

The background of the slide is a collage of images related to power and energy. It includes a large wind turbine, a power plant with smokestacks, a woman in a blue shirt plugging a cable into a green car, a hand holding a smartphone displaying a dashboard, solar panels, and various icons like a gear, a thumbs up, and a star. The overall theme is sustainable and modern energy solutions.

**TATA POWER**

Research Report on  
**Tata Power**  
Co. Ltd.

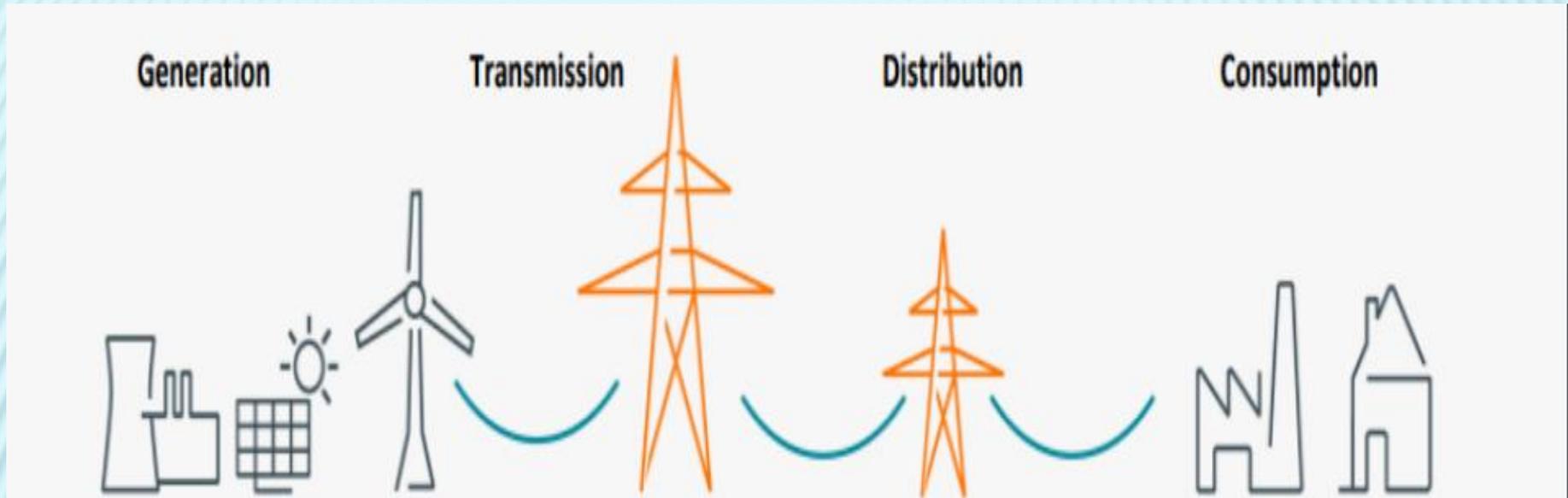
Dated : 04-10-2022

CMP : Rs. 218

Market Capitalisation:

Rs. 68,818 cr

# Electricity Value Chain



Tata Power Company Ltd is primarily involved in the business of the **generation, transmission and distribution of electricity.**

- ✘ **GENCOS** : These are the company that generate electricity. Some major examples of such companies are **Tata Power**, Reliance power, JSW Power, Adani Power, NTPC Ltd. etc.
- ✘ **DISCOMS** : These are the companies that play role in distribution the electricity to the end consumers, i.e., households, offices, schools etc. Some major examples of such companies are **TATA POWER DELHI DISTRIBUTION LIMITED.**, MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD

# Revenue Breakdown

1. **Transmission & Distribution (~46% of revenues)** - This segment comprises of transmission and distribution network, sale of power to retail customers through distribution network and related ancillary services. It also comprises of power trading business.
2. **Generation Segment (~37% of revenues)** - This segment comprises of power from hydroelectric and thermal sources (coal, gas and oil) from plants owned and operated under lease arrangements and related ancillary services. It also comprises of coal mining, trading, shipping and related infra business.
3. **Renewables Segment (~16% of revenues)** - This segment comprises of generation of power from renewable energy sources i.e., wind and solar. It also comprises of EPC and maintenance services with respect to solar. **Company's retail customer base expand from ~3 million to ~12 million after acquisition of stake in Odisha's distribution business.**
4. **Others (~1% of revenues)** - This segment comprises of project management contracts/ infrastructure management services, property development, lease rent of oil tanks, satellite communication and investment business.

- × Tata Power is one of India's largest integrated power companies and together with its subsidiaries and jointly controlled entities, has an installed/managed capacity of 13,974 MW of which 35% comes from clean energy sources.
- × The company has the distinction of being among the top private players in each sector of the value chain including **solar rooftop** and value-added services.
- × India is one of the world's fastest growing economies and it is treading the ambitious road to Net Zero by 2070, with a commitment to meet the country's increasing clean energy demand, by making renewable power affordable and accessible. Tata Power, as one of the nation's leading power utilities is driving India's growth in clean and green energy solutions.
- × Company's main focus is on renewable, transmission and distribution, as well as customer centric businesses of Solar rooftops, solar pumps, micro-grids, EV charging, energy services, home automation, floating solar and others.
- × The company is a leader in most renewable energy segments in the country. It is the leader in rooftop solar installations, solar water pumps and has dominant position in the growing EV charging stations market in India.
- × Plans Rs 14,000 crore consolidated capex in FY23 (with Rs 10,000 crore in Renewables)

## Segments and the value chain



Renewable Energy  
Generation

**3,400 MW**

Installed generation capacity



Conventional Energy  
Generation

**10,115 MW**

Installed conventional  
generation capacity



Transmission

**3,552 Ckm**

Total transmission  
line capacity



Distribution

**12.3 million**

Total customers served



EV Charging Infrastructure

**2,200+**

Public EV charging points  
installed across 352 cities



Solar Rooftop

**950 MW**

Solar rooftop project  
executed



Manufacturing

**1,135 MW**

Manufacturing capacity  
of Solar cells & modules



EPC Large Projects

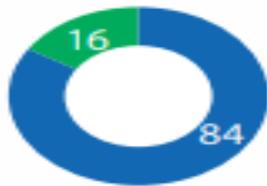
**9.7 GWp**

Projects executed and  
under pipeline

## Evolving generation mix

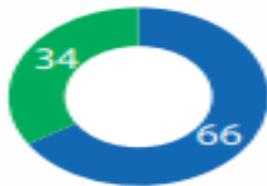
(%)

2015



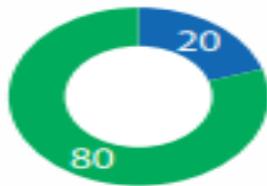
**Largely coal-based capacity expansion** to meet the growing energy demand in India

2022



**Major capacity expansion of greenfield solar capacity**  
Inorganic growth through acquisition of Welspun portfolio

2030



**Pursuing new solar and hybrid capacities**

2040-2050



**Phase-out of all coal-based generation**  
**Carbon net zero before 2045**

● Thermal ● Clean (non-carbon based)

Tata Power is aggressively focused on growing the clean energy i.e., sustainable source of energy (wind, solar, hydro) instead of thermal energy.

Green portfolio today constitutes over one-third of total power generation portfolio and it aim to increase it by more than 60% over the next five years. With BlackRock and Mubadala investing 4,000 crore in its Renewables business.

Tata Power is positioned to pursue even larger opportunities in the RE space and continue to retain leadership position in the new consumer centric businesses - Rooftop Solar, EV Business, Solar Pumps etc.

## Transmission and distribution

Tata power T&D business serves over 12 million customers across 4 states and UT in India and has 3,500+ circuit km of transmission lines.

### Current T&D portfolio

Transmission	Business model	CKM
Mumbai Transmission	Regulated	1,224
Powerlinks (JV)	Regulated	2,328
<b>Total</b>		<b>3,552</b>

Distribution (Dist.)	Business model	Consumers in million
Mumbai	Dist Licence	0.7
Tata Power Delhi (Dist.) Limited	Dist Licence	1.9
TP Central Odisha (Dist.) Limited	Dist Licence	2.9
TP Southern Odisha (Dist.) Limited	Dist Licence	2.4
TP Western Odisha (Dist.) Limited	Dist Licence	2.1
TP Northern Odisha (Dist.) Limited	Dist Licence	2.1
TP Ajmer (Dist.) Limited	Dist Franchisee	0.2
<b>Total</b>		<b>12.3</b>

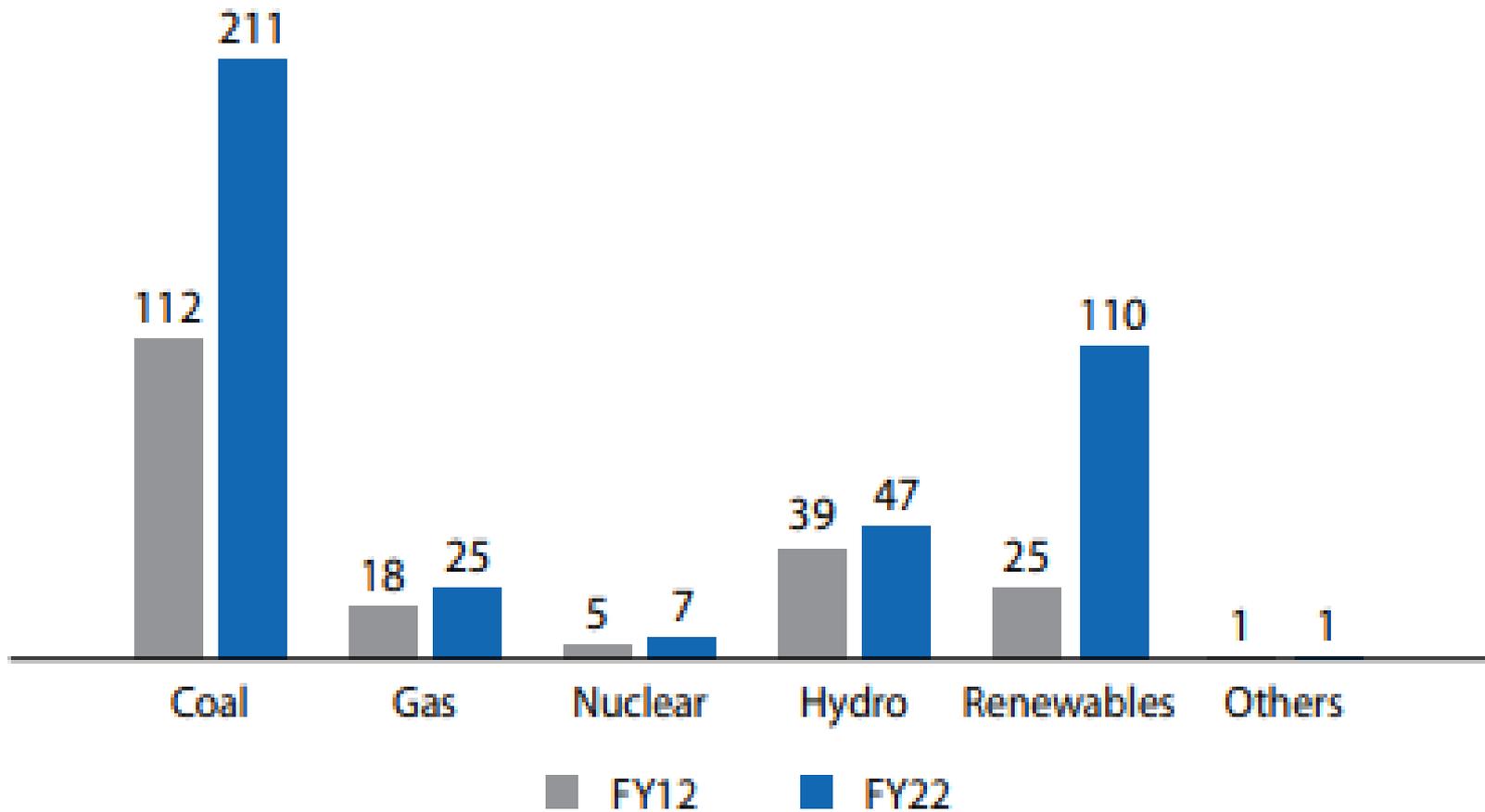
# Thermal power generation plant at Mundra

The company also owns 4,000 MW Ultra Mega Power Project at Mundra based on super-critical coal technology. **This project alone accounts for ~31% of total capacity and ~45% of thermal capacity of the company.**

Mundra operated under Section 11 which allows pass through mechanism: Tata Power has been operating Mundra power plant under Sec 11 from May 2022 under which a pass-through mechanism has been provided. Under the arrangement, the project is entitled to recover its entire cost (both variable+fixed charges) on attaining normative availability level. Under the current arrangement, CGPL is giving power to Gujarat and Maharashtra discoms at provisional tariffs, which provides zero under recovery. However, the arrangement is applicable till 31st October 2022 only and the company is expecting to extend the agreement for future period. We assume that the arrangement is temporary and will not have any major impact on the long-term sustainability of PAT unless it signs any long term supplementary PPA with GUVNL and other beneficiary states.

# Installed Capacity

(GW)



# Commissioned India's largest floating solar power project of 101.6 MWp in Kerala



India's largest floating solar power project of 101.6MWp in Kerala backwaters

# Tata Power Solar secures India's largest solar EPC order of 1GW worth INR 5500Cr from SJVN

- 'Make in India' cells and modules will be used in the project -
  - ✘ Tata Power Solar, one of India's largest integrated solar companies and a wholly-owned subsidiary of Tata Power, bagged India's largest single solar EPC order of 1GW for approx. INR 5500 Crore from SJVN Ltd. This EPC order has been designed keeping in mind the innovative use of 'Make in India' cells and modules. The project will be developed under the CPSU scheme of MNRE and will be completed within a period of 24months.
  - ✘ Tata Power Solar has always been a pioneer in implementation and commissioning of such large scale renewable projects. With this win of 1GW, the company's order booking crosses the INR 12000 Crore with a cumulative portfolio of more than 9.3GW for utility scale renewables projects.

- × Solar Utility Scale EPC order book stood at 3 GW worth 12,000 crore. It achieved highest-ever quarterly revenue in rooftop solar business and doubled revenue from solar pumps on y-o-y basis.
- × The government has also announced a Basic Customs Duty of 25% on imported solar cells and 40% on imported solar modules to protect domestic manufacturing in the country
- × Another Green Energy Initiative under PM-KUSUM yojna. Tata power is increasing the number of solar powered pumps for farmers. These solar pumps reduces the farmer' dependence on petrol and diesel.
- × TPREL adds 234 MW solar projects to its operational portfolio.
- × Tata Power wins 600 MW Hybrid Project from SECI in Karnataka
- × Signed an MoU with Tamil Nadu State Government for Rs 3,000 crore investment for setting up a greenfield 4 GW Solar Cell and Module Plant
- × Tata Power Solar Wins India's Largest EPC Contract to Develop 1 GW Solar Project.
- × On the T&D front, it has been able to consistently reduce the AT&C losses in the four Odisha Discoms



### **Rooftop solar**

We have consistently grown our rooftop solar market share, order book and revenue. We have a market opportunity to enhance our portfolio size multiple times. We will be enabled by a conducive external environment, driven by the value proposition of solar, increased government push and regulatory support, increased corporate pull in the wake of climate change, and access to capital. In the near term, we will focus on leveraging our brand, utilising channels, tapping into white spaces, profitability, and productivity, and contributing to 2x growth in the portfolio.



### **EV charging**

The EV ecosystem is burgeoning in India, and we intend to play a key role in enabling this growth. We plan to tap the market opportunity driven by the government's push on electric cars, buses and OEMs, a strong partner ecosystem, and digitally enabled customer experience.



### **Home automation**

We have established our presence in the home automation market, delivering a complete range of value-led products. We have been enabled by our multi-channel play across retail, direct, e-commerce, new products and through our Discoms.

The home market has a significant potential to grow in size. To utilise this opportunity, we will focus on effective demonstrations, creation of awareness, building preference for the 'EZ Home' brand, and delivering best-in-class customer service.

**TATA POWER**

## **Tata Power has more than 50% market share in terms of Electric Vehicles power infrastructure**

- × Tata Power EZ Charge has cumulatively installed 13,000 + home chargers and 2,200+ EV charging points at the end of the year.
- × Their target is to set up 1,00,000 electric charging stations throughout India by FY25.
- × Over 90% of the EV charging is done at home around the world. Tata power will sell its electric charger bundled with its EV and will install Electric Smart meters at homes and charge its service cost to customers.
- × The infrastructure for EV in India is not efficiently built yet. Tata power is constantly working to set up charging stations.
- × Tata group of companies already have a lot of infrastructure, which includes Tata Starbucks, Tata Tanishq stores, Zudio, Titan etc. Tata power can also set up its EV charging stations within these existing infrastructure. This is an interesting synergy within the group.

# Tata Group Undertaking an Ecosystem play

- ✘ Tata Power, Tata Motors and Tata Chemicals is working collaboratively together to foster that Electric Vehicle ecosystem. Tata Motors has become a proxy bet for investors looking to dabble in the electric vehicle revolution underway globally. The success of US-based Tesla and the Indian government's push towards the electrification of the automobile sector has nudged investors to search for companies that may benefit from the technological disruption.
- ✘ The EV boom is a great opportunity for companies to come up with the charging infrastructure. Sales of electric vehicles could touch the 5 crore mark by 2030.
- ✘ Lithium ion Batteries are being produced by tata chemicals and EV charging stations are being developed by Tata power

# EV Industry : EVs Are Bringing A Silent Revolution In India

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- ✘ In the last four years in Asia, the annual growth rate of EV has been 55%. The ecosystem of EVs is evolving in India. Indians are seeing EVs or electrical vehicles on the roads more than usual. As per data available with the Ministry of Road Transport and Highways, as of 3rd August 2022, there were a total of 13,92,265 EVs running on the roads of India.
- ✘ An electric vehicle or EV operates on an electric motor, unlike normal vehicles having an internal-combustion engine that generates power by burning a mix of fuel and gases. Boosting the use of EVs will help India save nearly one Giga tonne of carbon dioxide emissions by 2030. It will also help in achieving the 2070 zero carbon emission target.
- ✘ Although electrical cars are a blessing to the environment, adopting a fully-electric ecosystem in India still has a few hurdles. The high cost of the vehicles is keeping the people of India from buying EVs. Over 60% of customers believe that an EV is beyond their budget. However, now, the rise in the price of fuel is making people think of buying an electric car. Further, there is inadequate infrastructure in India to support the smooth running of EVs.
- ✘ While EV technology has not been new in India, it is only now that it is picking speed due to the play of many factors like environmental awareness, the ease of driving, schemes and subsidies by the government helping in cost reduction, rise in fuel prices etc.

# Government Initiatives to boost EV

## Industry

- ✘ Approval of the Production Linked Incentive (PLI) scheme for manufacturing Advanced Chemistry Cell (ACC) in the country helped bring down the prices of batteries, which further resulted in cost reduction of electric vehicles.
- ✘ Government had approved Phase-II of FAME Scheme (faster adoption and manufacturing of hybrid and electric vehicles) scheme with an outlay of Rs. 10,000 Crore for a period of 3 years commencing from 1st April 2019 to improve the infrastructure for easy manufacturing of electric vehicles in the country.
- ✘ The GST on EVs has been reduced from 12 per cent to 5 per cent. Further, GST on chargers/ charging stations for electric vehicles too, has been reduced from 18 per cent to 5 per cent.
- ✘ The ministry also directed the states to waive road tax on EVs. This helped bring down the initial cost of EVs.
- ✘ The government has also provided a tax exemption of Rs 1.5 lakh to people buying EVs on loan.
- ✘ To promote electric vehicles in the Delhi-NCR region, the Indian Renewable Energy Development Agency Limited (IREDA), the largest lender to the renewable energy sector in India, has approved a loan of Rs. 267.67 crores for BluSmart Mobility to purchase new 3,000 all-electric cars.

# Key Risks

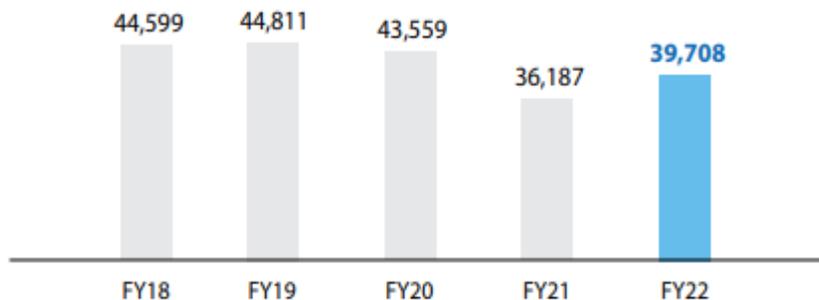
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- × Working capital cycle can be extended Under the business to government model, at the end they have to collect the money from the government. This leads to extended working capital if payment not received on time.
- × They import coal from Indonesia to generate electricity in their coal fired plant at Mundra. In Indonesia the coal prices are extremely expensive. Due to their fixed contract with Discoms (Power Distribution companies) they are unable to pass on the hike in prices. This is why their Mundra coal plant is suffering losses.
- × The price hike of tata power share has happened not because the performance of the stock but because of the growth story of company. The growth story eventually need to translate into increase in revenue, increase in profit at some stage. This can only happen gradually over the years. The shift in power generation through renewable sources must be executed as planned.
- × The solar rooftop, solar pumps, EV charging stations segments constitute a small portion of total revenue of the company.

# Ratios

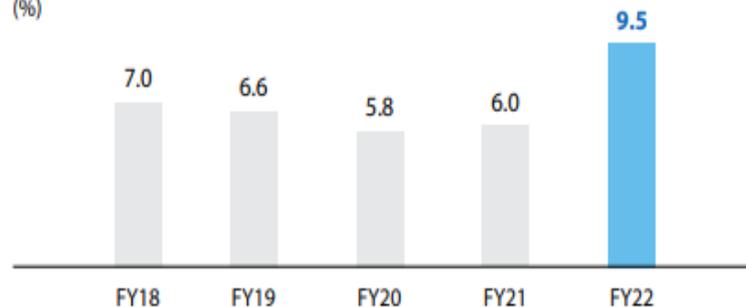
## Net Debt

(₹ in crore)



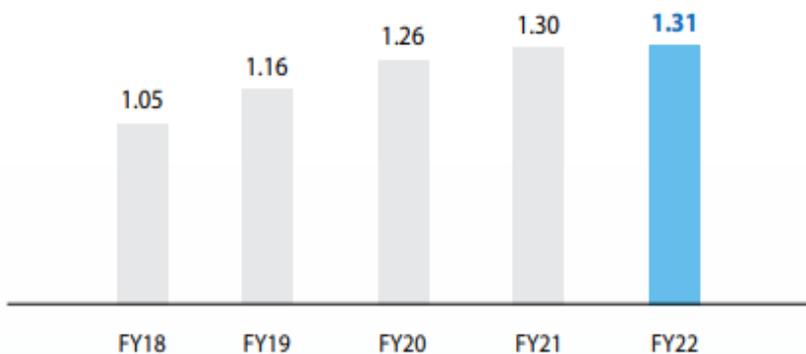
## Return on Average Net Worth (ROANW) - (before exceptional item)

(%)



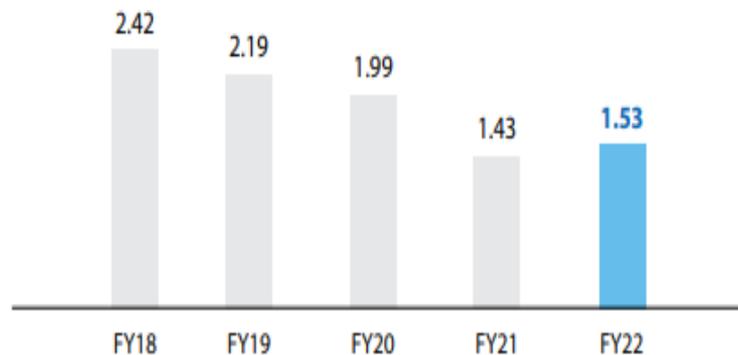
## Interest Coverage Ratio

(No of times)



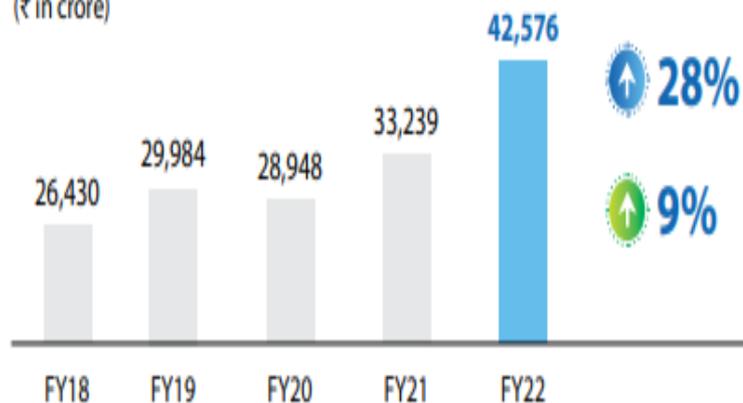
## Net Debt to Equity

(No of times)



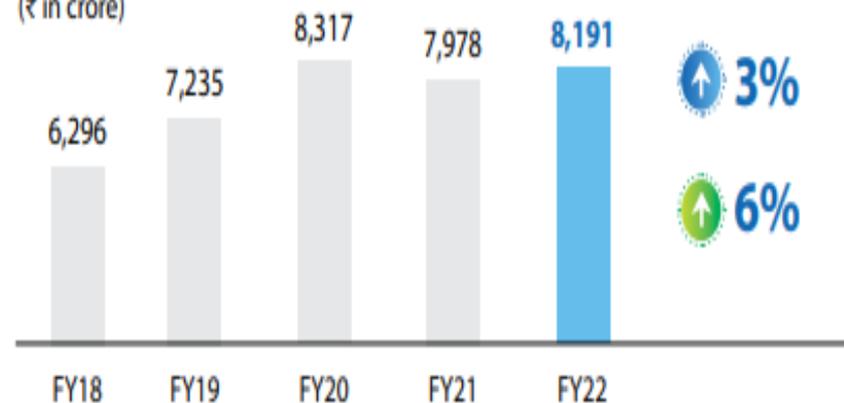
## Revenue

(₹ in crore)



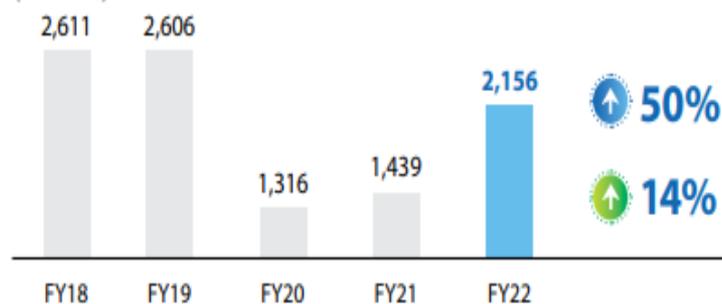
## EBITDA

(₹ in crore)



## Net Profit After Tax

(₹ in crore)

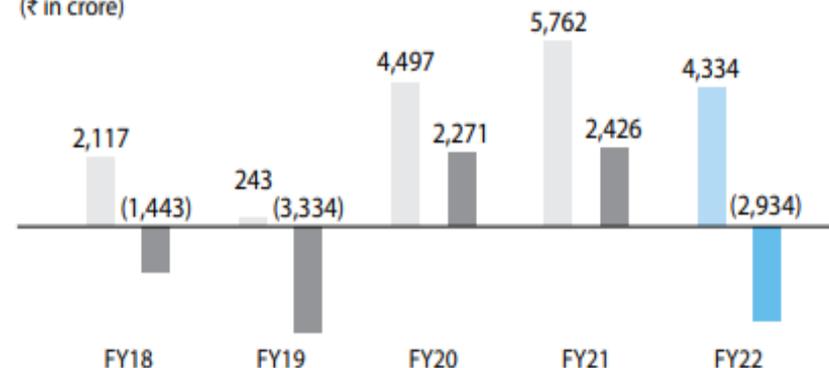


↑ y-o-y growth

↑ 5-year CAGR

## Free Cash Flow

(₹ in crore)



■ FCFBC ■ FCFAC

**Note:** FCFBC=Free cash flow before capex  
FCFAC= Free cash flow after capex

# Financials

- × Tata Power has delivered huge growth in Q1FY23 with 90% YoY increase in consolidated PAT at Rs 884 crore and 48% YoY increase in revenue at Rs 14,776 crore on back of all-round excellent performance across businesses
- × The company's profits have nearly doubled from around 1,230 crore in FY20 to 2,300 crore in FY22, primarily led by higher profits from coal mines in Indonesia because of better price realizations.
- × Under performance at EPC division impacted margin: Consolidated revenue grew by 43.1% YoY to INR145bn, led by strong performance in standalone business (+91% YoY), renewable business (+28% YoY), and healthy demand in Odisha circle. EPC division, however, reported a 30.6% YoY decline in sales due to lower project executions.
- × EBITDA, however, declined 28.2% YoY to INR16.8bn due to a steep rise in coal prices, increased power purchases cost and lower profitability in EPC division (-80% YoY to INR150 mn) due to a rise in module prices. Margin also declined 1150 bps YoY to 11.6% in Q1FY23.

# Financials

- ✘ Rising cells/modules prices impacted EPC profitability: In Q1FY23, the EPC segment's revenue declined by 30.6% YoY to INR13.5bn, due to low execution of large projects led by change in timelines resulting from rising module prices. The segment's EBITDA also declined 80% YoY to INR150mn due to increased module, cell and other operating expenses. Margin also contracted to 1.1% in Q1FY23 vs 3.8% YoY. Accordingly, EPC division reported a loss of INR330mn vs a PAT of INR221mn YoY. Going ahead, however, margins are expected to improve as new orders are benchmarked with new module prices and, hence, the company would be able to pass on the escalated prices. The order book is strong at INR146.3bn (3.6GW – including recently won 1.7 GW EPC order in Q1FY23), which will be executed over the next 12-18 months.
- ✘ In the recent past, company has offloaded considerable debt from the books through various initiatives including divestment in foreign assets, deploying strategies for input price management and undertaking mergers for better tax efficiency.

# Conclusion

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- ✘ Tata Power is facing some resistance at current levels. Tata Power has delivered robust results and growth numbers. The surge in power demand and high profits through coal venture has increased the company's revenue growth.
- ✘ In the long run, the company plans to fulfill the growing energy demand in India through renewable sources.
- ✘ The company is a leader in most renewable energy segments in the country. It is the leader in rooftop solar installations, solar water pumps and has dominant position in the growing EV charging stations market in India.
- ✘ Their order book looks healthy at present
- ✘ Long-term investors can accumulate on dips. Tata Power is the best placed private player in the power sector.