



Interaction with Cherlapally Industrial Association

Date: 16.07.2022 @ Hyderabad

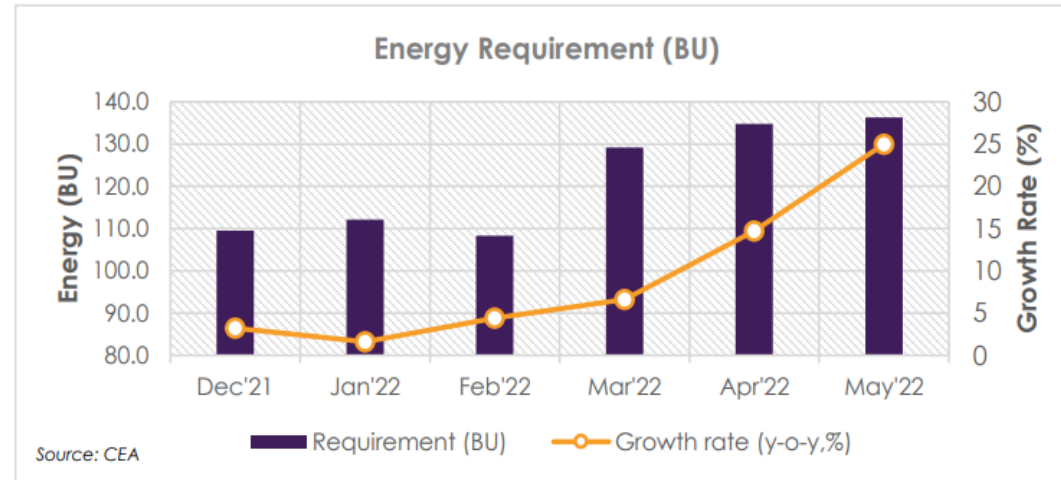


- 1 Power Scenario in India and why Renewable Power**
- 2 How Installing Solar System is Beneficial for Business?**
- 3 TATAPOWER's Experience in Solar Business and Offerings**
- 4 Q & A**

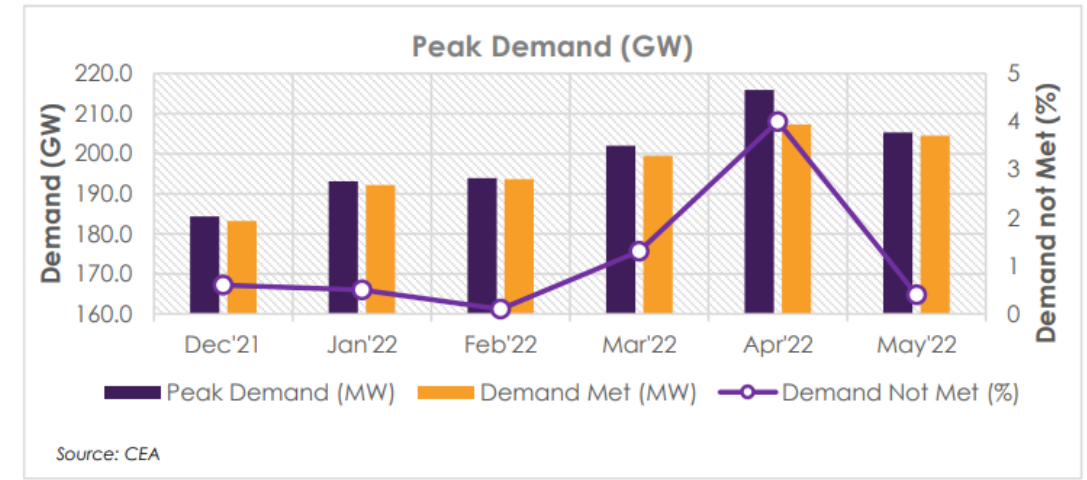
Power demand in India



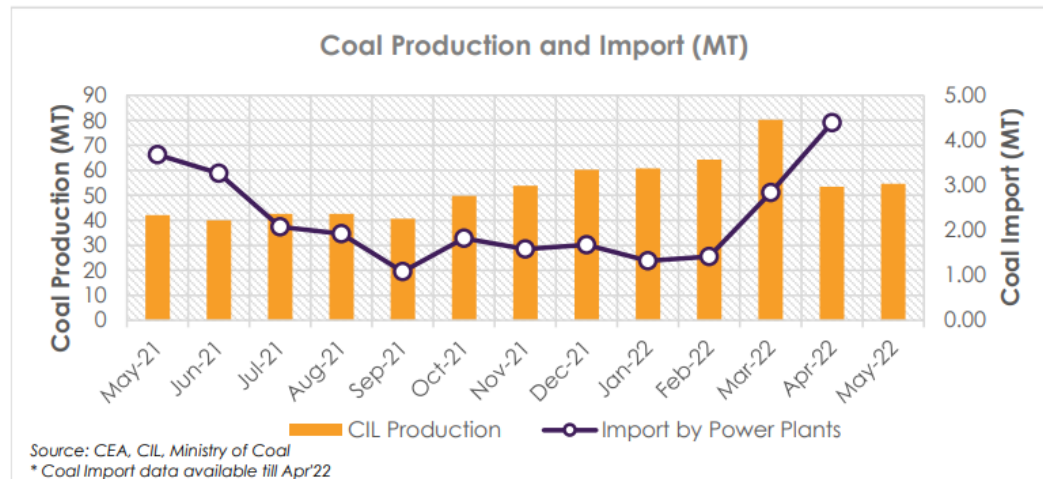
ENERGY REQUIREMENT



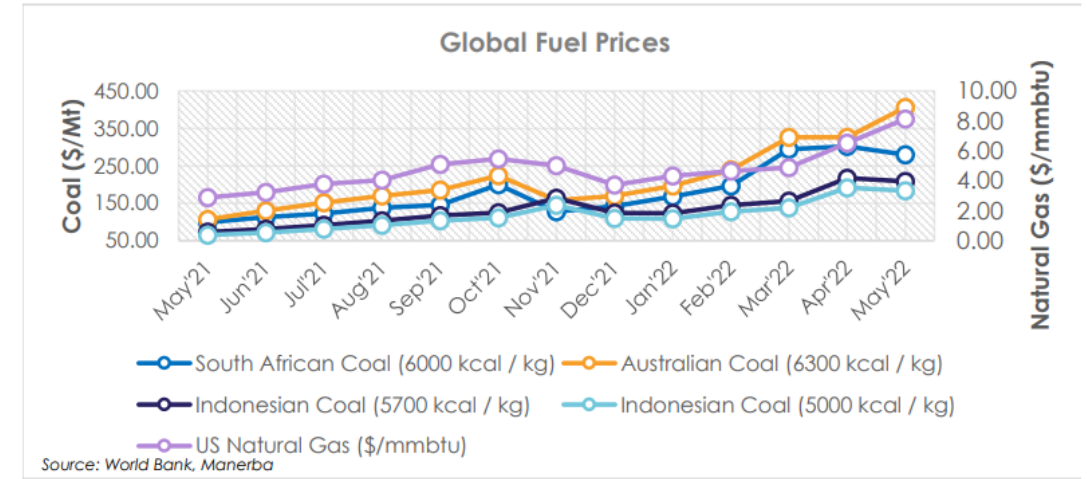
PEAK DEMAND



COAL PRODUCTION AND IMPORTS



FUEL PRICE





Increase in Coal imports/ Domestic production challenges



Additional infra requirements for handling coal & Transmission lines



Raise in Co2 emission, Increase in Environmental Pollution leading to Global Warming



Increase in global coal prices will resulting in higher Energy tariffs, leading to inflation



Additional capital for FOREX requirements

Why Use Solar Power



20% to 50 % Electricity bill savings

- Average **~Rs 2 Cr saving¹ for MSMEs**, institutions & **~Rs 10 lakh¹ saving for residential**
- Payback period of **4-5 years**
- **Grid Independence** against rising tariff
 - Electricity tariff increased by more than 50%² in 5 years' time in many states



Good For The Environment

- MSMEs, others: Avg **~3,000 tonnes³ CO₂ emissions mitigated**, Equivalent to planting **5,000 Trees³**
- Residential: Avg **~150 tonnes CO₂ emissions mitigated**, Equivalent to planting **250 Trees**



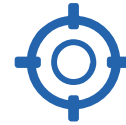
Minimum Maintenance

- Solar rooftop system has **no moving parts**



Green Building Certifications

- Additional points for solar in LEED, IGBC



Scalable Design

- For easy upgrade & **future expansion** requirements



Accelerated Depreciation

- Up to **40% accelerated depreciation** in the **1st year of commissioning** as **tax benefit** in case of **business**

1) Calculated for 25 years, for 100 kW system for MSMEs, institutions, and 5 kW system for residential. Electricity tariff calculated @Rs 7.2 / unit

2) Years refer to FY 2011 to FY 2016. Average tariff indexed to 100% for Year 1 and used across customer segments for the geographies Delhi, Rajasthan, Gujarat, Maharashtra, Andhra Pradesh and Kerala. (Source: Sigma Insight)

3) Mentioned for 100 kW system for MSMEs and 5 kW system for residential, over 25 years lifetime. (Source : MNRE Website)



- Any shadow free space
- RCC Rooftop
- Metalic Roof (GI Sheets) Industrial shed
- Create Car Port with solar
- On rainwater harvesting pond in process industry
- On Building Facade
- Ground Mount

Why Partner with Tata Power

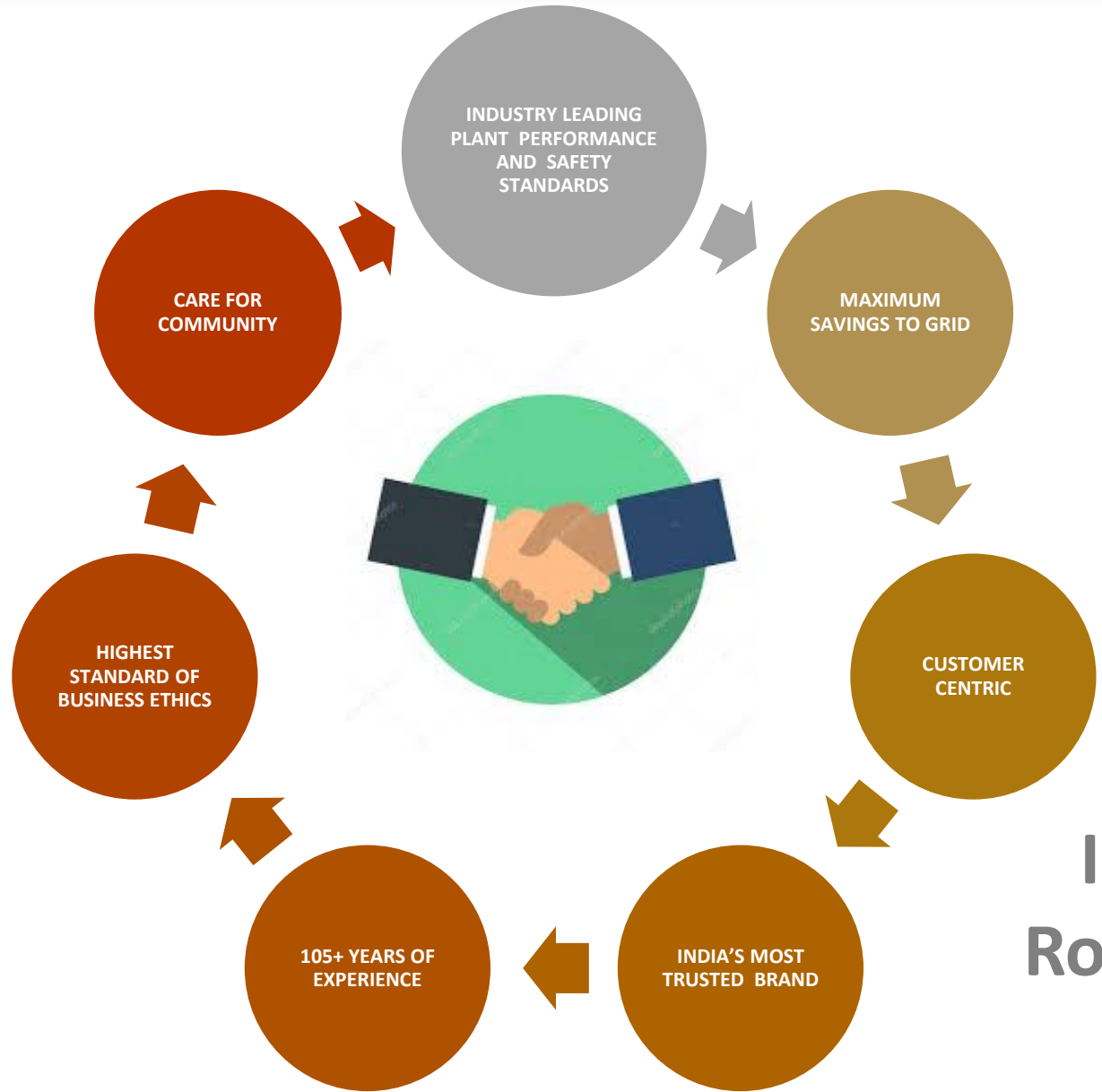


In house Solar

Manufacturing, Engineering, Procurement and Construction capabilities.

Hassle Free

Installation, Operation and Maintenance



Best in class

Sales and Service Support

20-40% cheaper than Grid Tariffs

India's Top EPC & Rooftop installer with 25 years of experience



Large satisfied customer base

Partner of choice for **30,000+** total
& **15,000+** residential customers

No 1 Solar EPC player

For **8 years in a row**, from
2014-2022, by Bridge To India

Lifecycle Service & Support

Rapid support anywhere
through TPS **extensive service
network**

Eco Friendly

10 million tonnes carbon
footprint reduced - Equivalent
to planting of **17 million trees**

Large installed base

900+ MW of rooftop & **5.4+ GW** of
utility scale projects for a brighter India

30+ Years Experience

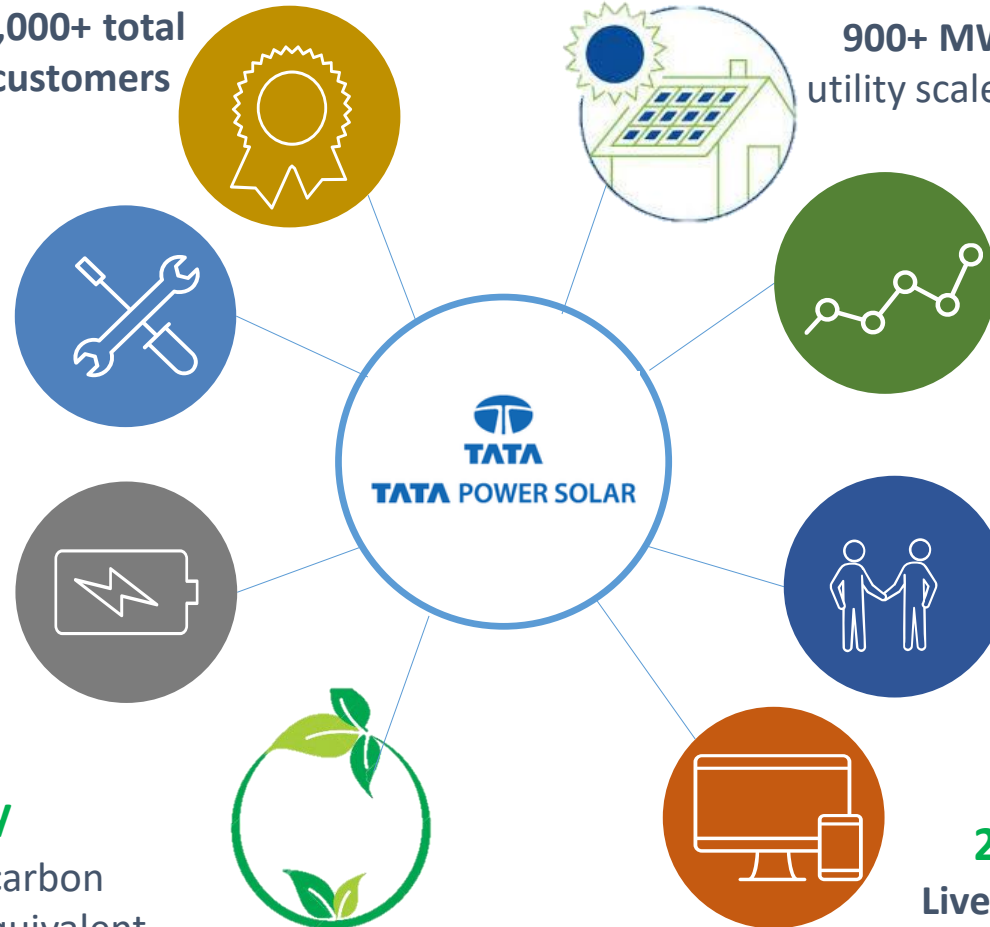
Only Indian solar EPC company to
complete entire lifetime of a solar
project

Pan India Network

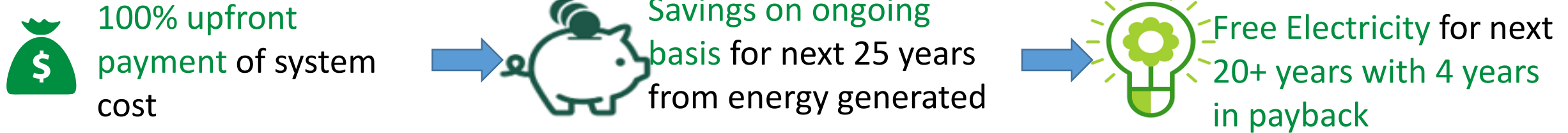
250+ channel partners

24x7 Monitoring

Live data tracking of solar
installations



CAPEX MODEL



CAPEX MODEL WITH FINANCING



Tata Power has various financing tie-ups to facilitate easy loans approval & disbursement, providing the additional benefit to customer of not having to utilize his / her existing credit limits with banking partners

Payback Calculations – an example



Project summary	System size KW		500
	Rooftop space required(approx.)	Sqft	50000
	Power Generated per month	in units/month	60,000
	Power Generated per Annum (Year 1)	in units/year	7,20,000
	Current Electricity tariff	Rs per kWh	7.6
Loan from SBI	Equity amount in lakhs	20%	50.0
	Term Loan in lakhs	80%	200.00
	Annual Interest Rate for Loan		8.5%
	Loan Tenure (Yrs)		10.0
Savings	Payback period- Project	Years	4.79
	Monthly savings from solar	Rs lacs / month	4.56
	Monthly EMI	Rs lacs/ month	2.48
	Monthly Savings	Rs lacs/ month	2.08



One of the best financing schemes available for MSMEs in the country

Challenges addressed

1. Collateral requirements are kept minimum
2. Best ROI in the market
3. Faster turn around time

Landmark Installations



World's largest 16MW Rooftop Solar Plant at R.S.S.B Educational & Environmental Society



First Floating Solar System built on twin ponds with a capacity of 1.4MWp at Tata Chemicals, Nellore



820.8 kWp at Brabourne Stadium World's Largest Solar Powered Cricket Stadium



2.67 MW Carport installation at Cochin International Airport



Vertical Facade Installation

Client: Dell

Plant size: 120 kW

Location: Bangalore, Karnataka, India

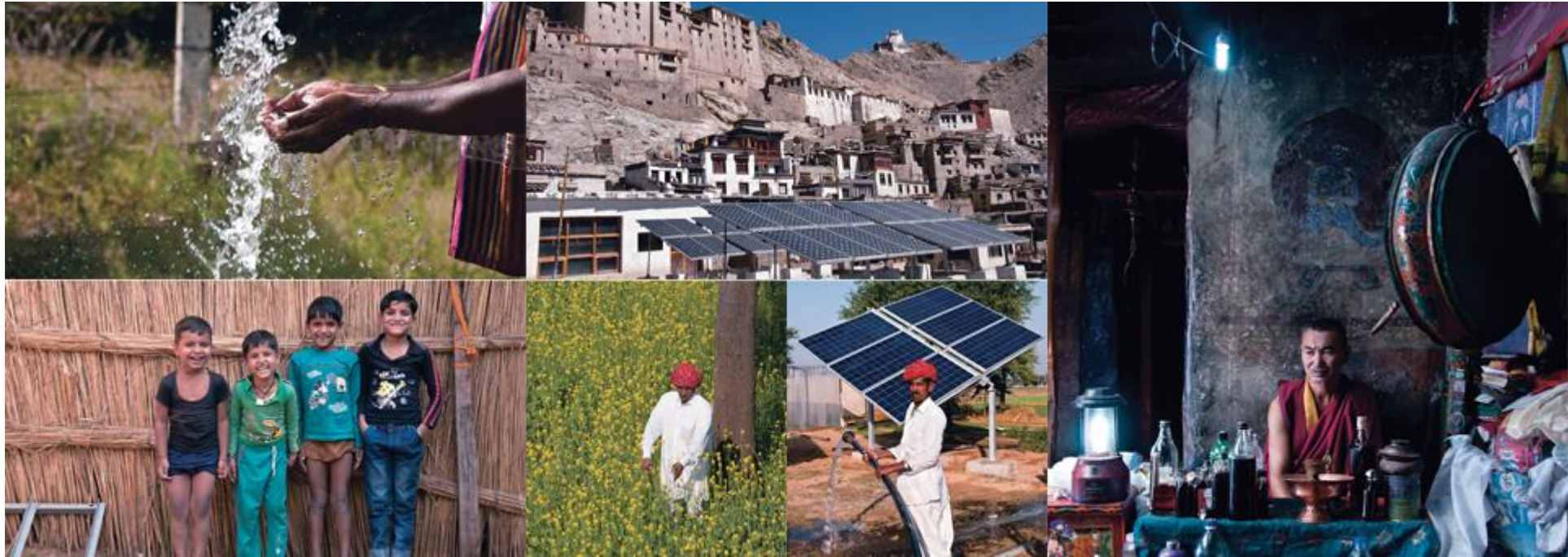


Solar Vehicle Charging Stations

Client: Gujarat Sachivalaya

Plant size: 50 kW

Location: Gujarat, India



TATA POWER SOLAR SYSTEMS LIMITED

#78 Electronics City Phase 1, Hosur Road, Bengaluru - 560100, India

P: 1800-419-8777 E: info.solar@tatapower.com W: www.tatapowersolar.com

Typical RCC Installation – RNS IT – 600kWp



Typical RCC Installation



Mettalic Sheet Installation



Largest installation on single shed in South India – 2.9MWp

Typical G I Sheet Installation



Car Port Solar Systems





Cochin International Airport– 2.67 MWp

Key installations



TATA Consultancy Services, Hyderabad – 0.6MW

Floating Solar Solutions



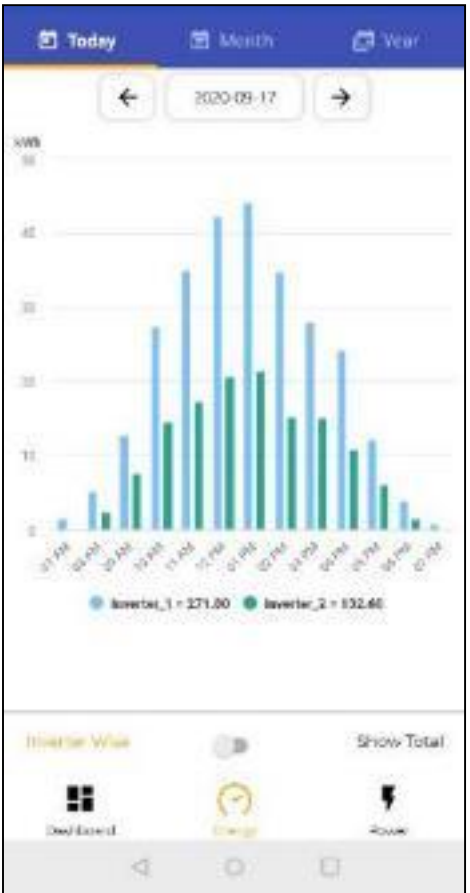
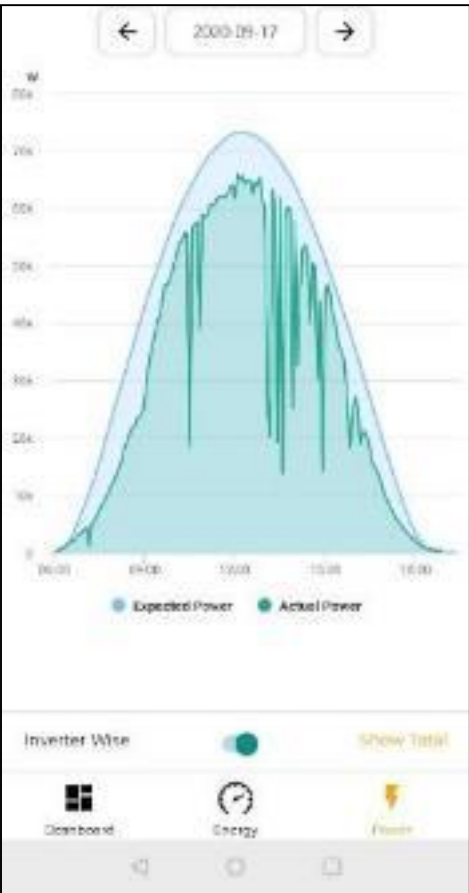
1.4 Mw floating solar plant full water level





NTPC Kayamkulam – 70 MW





Tata Power is an End-End Solutions Provider for Renewable Power



Cell & Module Manufacturing

One of India's largest integrated cell and module manufacturing facility

- 500 MW of cell manufacturing & 600 MW of module manufacturing capacity
- 1GW of modules shipped globally



Development of Wind & Solar (Utility Scale & Rooftop) plants

Over 2.2 GW of generation capacity installed, 500 MW in pipeline

- Solar Assets - 1.3 GW installed, 0.5 GW in pipeline
- Wind - 0.9 GW installed
- Solar and Wind Assets in multiple states across India
- O&M for solar & wind sites



Solar Agricultural Pumps

30,000 pumps installed across India

- 30,000 acres of farmland irrigated
- Installations across 9 states



Rooftop Solar EPC

900+ MW projects commissioned

- Solutions for industrial, commercial, institutional and residential customer
- Commissioned 16 MW for RSSB-EES - world's largest solar rooftop project
- Commissioned India's largest solar carport – 2.7 MW at CIAL



Utility Scale Solar EPC

Over 5.3 GW of projects

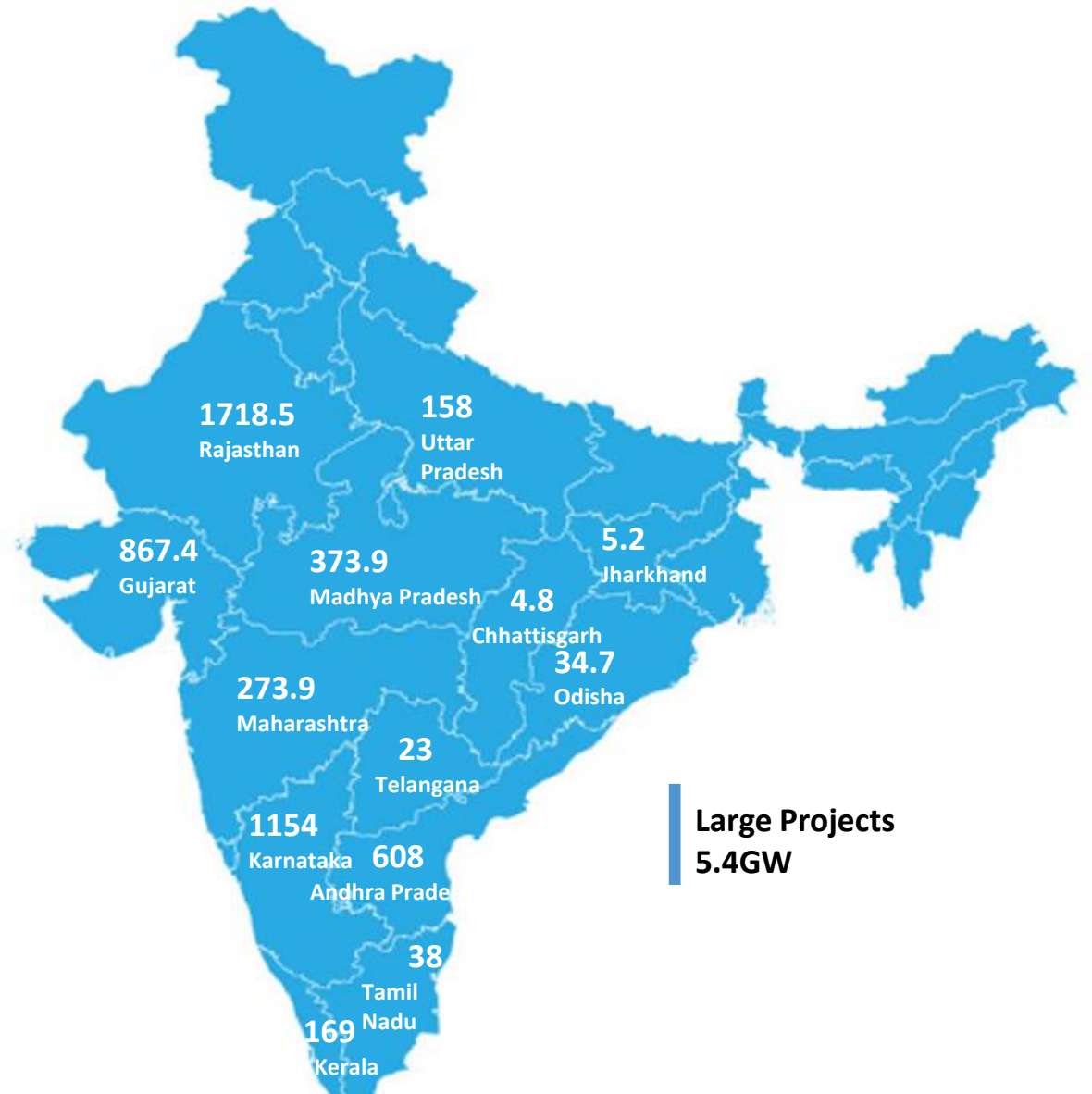
- 5.3 GW of solar power projects commissioned, including self-EPC
- Commissioned 100 MW for NTPC in AP - India's largest solar plant with domestically manufactured modules





Large projects portfolio

CLIENT	CAPACITY	LOCATION
NTPC	65 MW	Bhadla, Rajasthan
NTPC	50 MW	Mandsaur, Madhya Pradesh
NTPC	100 MW	Anantapur, Andhra Pradesh
Fortum	87.5 MW	Bhadla, Rajasthan
Solar Arise	67.5 MW	Beed, Maharashtra
TPREL	130 MW	Anantapur, Andhra Pradesh
TPREL	130 MW	Pavagada, Karnataka
TPREL (DCR)	67.5 MW	Pavagada, Karnataka
KREDL	53 MW	Karnataka
Rattan India	54 MW	Katol, Maharashtra
Rattan India	67.5 MW	Pavagada, Karnataka
TPREL	32 MW	Charanka, Gujarat
TPREL	38 MW	Palaswadi, Maharashtra
BPCL	33.5 MW	Bhoruka, Karnataka





Bridge To India, 2014-2019



India Rooftop Solar Congress,
2020



National Excellence Awards, MNRE,
2016



First View Ventures & Solar
Quarter, 2019



Punjab & Haryana State Annual
Solar Awards 2019



*For RSSB 12MW project, REI
2016*



For RSSB 12MW project, 2016

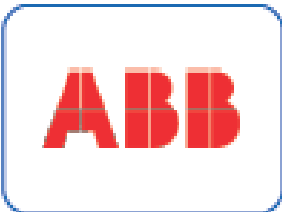
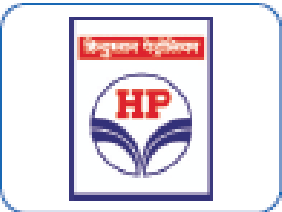


FirstView Group, 2015



Indian Rooftop Solar Summit 2016,
FirstView Group

Customer Portfolio: Corporate Segment – A Glimpse



Customer Portfolio: Institutional Segment – A Glimpse



IIT Kanpur



*Indian Institute of
Astrophysics, Bengaluru*



*Madras Christian
College*



Lotus Temple, Delhi



IIT Roorkee



*Hindustan Institute of
Tech & Science, Chennai*



*Kerala Institute of
Medical Sciences*



*Voluntary Health
Services, Chennai*



*PSG College of
Technology, Coimbatore*



*Coorg Institute of
Dental Science*



*Vellore Institute of
Technology*



*Sri Venkateshwaraa Medical
College Hospital, Pondicherry*

*Chandigarh Baptist School**Bal Bharti Public School,
Noida**Delhi Public School,
Panipat, Haryana**Edify School,
Amravati, Maharashtra**Ambience Public School,
Gurgaon**St. Peters School,
Mumbai, Maharashtra**GITAM School,
Tirupati, Andhra Pradesh**St. Alphonsa's High School,
Hyderabad, Telangana**Chinmaya International Residential
School, Coimbatore**Sri Sankara Vidyalaya,
Karur, Tamilnadu**Gyan Mandir Public School,
Phagwara, Punjab**De Paul Public School,
Kozhikode, Kerala*



NTPC Ananthpur – 100 MW

Cochin International Airport – 12MWp – Off Campus Project



Project Site - Before



Project Site - After

Cochin International Airport – 12MWp – Off Campus Project



Glimpse of solar plant installation in petrol pumps



A Glimpse of Solar rooftop campaign at Retailers Meet of IOCL & HPCL



[A]. Solar Rooftop Campaign at IOCL Dealers meet –



[B]. Solar Rooftop Campaign & Interactive session on solar rooftop system at HPCL Dealers meet



Deployment of New Product Installations on Petrol Pumps

- First ever micro inverter based grid connected system has been installed in IOCL outlets
- Micro inverter based solutions has been positioned for outlets where the challenge with respect to space constraints are high while installing the BOS systems.



- [Solar on grid system of 4.5 KW with Mono PERC Panels with Micro inverter