion, oil and gas supplies will not keep up with growing energy demands.

Coal is available in abundance, but its use exacerbates air and water pollution problem, and coal contributes even more substantially than the other fossil fuels to the build-up of carbon dioxide in the atmosphere. For a long-term, sustainable energy source, solar power offers an attractive alternative energy in India. It is environmentally clean, and its energy is transmitted from the sun to the Earth free of charge and there is no out come any toxic gases



"I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that."

\_\_\_Thomas Edison









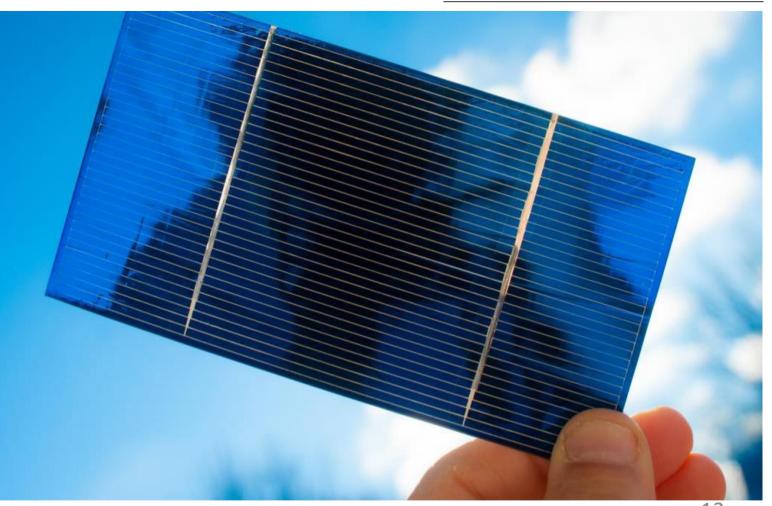


Our vision is to be able to place a Techno Green Solar branded power plant powering every commercial establishment in India and through that become the largest commercial solar power supplier in India. We will do everything in our capacity to ensure reliable and stable power supply and excellent customer service and support for our customers. We envision providing maximum return on investment to the shareholder by increasing profitability through adopting new technology and practices to minimize cost and maximize output.

The following will remain as our core values:

- High quality customer service to achieve customer delight.
- Continuous improvements in service quality, value to the customer and share holder wealth.
- Constant search for the most efficient and cost effective technology alternatives to deliver value to both customers and share holders.
- between company and its employees so that each can contribute to the well being of the other and jointly strive to achieve company goals and values.

# **OUR VISION**



13

# WHAT WE OFFER

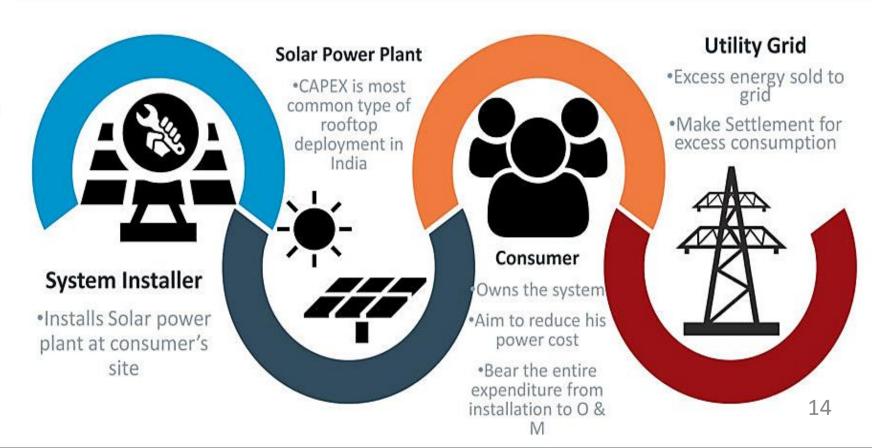
#### CAPEX/DEFFERED CAPEX AND OPEX/PPA

**THE CAPEX OR THE CAPITAL EXPENDITURE MODEL**, on the other hand, is a self-funding model where consumers have to bear all the capital expenses incurred in installing a rooftop system upfront. These expenses include funds used to set up, maintain, and operate the project. They also include the cost of the equipment, labor, upgrades, and other material costs.

The CAPEX model is beneficial to companies or consumers who have excess cash in their books and are interested in availing GST and depreciation benefits.

The payback period for these projects is usually not more than four years. Customers are also eligible for GST input and accelerated depreciation benefits in CAPEX MODEL.

# **CAPEX MODEL**



# OPEX/PPA/DEFFERED OPEX



Rooftops installed under the OPFX or **RESCO** model require the consumers to enter into a longterm, legally binding agreement for the roof on which the Utility solar system is installed. They must also sign a long-term power purchase agreement (PPA) for the supply of power.

> PPAs can be signed for up to 25 years, and the consumer is expected to pay a pre-determine tariff for this duration. Any excess electricity generated may be injected into the grid.

15

In this model, all capital expenses and risks are entirely borne by Techno Green Solar. We will be the system's owner for its entire lifetime and must provide operation and maintenance services throughout.

According to rooftop installers, consumers needs to pay tariff ranging for the PPA duration. The tariff varies depending on the state and the policies prevalent at the time.

A major benefit of the OPEX model is going solar without any large upfront investments. Techno Green Solar install a minimum capacity of around 100 kW or more to make it viable. Hence, the primary consumer base for the developers is the commercial and industrial (C&I) sector.



Once the PPA expires, the ownership of the rooftop project will be transferred to the customer. However, companies also include a provision for them to buy back the project before the PPA expires. This allows the consumer to transfer the project back to the developer after five years at a pre-determined rate.

Consumers who do not have the resources to operate and maintain the projects or are not ready to make a long-term capital Investment in a technology they are not sure about can opt for this model. They can choose Techno Green Solar to make it easier for them.







# **OUR TEAM**

#### ETHICAL AND COMMITTED LEADERS IN THE INDUSTRY

#### **Ravindra Rai** (Managing Director)

Ravindra Rai; founder of Techno Green Solar, has rich experience of 12 years in the power sector across project management, Solar Module and Solar Structure manufacturing, Engineering, Procurement, and Construction (EPC) and Operations and Maintenance (O&M) also in Project Management, Business Development, Bidding and Liasoning.

Prior to Techno Green Solar,
Ravindra Rai co-founded Alisha
Green Energy where he
spearheaded growth of the firm
through his commendable
marketing techniques. With a vision
of solving electricity issues of urban
India through Clean and Smart
Energy, he has been assembling a
team of Sales, tech. and operation.

#### **Gauray**

Manager (Design and Engineering)

Gaurav brings in more than 7 years of diversified experience in the field of Solar Plant Design along with strong R&D experience in Solar Cell Processing and Characterization.

In the past, he has worked with some of the fastest growing solar companies and established design & engineering team within the company. During his tenure he contributed with his design and engineering skills and improved solar plant generation (both rooftop and ground mount). Gaurav leads the Design and engineering process at Techno Green Energy with his ability to fuel business by providing extra ordinary and commendable technical solutions.

#### **Vikas Gupta**

Manager (Sales & Marketing)

Vikas Gupta has a work experience of more than 6 years in Operations Management, sales and marketing General Management. He has worked extensively in Purchasing and Supply Chain and has had substantial stints in Logistics, Facilities Management and Administration. His crossfunctional and cross-regional experience has given him an excellent insight into overall business operations. Vikas leads the Business Development process at Techno Green Solar. His experience and skill sets give him a unique understanding of customer requirements and expectations.

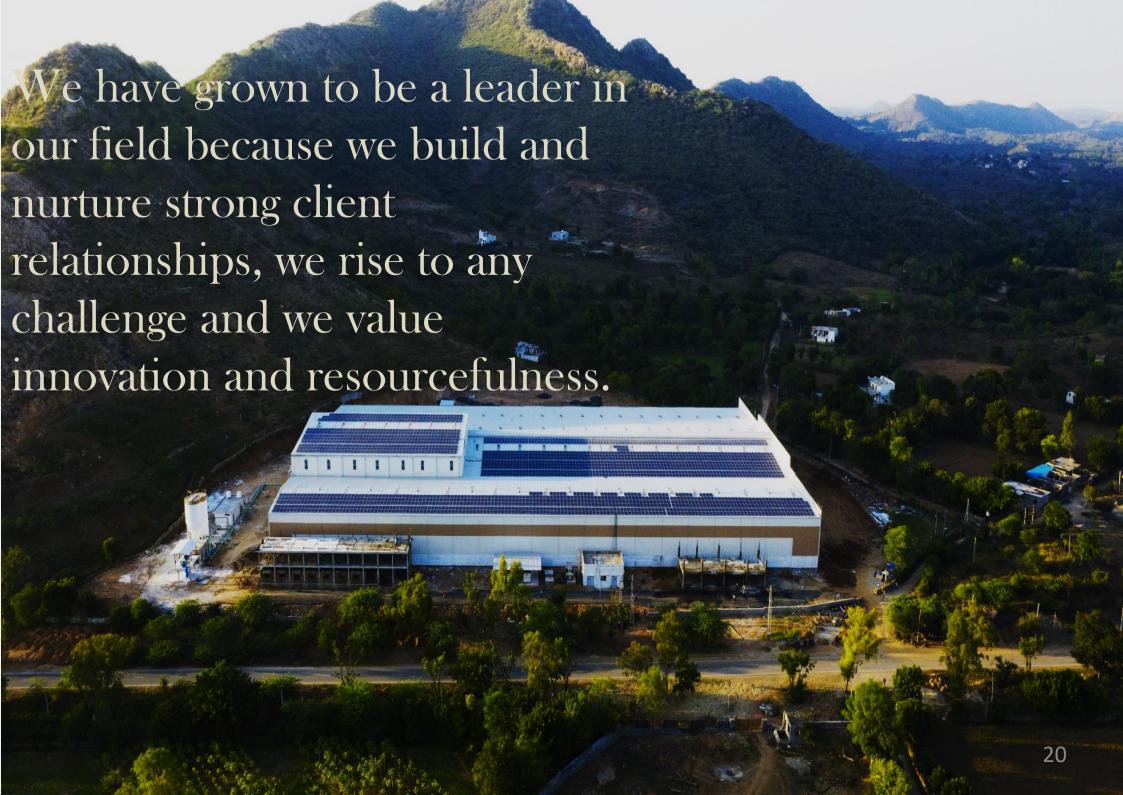
Apart from this we have skilled in-house I&C team. we self-perform the full scope of solar services. Throughout every phase, we communicate the impact of decisions, foresee and mitigate potential problems and ensure control over safety, quality, schedules and productivity. By providing full power delivery services as part of our solar projects, we eliminate extra opportunities for setbacks. After all, any time clients can work with a single contractor as opposed to two, they're reducing the chances for pushed deadlines and budgetary pressures. Whether a project has

- ❖ A Better Construction Experience.
- Focus On Your Needs.
- Add Value At Every Stage.
- Solutions, Not Excuses.
- Demand For Safety And Quality.
- Receive Certainty Of Schedule.
- ❖ A Relationship Build To Last.



transmission or substation construction needs, we can deliver.





### **OUR PRESTIGIOUS CLIENTS**



























# Indian Silk Manesar

SONY SALES INDIA PVT. LTD.



# Techno Green Solar

Powered By Sun

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