



November 28, 2023  
BJ/SH-L2/

BSE Limited  
Corporate Relationship Department  
Phiroze Jeejeebhoy Towers  
Dalal Street  
Mumbai – 400 001.  
Scrip Code: **500400**

National Stock Exchange of India Limited  
Exchange Plaza, C-1, Block G  
Bandra-Kurla Complex  
Bandra (East)  
Mumbai – 400 051.  
Symbol: **TATAPOWER**

Dear Sirs,

**Sub: Presentation to Analyst/Institutional Investors**

In terms of Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, as amended, we forward herewith a presentation that will be made today at the Analysts/Investors meet at Bhivpuri Hydro plant.

Yours faithfully,  
**For The Tata Power Company Limited**

(H. M. Mistry)  
Company Secretary

**TATA POWER**

**The Tata Power Company Limited**

Registered Office Bombay House 24 Homi Mody Street Mumbai 400 001

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# The Tata Power Company Limited (TPCL)

ANALYST MEET 2023

28 NOVEMBER 2023

*Powering India Today and Tomorrow*



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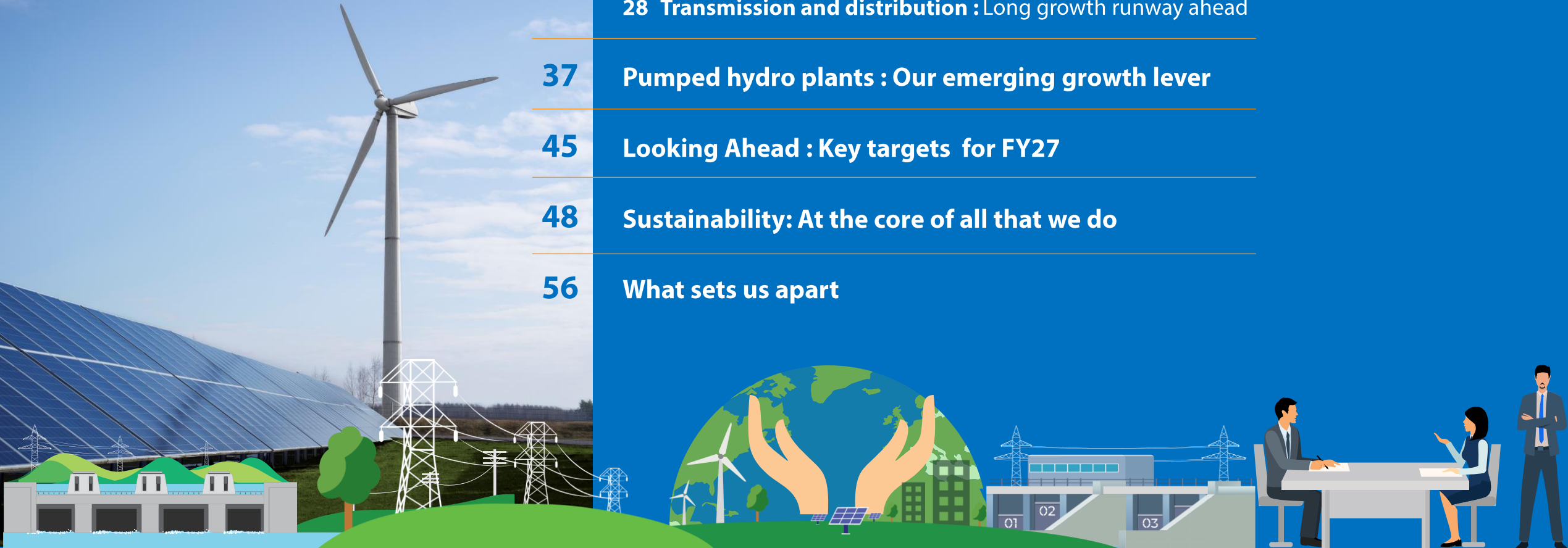
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# Agenda

- 04** The Tata Power story
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**The Tata Power story**



# India's largest vertically-integrated power company

**9,281 MW**

Clean & Green Energy  
(Including 3,760MW in pipeline)

**8,860 MW**

Thermal energy generation  
(Installed capacity)

**5,713 Ckm**

Transmission capacity  
(Including 1,330Ckm in pipeline)

**12.4 Mn**

Total distribution  
customers served

**2.8 GW**

MoU signed for Pumped  
Hydro Project (PSP)

**>₹18,700 cr**

Solar EPC order book- Large  
Scale Utility, Group Captive  
and Rooftop EPC

**~4.9 GW**

Manufacturing capacity including  
4.3GW each of Cell & Module  
operational/under construction

**>11.5 GW**

EPC large projects executed  
and under pipeline

**>4,900**

Public EV charging points  
energised across 442 cities  
and towns

## New-age Energy Solutions



## Generation



## Renewables

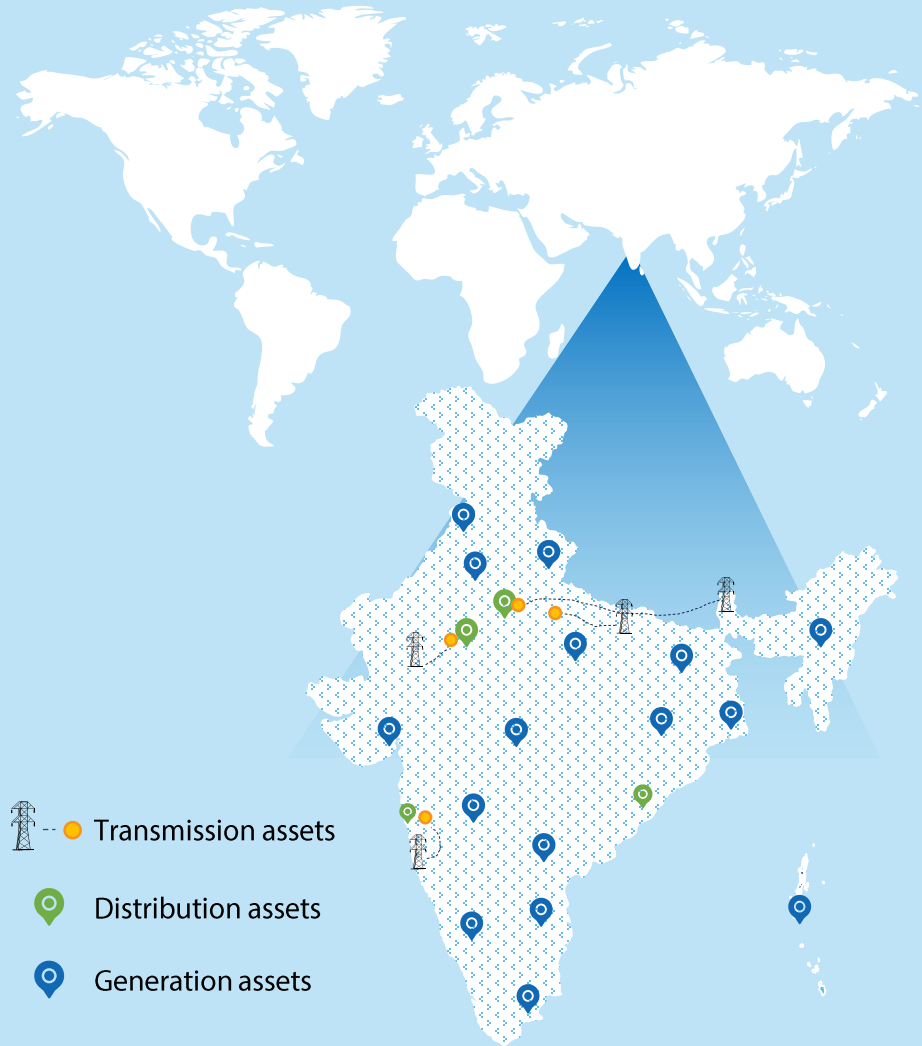


## Transmission and Distribution





## Assets spread across India...



### Capacity Mix (Domestic + International)

**14,381 MW**  
Total

**8,860 MW**  
Thermal

**1,007 MW**  
Wind

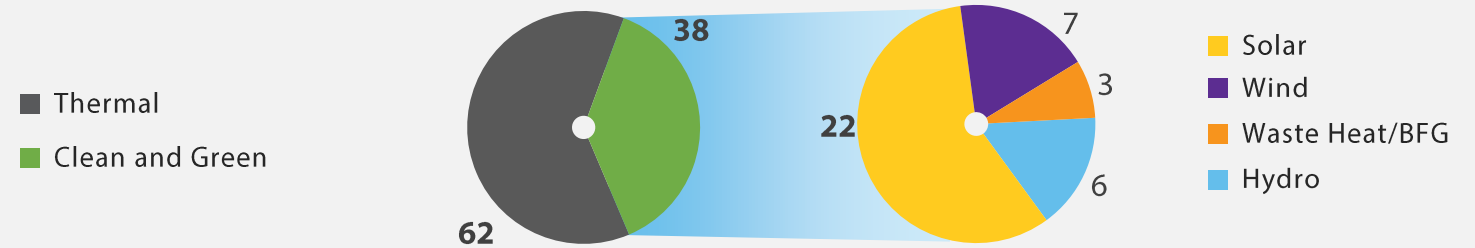
**880 MW**  
Hydro

**443 MW**  
Waste Heat  
Recovery /BFG

**3,191 MW**  
Solar

**3,760 MW**  
Renewable capacity  
under construction

### Distribution of installed capacity (Domestic & International) (%)



### Transmission and Distribution

**12.4 Mn**  
Customers in  
Distribution

**4,383 Ckm**  
Transmission

**906 Ckm**  
Transmission pipeline  
under construction

**424 Ckm**  
L1 (lowest) bidder



## ... as well as a few Global locations

Georgia, Adiaristgali

**187 MW**  
Installed capacity

**50%**  
TPCL stake

Zambia, Itezhi Tezhi (ITPC)

**120 MW**  
Installed capacity

**50%**  
TPCL stake

Bhutan, Dagachhu

**126 MW**  
Installed capacity

**26%**  
TPCL stake

Indonesia Coal Mines

**78 MT**  
Total Capacity



Hydro



Coal Mines

Coal mines	Tata Power Share %
Kaltim Prima Coal (KPC)	30%
Baramulti Suksessarana (BSSR)	26%
Antang Gunung Meratus (AGM)	26%

### Tata Power Indonesian Coal Mines\*

Operational Parameters	KPC	BSSR	AGM
Production (MT)	50.1	5.3	12.6
Sales (MT)	48.5	5.1	12.3
Financial Parameters			
Revenue (USDm)	6,791	371	813
EBITDA (USDm)	1,669	150	213
*PAT (USDm)	1,140	110	153

\*FY23 operational and financial numbers on a 100% basis.

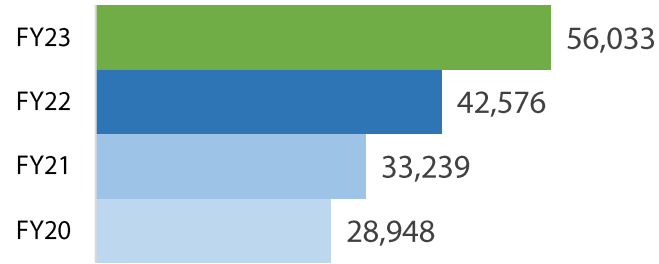


## Generating consistent value over the years...

**Revenue** (₹ in Cr)

**30,446**

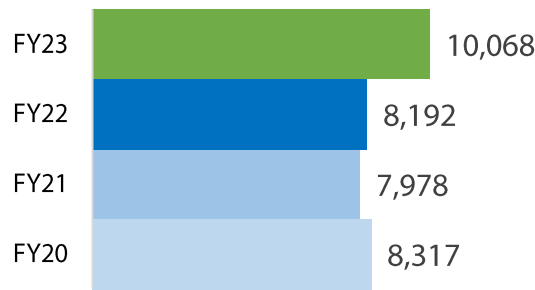
H1FY24



**EBITDA** (₹ in Cr)

**6,092\***

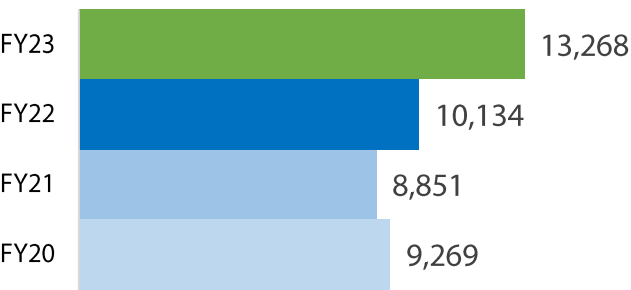
H1FY24



**Underlying EBITDA**(₹ in Cr)

**6,694\*\***

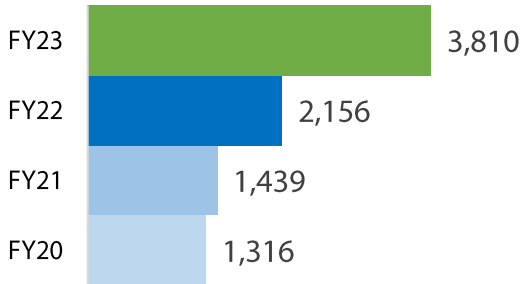
H1FY24



**Reported PAT<sup>^</sup>** (₹ in Cr)

**2,158**

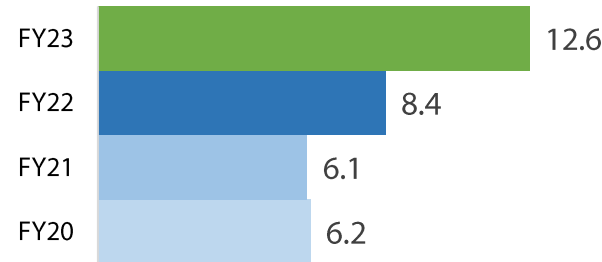
H1FY24



**ROE (%)**

**12.3**

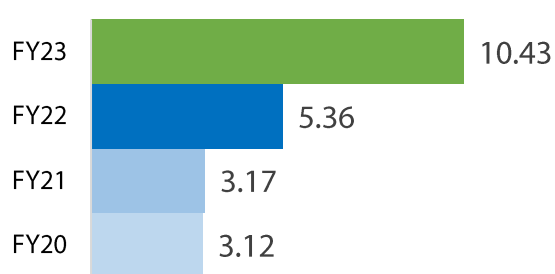
H1FY24



**EPS (₹)<sup>^^</sup>**

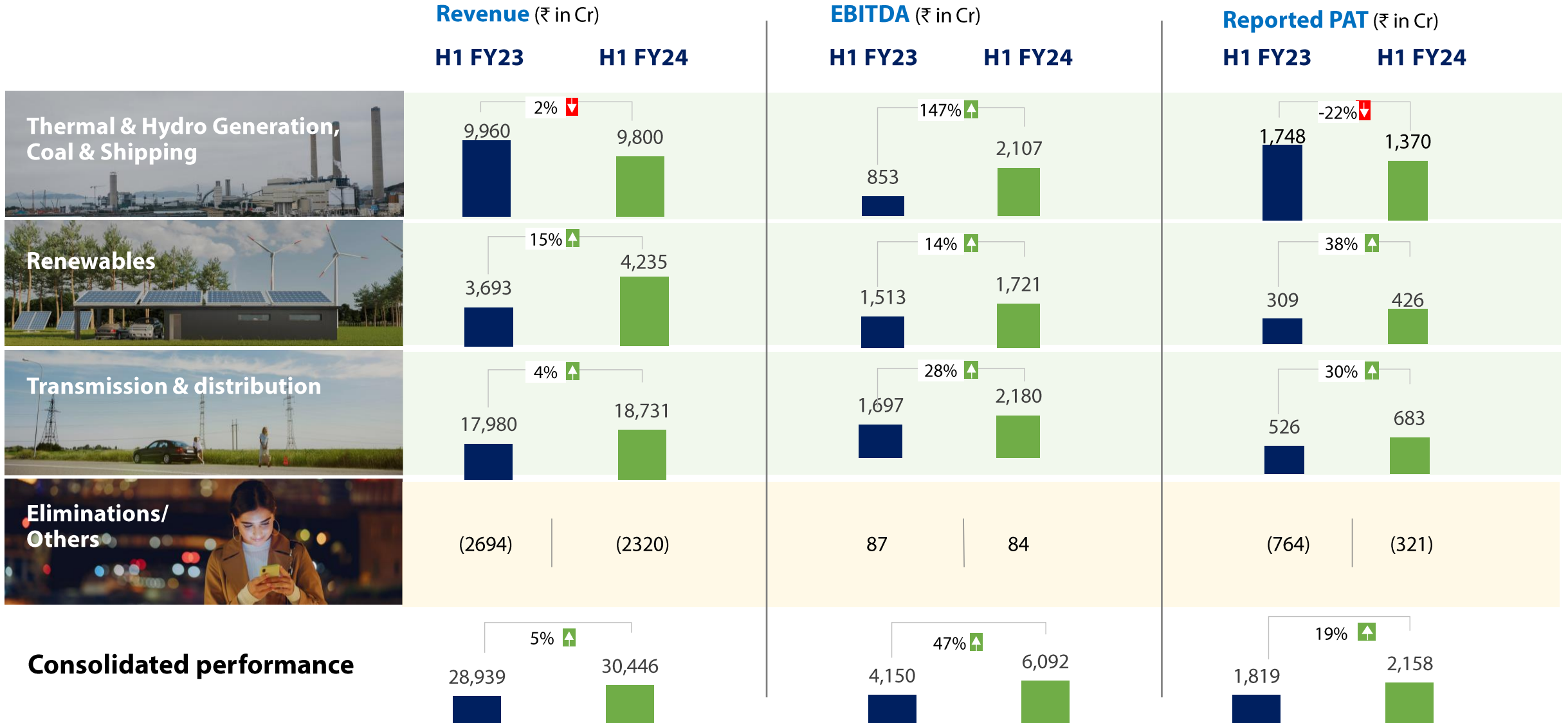
**5.78**

H1FY24



\*Including other income | \*\*Including Share of JV's and Associates | ^ Before Minority Interest | ^^ Not Annualised

## ...with rising contribution from our Core businesses\*

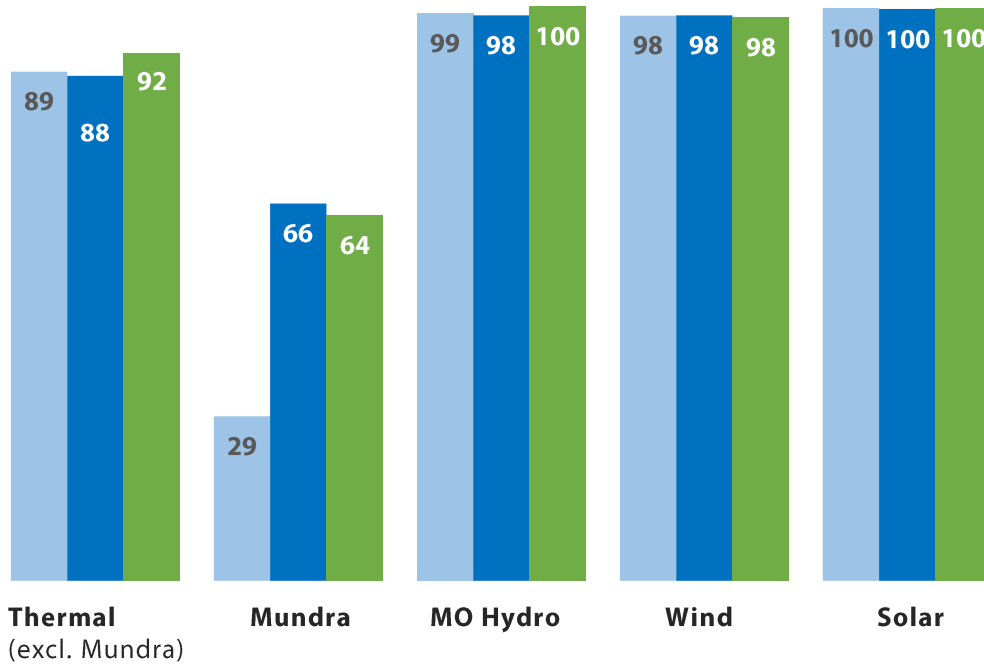


\*Coal, Overseas Hydro Assets, Stake in Tata Projects & Nelco considered as Non-core

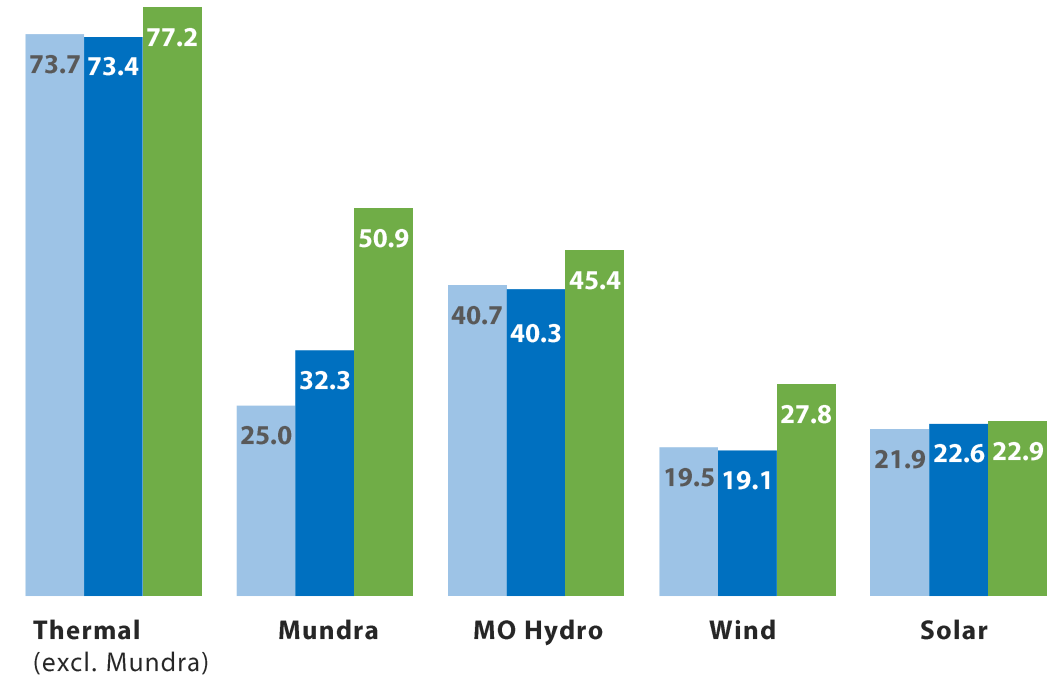


## Operational excellence fueling benchmark results

### Generation availability (%)



### Plant load or capacity utilisation factor (%)



FY22 FY23 H1 FY24

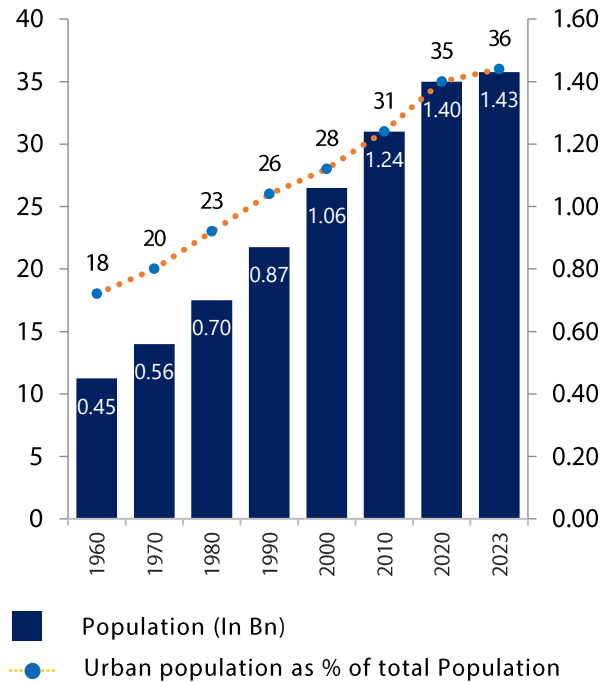


**Indian power sector: Witnessing strong tailwinds**



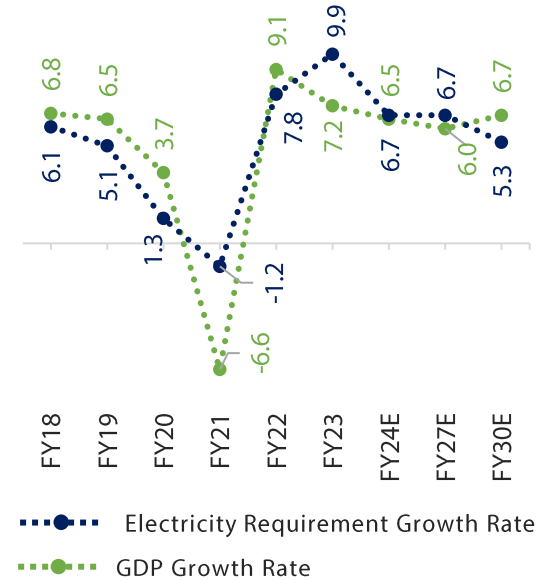
# The power sector is set to grow as India grows

## Rising population and urbanisation to drive demand



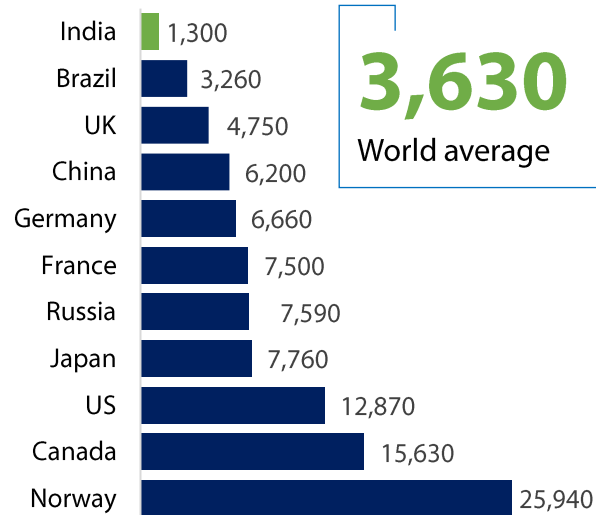
Source: Worldometer

## Strong Correlation seen between GDP and Power Demand growth (%)



Source: CEA, RBI, IMF, S&P

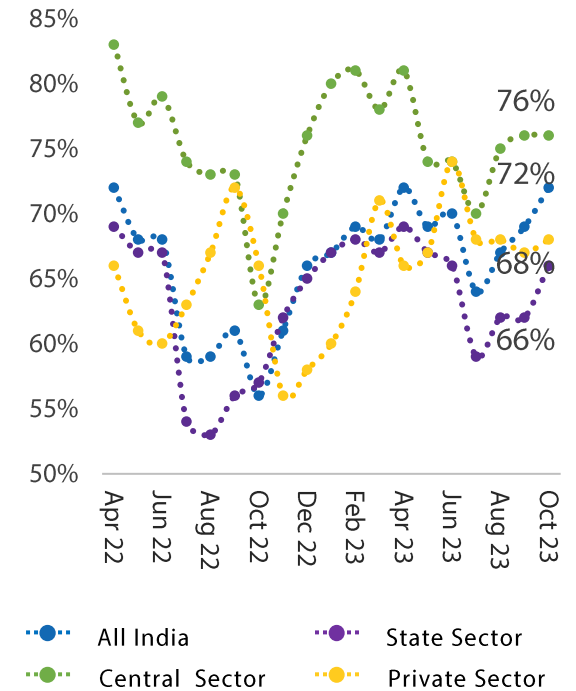
## India has one of the lowest power consumption per capita (in units)



Data represents per capita power consumption for CY22

Source: ember-climate.org

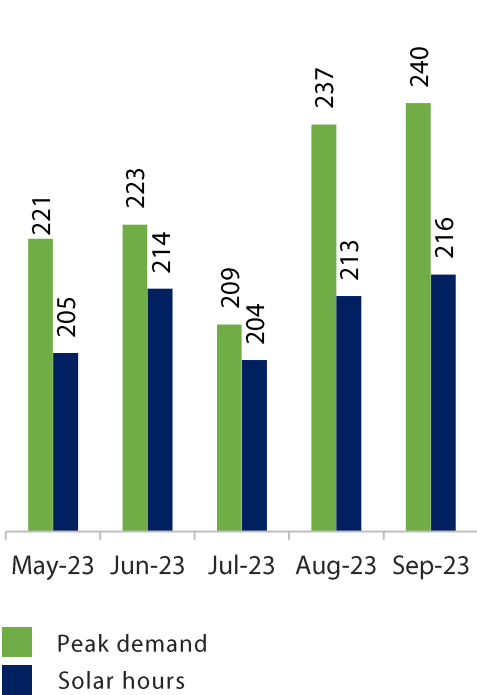
## All India coal-based generation Plant Load Factor (PLF) (%)



Source: NPP

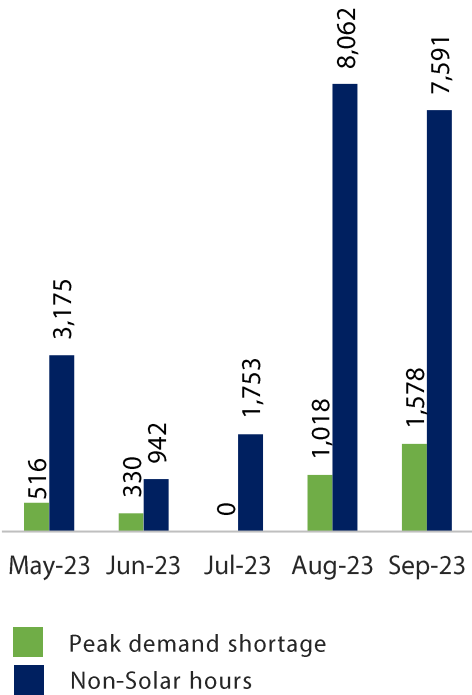
# Rising power demand has resulted in power deficit inching up, especially during non-solar hours

Peak demand in solar hours (GW)



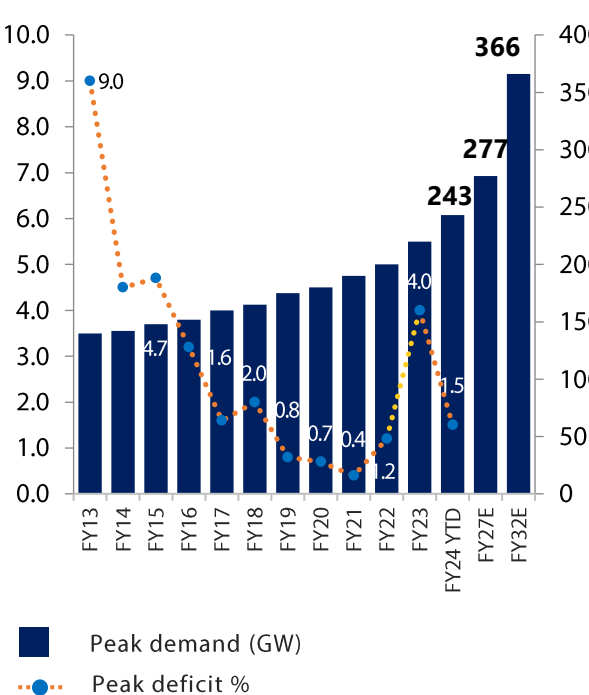
Source: Avendus Spark research

Peak demand shortage in non solar hours (MW)



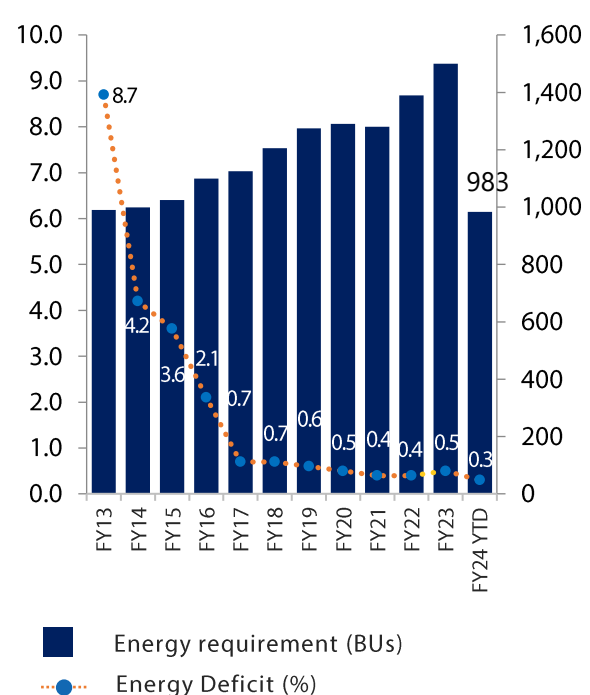
Source: Avendus Spark research

Peak demand (GW) and Peak power deficit (%)



Source: CEA, EPS

Energy requirement (BUs) and Energy Deficit (%)



Source: CEA



**TATA** POWER

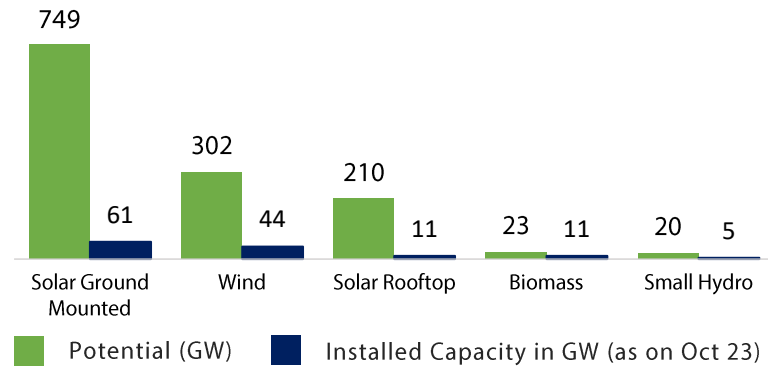
# Renewable energy

Our key growth driver



# Clean & Green Energy to lead the way as India targets 500GW RE capacity by 2030

## Immense Potential compared to currently Installed capacity of 132 GW\*



## Huge untapped Renewable resource potential in India

~749 GW

Solar

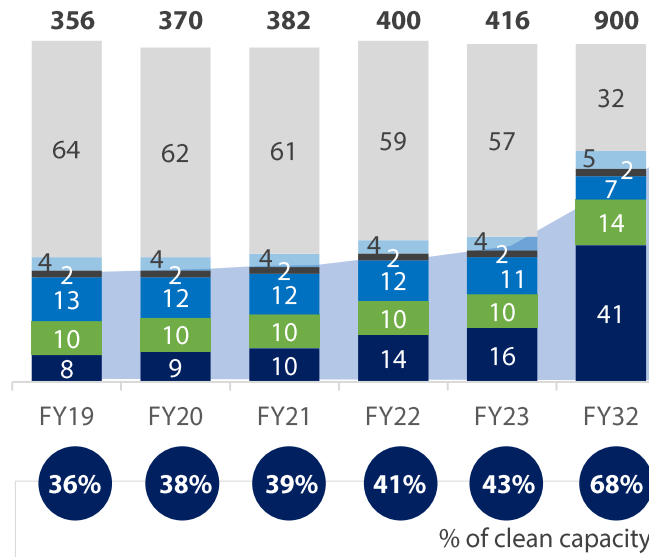
~302 GW

Wind

Source: MNRE

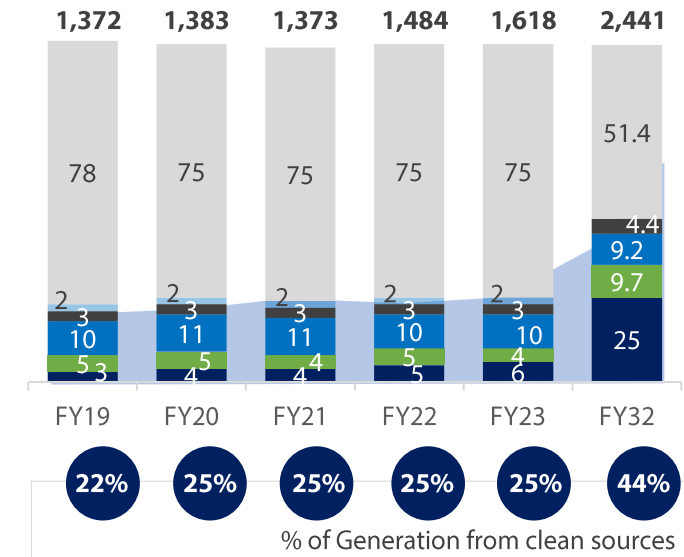
\*Excludes large Hydro Capacity of 47GW

## Clean & Green to account for 68% of capacity in 2032 from 43% in FY23



Source:- CEA, NEP

## Clean & Green to account for 44% of Generation (TWh) in 2032 from 25% in FY23





# Strong Pipeline: 500GW 2030 target implies ~45GW Capacity additions each year on an average

**500 GW** by 2030

Aspirational capacity addition target

**179 GW**

Installed by Oct, 2023

72 GW Solar      44 GW Wind  
11 GW Biomass      5 GW Small Hydro  
47 GW Hydro Power

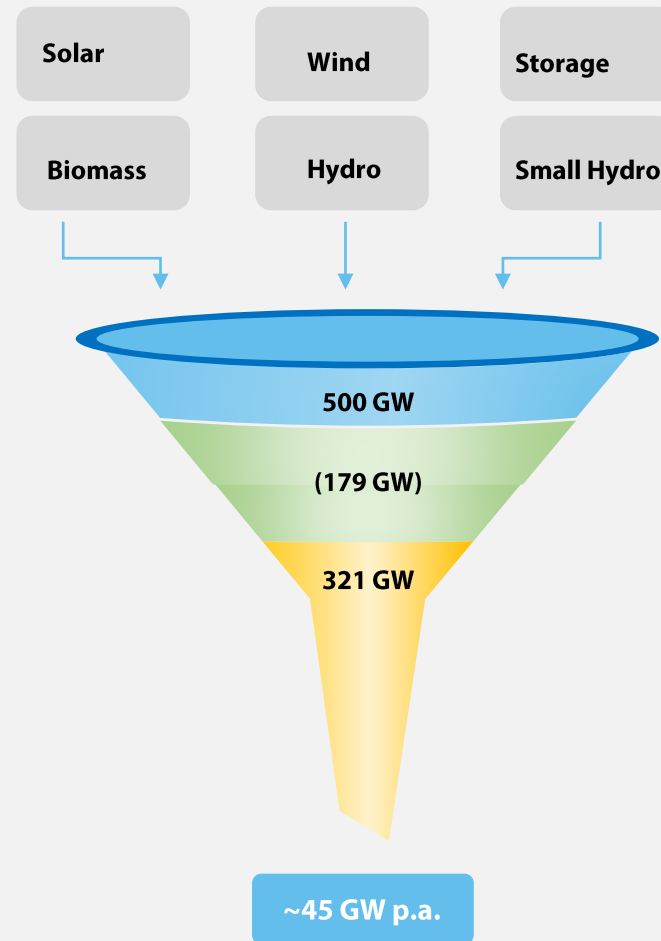
**In pipeline**

97 GW of projects under implementation

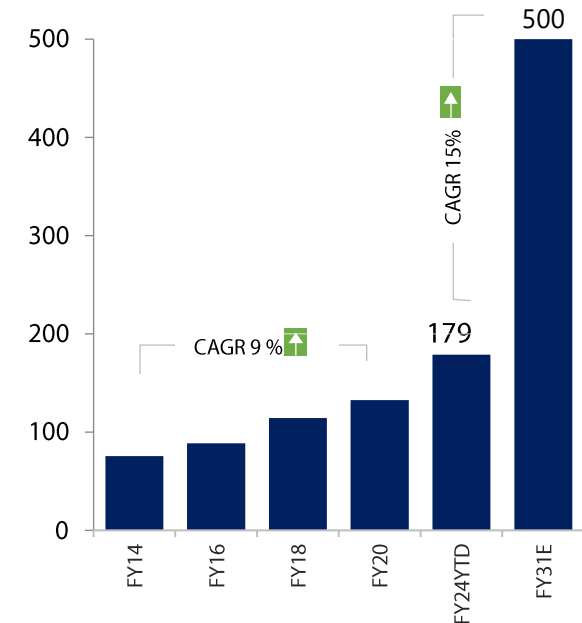
**224 GW**

Auctioning needed until 2028\*

\*to reach 500GW installed capacity by 2030

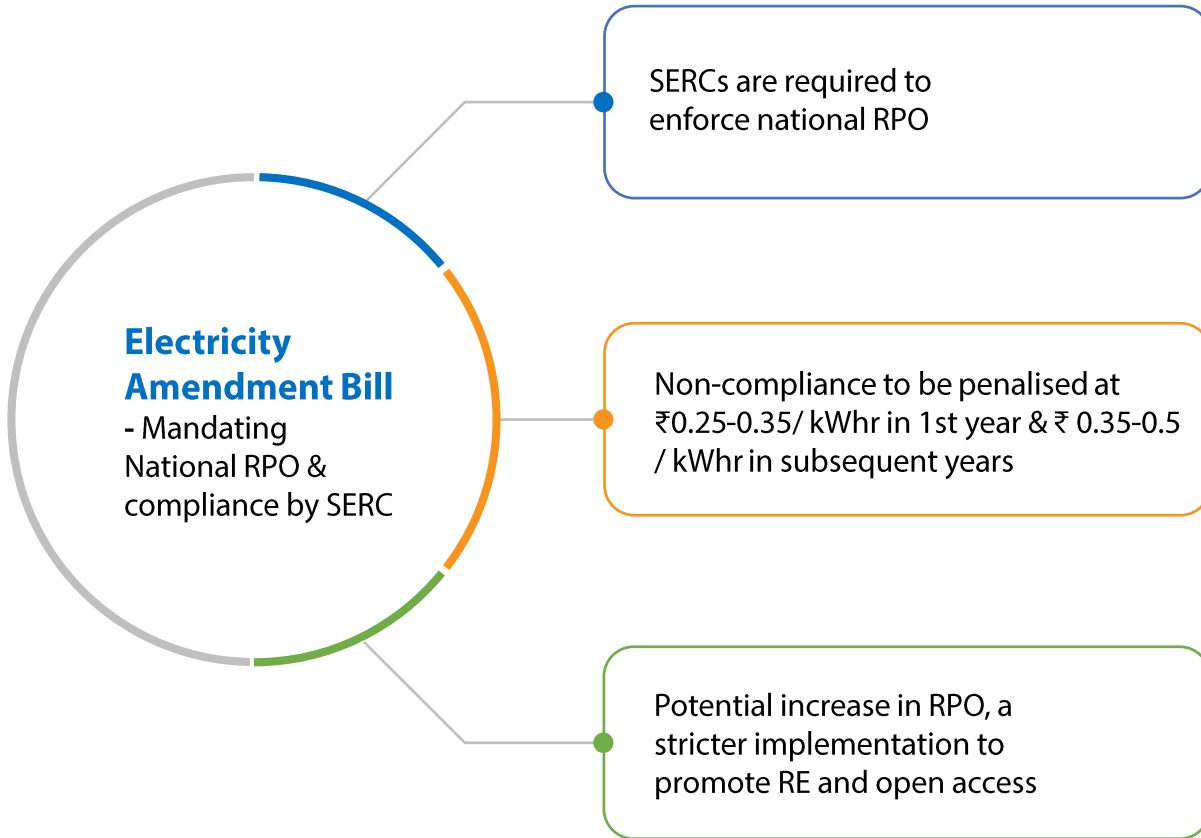


## Renewable energy capacity target of 500 GW by 2030



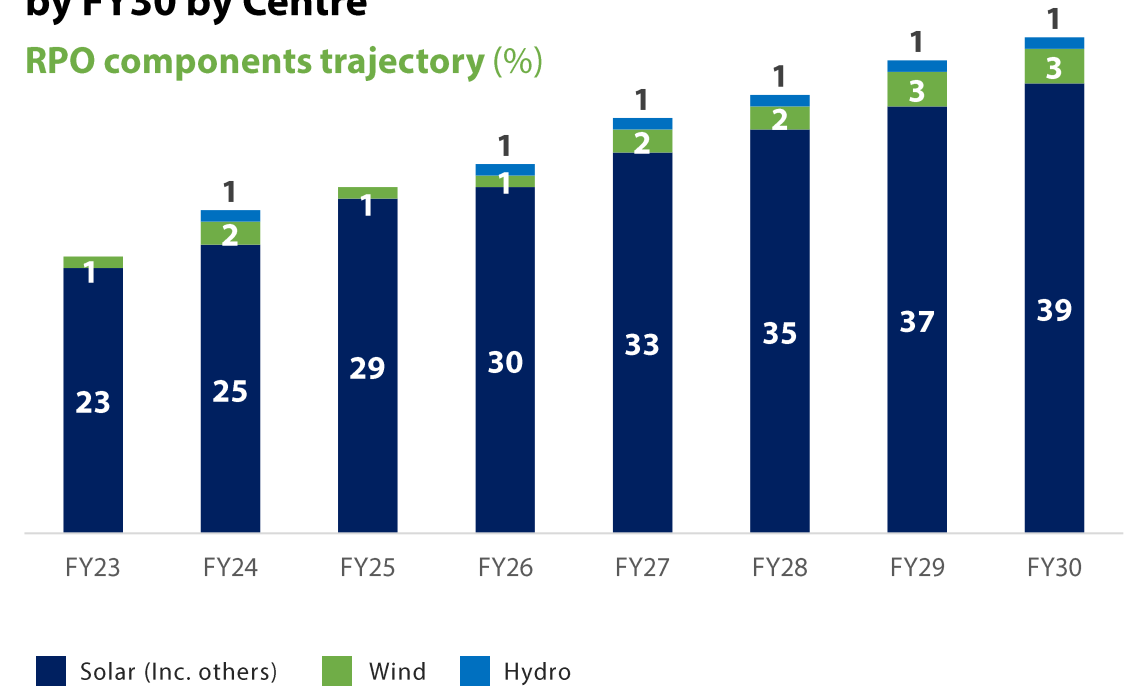
Source: Nuvama Research

## RPO\* to spur renewable adoption on the demand side



### RPOs to be increased from 25% in FY23 to 43% by FY30 by Centre

#### RPO components trajectory (%)



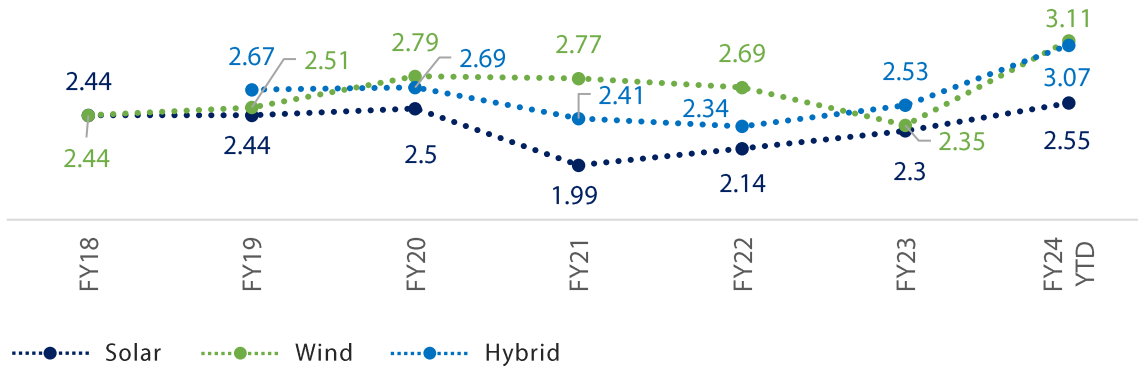
Source: Ministry Of Power (MoP)

\*Renewable Purchase Obligation (RPO)



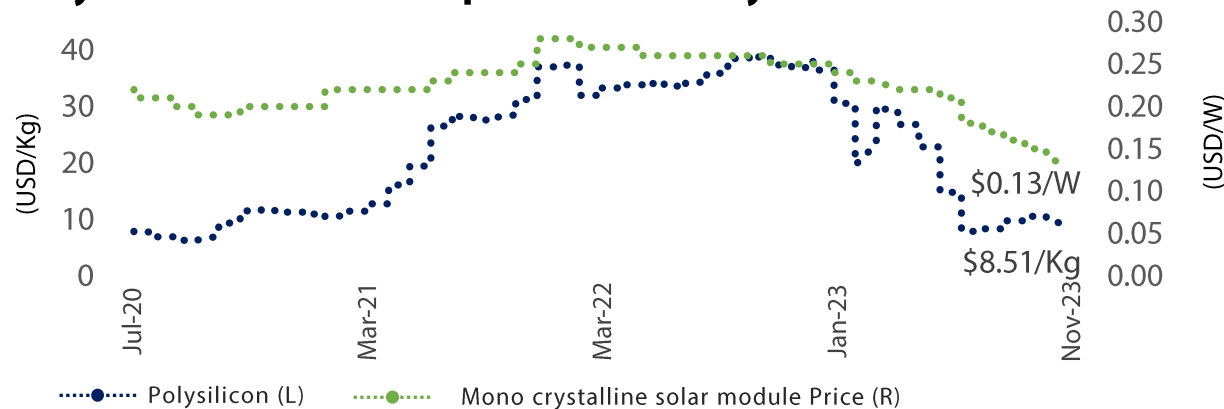
# Record-low module prices and attractive RE tariffs should boost RE capacity additions

## Minimum e-auction tariff in India



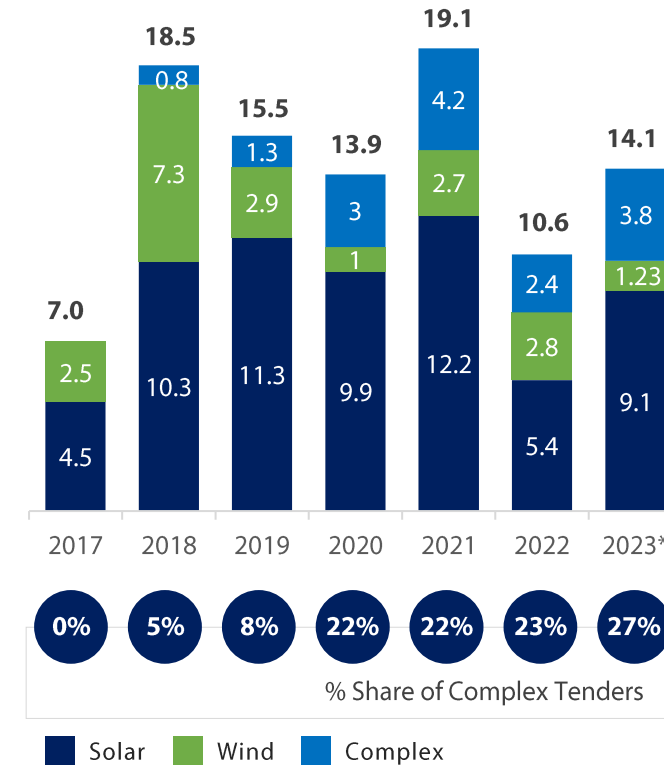
Source: CEA, Bloomberg, Avendus Spark Research

## Polysilicon and module prices at multi-year lows



Source: Nuvama

## Renewable energy auction volumes (GW)



\*As on Jul 2023

Source: BNEF- India's Renewable Energy Auctions 2022 Roundup, BTI RE Navigator

# Clean & Green capacity target: >20GW by 2030, accounting for 70% of total

## What we have achieved

**>5.5 GW**

Clean and green Capacity

**>3.7 GW**

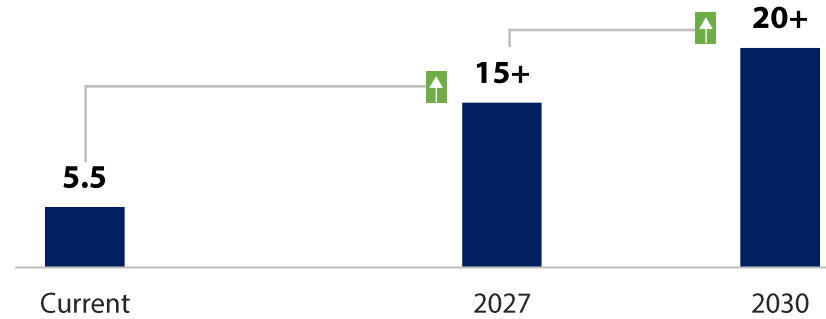
Under construction

## What we wish to achieve

**>20 GW**

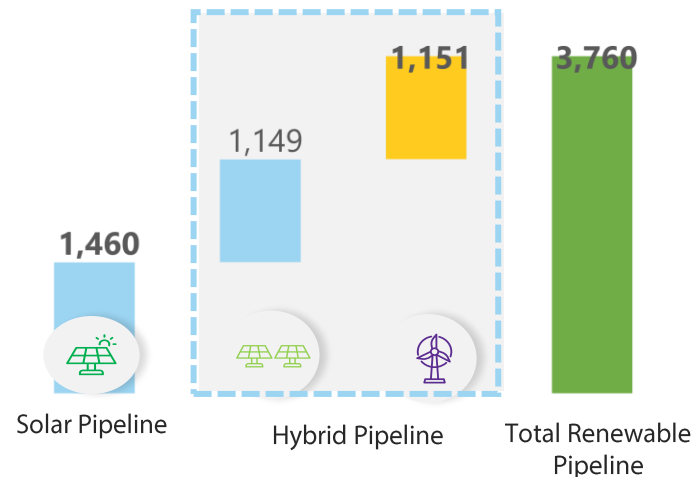
(70% by 2030 and 100% before 2045)  
Clean and Green Capacity

## Targeting 15GW+ Clean & Green Capacity by 2027 (GW)

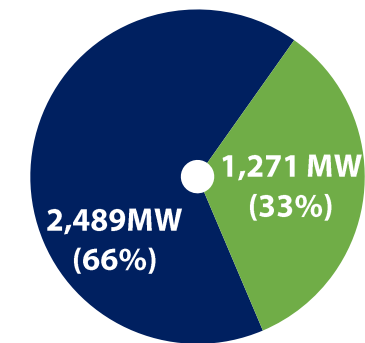


Source: Tata Power Estimates

## Renewable capacity pipeline (MW)



## Group Captive accounts for a third of RE Pipeline



■ Large Utility ■ Group Captive

# TPSSL revenues to rise with declining contribution from third-party EPC

**What we have achieved**

**4,391\*** MW

Order Book

**>₹18,700\*** Cr

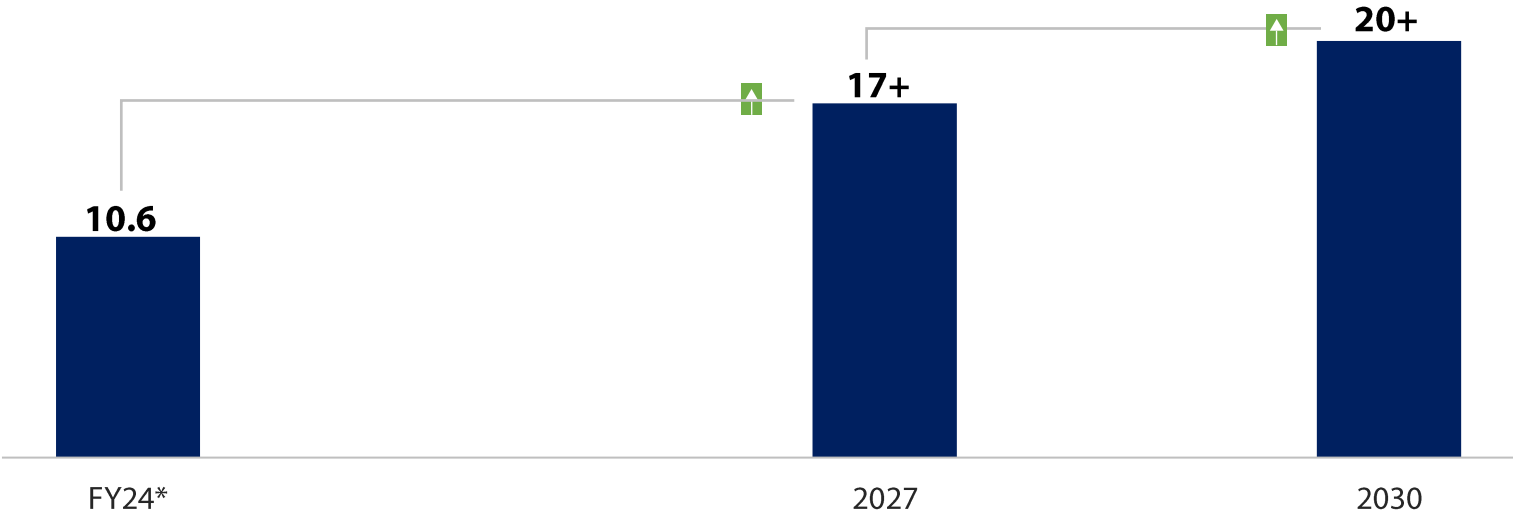
Order Book

**What we wish to achieve**

**>₹20,000\*** Cr

Revenue in FY30

**₹17,000Cr+ Revenue projected for FY27 with rising share from Captive projects (₹ '000 cr.)**



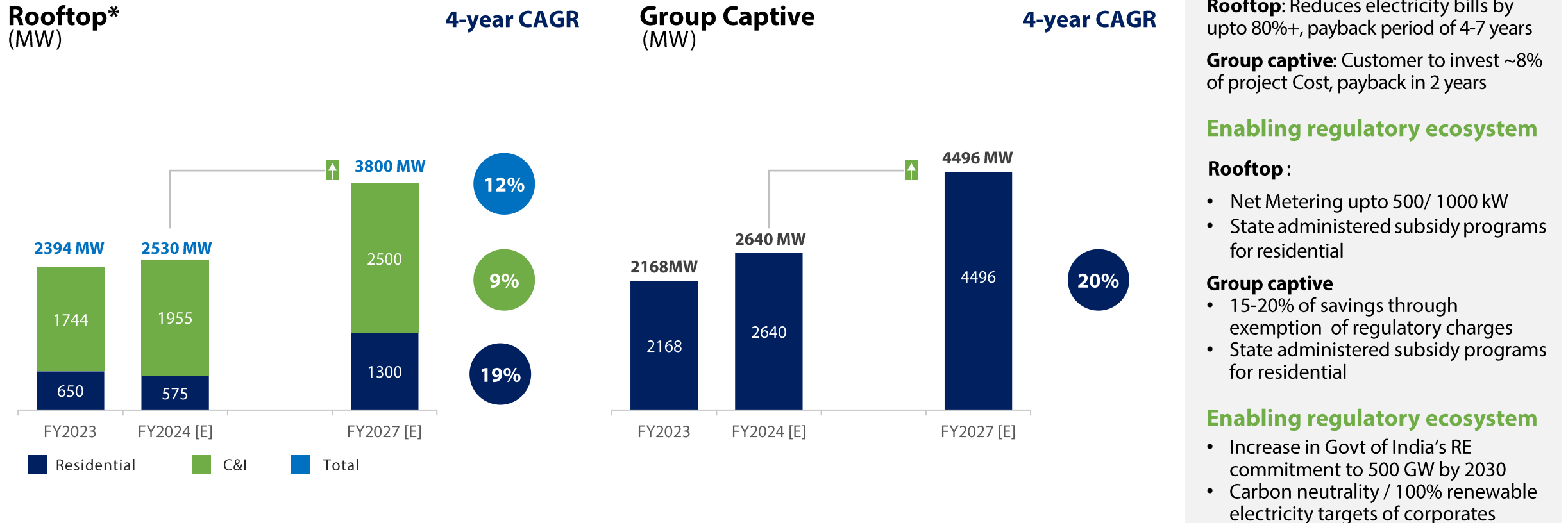
\*Trailing 12-months

\*Includes large scale utility, residential, C&I as well as group captive  
As on 30 September, 2023



# Annual additions of Rooftop & Group Captive in India – Adding to RE growth story

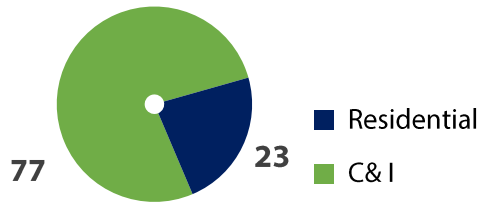
**Strong offtake across segments; 19% CAGR in residential and 20% for Group Captive till FY27**



Note: Market estimates as per Bridge To India research, Tata Power estimates

\*Rooftop segment includes Commercial & Industrial (C&I)

**404 MW Rooftop capacity  
added in FY23 (%)**



A pie chart illustrating the distribution of respondents by sector. The chart is divided into two segments: a dark blue segment representing 'Residential' at 21%, and a green segment representing 'C&I' at 79%.

Sector	Percentage
Residential	21
C&I	79

- ## VARIED OFFERING

- Presence across all customer segments
- EPC + Opex Models
- Solutions from 1 kW to multiple MW, powering 5K+ C&I, 43K+ residential customers

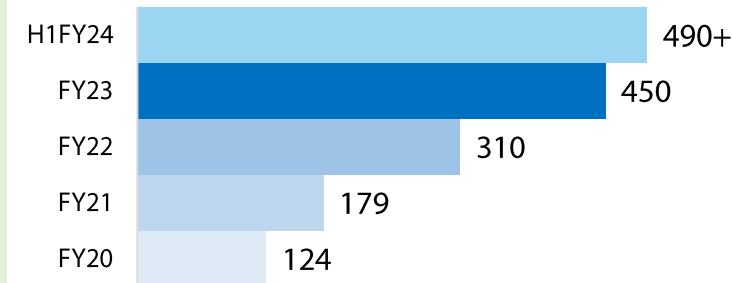
- Multiple tie-ups offer several options to customers
- Innovative products such as Instant EMI; term loan, etc.
- Collateral free, quick financing

- Value-added offerings: Bundling with roofing solutions,
- Performance analytics
- Innovative Premium products

- 490+ Channel Partners (CPs) as on date – covering 275+ towns
- ~44% of FY23 revenue from CPs
- Customer referral and social influencers



## Channel partner network growth



## Tata Power EZ Charge- Only CPO\* in India to operate across four segments



### Home Charging

**Brief**-Tie-up with OEMs for home charging installations for their customers

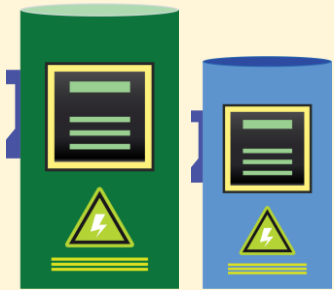
**Services**-Installation & commissioning Service



### Fleet Charging

**Brief**-Tie-up with fleet operators for either deployment of charging infrastructure or accessibility of public charging stations

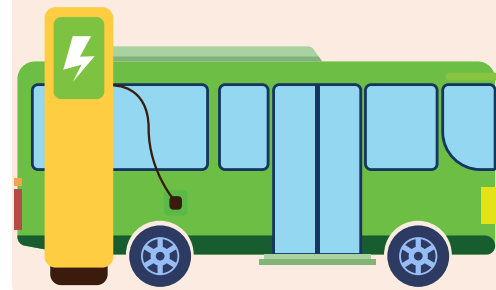
**Services**-Deployment of EV chargers in dedicated hub for fleet cars



### Public Charging

**Brief**-Dependence on the current EV penetration and current utilization of the EV users

**Services**-Deployment of EV chargers in Public & Semi-Public Locations



### Bus Charging

**Brief**-Tie-up with bus OEMs for deployment of charging infrastructure for their bus supplies/Govt. deals for e-bus chargers

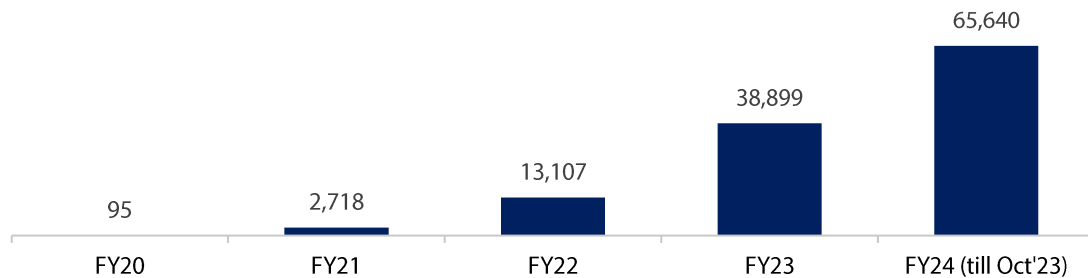
**Services**- Deployment of EV chargers in STU depots for Buses

\*Charge Point Operator



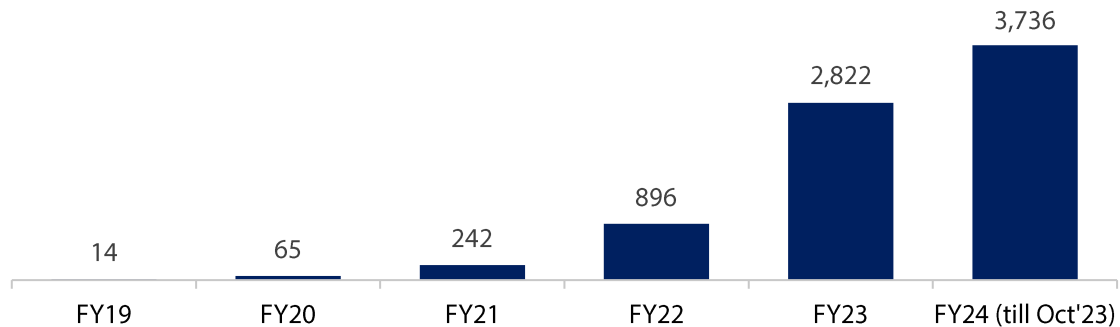
## Tata Power EZ charge- Stellar growth in home and public charging segments

### Home charging installation



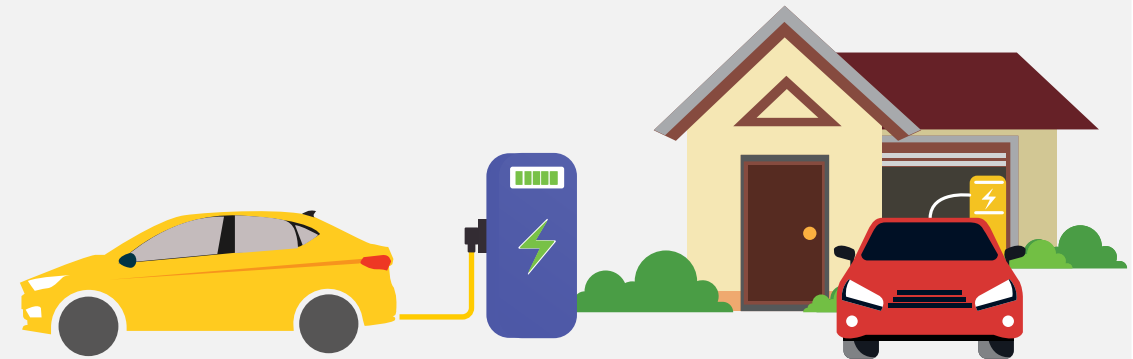
Source: Tata Power Estimates

### Public charging stations



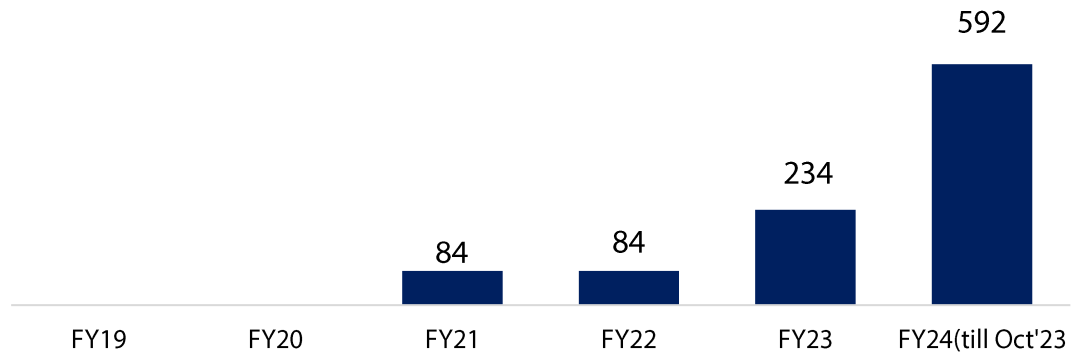
Source: Tata Power Estimates

- Market leadership in public charging segment with ~55% share and ~85% share in home charger installations
- Exponential growth in-line with increasing EV adoption over the last 2 years
- Partnership with OEMs and fleet players leading to assured utilization and revenue



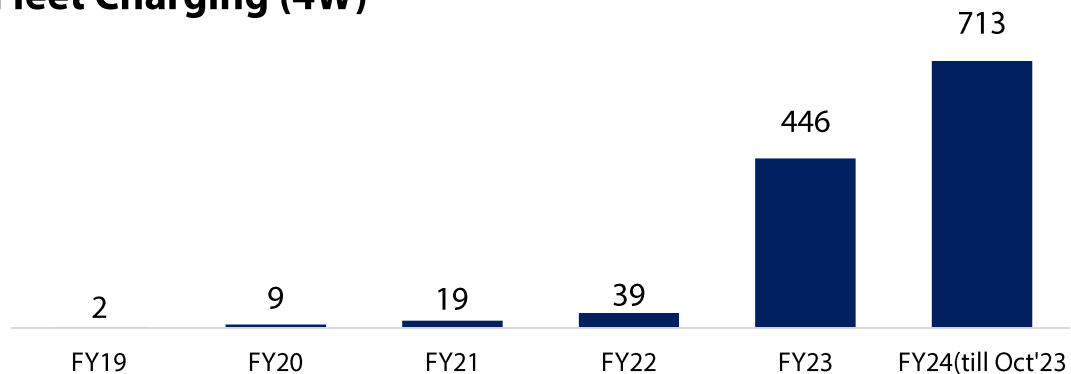
## Tata Power EZ charge: Stellar growth in E-bus and fleet charging segments

### E-bus Charging Stations



Source: Tata Power Estimates

### Fleet Charging (4W)



Source: Tata Power Estimates

- Segment with assured utilisation and revenues/profitability
- Over 100% growth in first 8 months of FY24 in bus segment and 60% in fleet segment, healthy pipeline in execution
- Huge E-bus charging opportunity through PM E-bus Sewa programme, to introduce 10,000 electric buses to the city bus service across India
- Fleet opportunities in employee transportation services and mid & last mile delivery segment



# Tata Power EZ Charge: Targeting >10k Public and >200k Home chargers by FY28

## Catering to every segment



**4,900+** Public, Semi-public and Captive CPs



Energized more than **442+ cities & towns**



**460+** Ultra high Capacity Bus Chargers energized in multiple cities



**65,000+** Home Chargers installations



Award winning Advanced Software Platform and Mobile Application

**Largest Player in the Country in Public Charging Space**

Current presence in **442+ cities & towns**  
**Largest by any CPO**

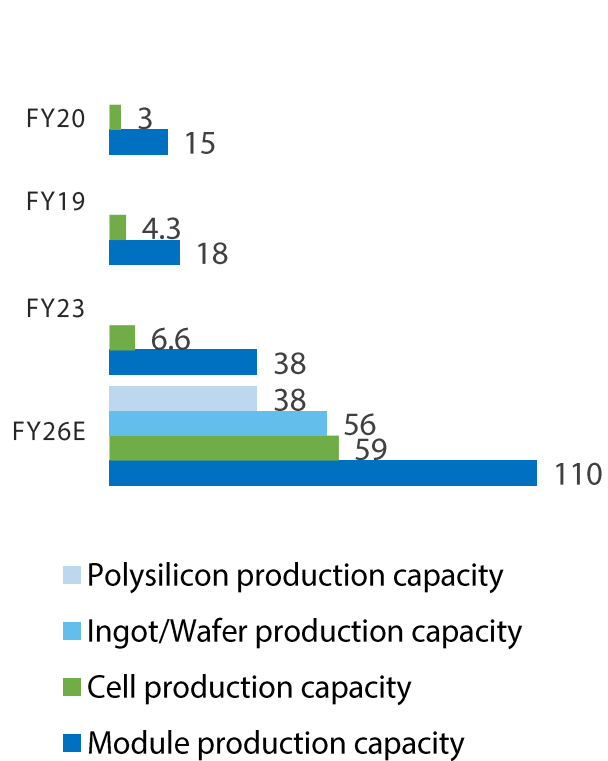
## Differentiated strategy for the 3 businesses

	Home Charging (Private 4W)	Captive Charging (Shared 4W & Bus)	Public Charging (Private & Shared 4W)
<b>Tata Power green strategy</b>	<ul style="list-style-type: none"> <li>~85%+ of Home Charging market</li> <li>Partnership with OEMs as preferred service provider</li> </ul>	<ul style="list-style-type: none"> <li>~40% of Fleet 4W &amp; Bus Charging market</li> <li>Contracts with 4W fleets/Bus OEMs with minimum usage guarantee</li> </ul>	<ul style="list-style-type: none"> <li>~55% public charging market share</li> <li>Post FY24, <b>asset-light aggregator</b> of franchisee operators</li> </ul>
<b>Rationale</b>	<ul style="list-style-type: none"> <li>Enables <b>customer acquisition</b> from personal EV owners</li> </ul>	<ul style="list-style-type: none"> <li>Builds <b>network presence &amp; operating know-how</b> with low risk</li> </ul>	<ul style="list-style-type: none"> <li>Enables capturing <b>leading share</b> of public charging &amp; data</li> </ul>
<b>Growth outlook</b>	<b>&gt;200,000 Home Chargers by FY28</b>		<b>&gt;10,000 Charge Points (CPs) by FY28</b>
<b>Partnerships</b>			



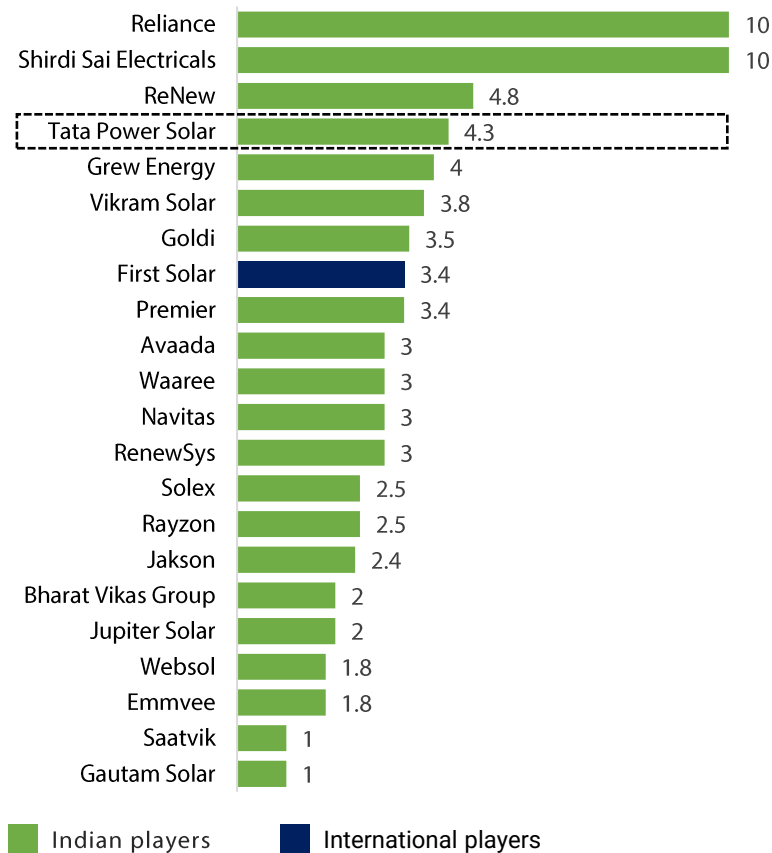
# Contributing to India's Atmanirbhar ambition with our 4.3GW Cell & Module facility in Tamil Nadu

**Estimated capacities expected to ramp-up by FY26 In India (GW)**



Source: JMK Research

**Proposed addition of Module capacity by large manufacturers (>1GW) by 2026**



Source: JMK Research

**Tata Power's first module out from 4.3 GW of Cell & Module**



First Cell production scheduled in Q4FY24  
 Total Capex of around Rs. 4,000Cr

**TATA** POWER

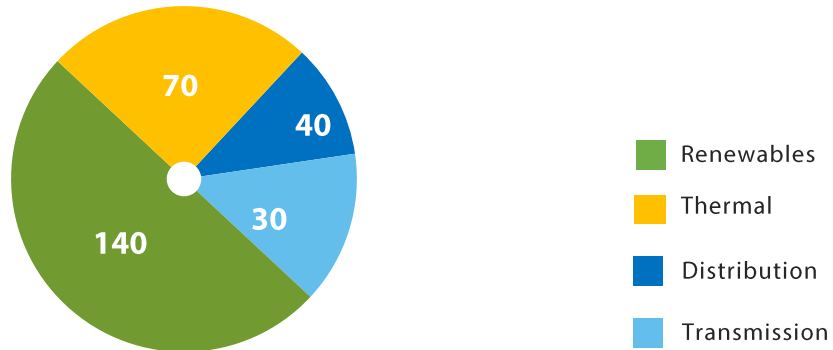
# Transmission and distribution

Long runway for Growth



## Indian transmission: A USD30 Bn opportunity (till FY30)

**USD30 Bn transmission Capex anticipated between FY24-30E (USD Bn)**



Source: Jefferies

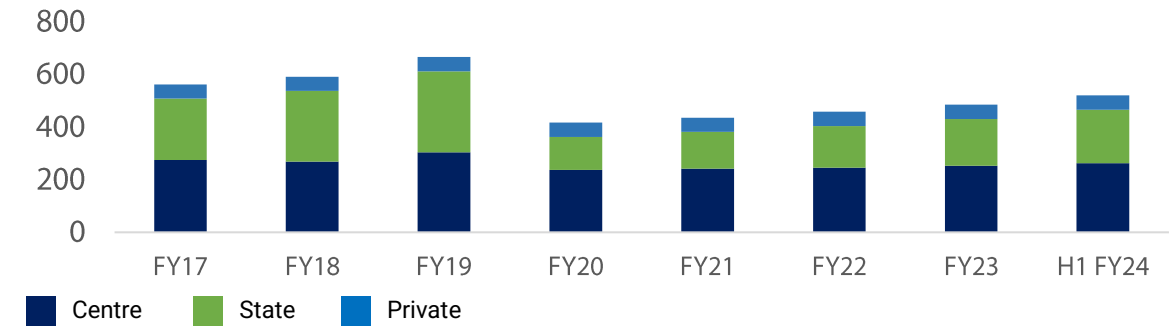
### TBCB opportunity

	Trans. Lines	Sub-station capacity
As on FY23	4.7 lakh Ckt. Km	11.8 lakh MVA
Additional opportunity by 2030	50,890 Ckt. km.	4.3 lakh MVA

Source: MOP, CEA

### Pickup in transmission lines installation

Transmission lines (in Ckt km)



Source: CEA

- As a significant step towards successfully achieving 500 GW of RE capacity by 2030, the Ministry of power has outlined a systematic planning of transmission system which envisages huge-inter transmission opportunities till 2030
- Most of these projects will be bid through TBCB route, thereby, presenting a huge opportunity for the private players



## Tata Power - Recent wins to expand Tata Power's transmission portfolio

### What we have achieved

**4,383 Ckm**

Operational Capacity

**906 Ckm**

Under construction  
Total Capex: ₹1,610 Cr

**424 Ckm**

Declared L1 bidders  
Total Capex: ₹2,294Cr

### Declared L1\* on 4<sup>th</sup> October 2023

#### Project:

Jalpura Khurja Power  
Transmission Limited (80 Ckm)

#### Project Brief

- Construction and O&M of 400 kV substation at Greater Noida and Jalpura in Uttar Pradesh
- Line in line out (LILO) of 400 kV line at Greater Noida substation and construction of 400 kV line from Jalpura substation to Tehri Hydro development corporation (THDC) Khurja Thermal Power Plant (TPP)

Capex: ₹750Cr

### Declared L1\* on 7<sup>th</sup> November 2023

#### Project:

Rajasthan Phase IV Part C (344 Ckm)

#### Project Brief

- Bikaner-III - Neemrana-II 765 kV D/C line (2nd)
- 765 kV 110 MVAR switchable line reactor – 6 at Bikaner III PS
- 765 kV 110 MVAR switchable line reactor – 6 at Neemrana II S/S
- 765 kV line bays – 2 at Bikaner III PS
- 765 kV line bays – 2 at Neemrana II S/S

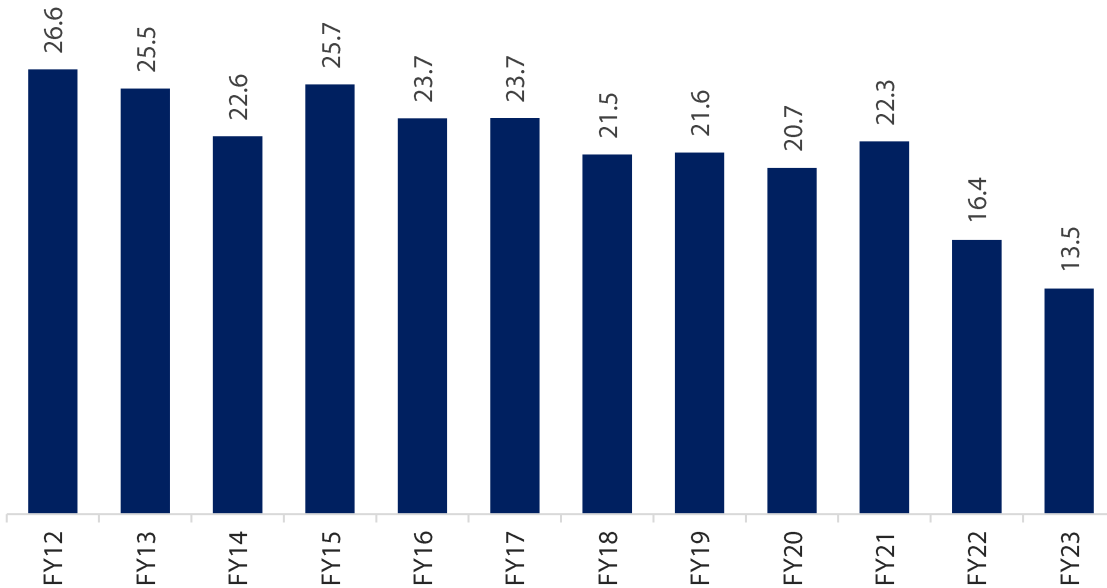
Capex: ₹1,544 Cr

\*Lowest bidder

## India Distribution: On the mend but concerns remain

**All India AT&C losses (%) have declined due to LPS and RDSS schemes**

All India basis



■ AT&C (Aggregate Technical & Commercial) Losses (%)

\*PFC Report

Abbreviations:

LPS- Late payment surcharge

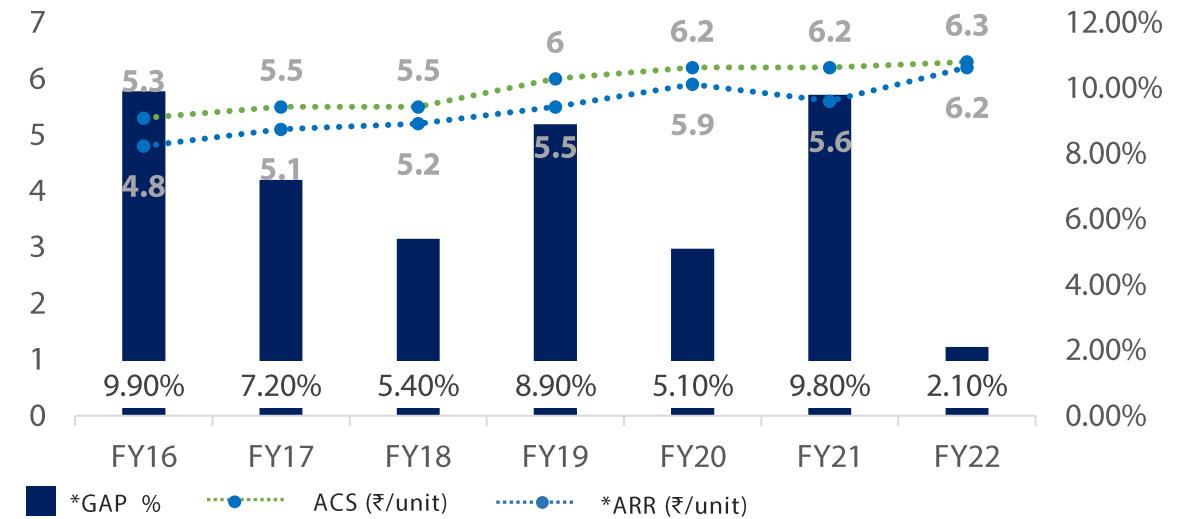
RDSS - Revamped Distribution Sector Scheme

ACS – Average cost of Supply

ARR – Average Revenue Realised

**ACS –ARR gap has narrowed but continues to persist**

Overall ACS-ARR GAP



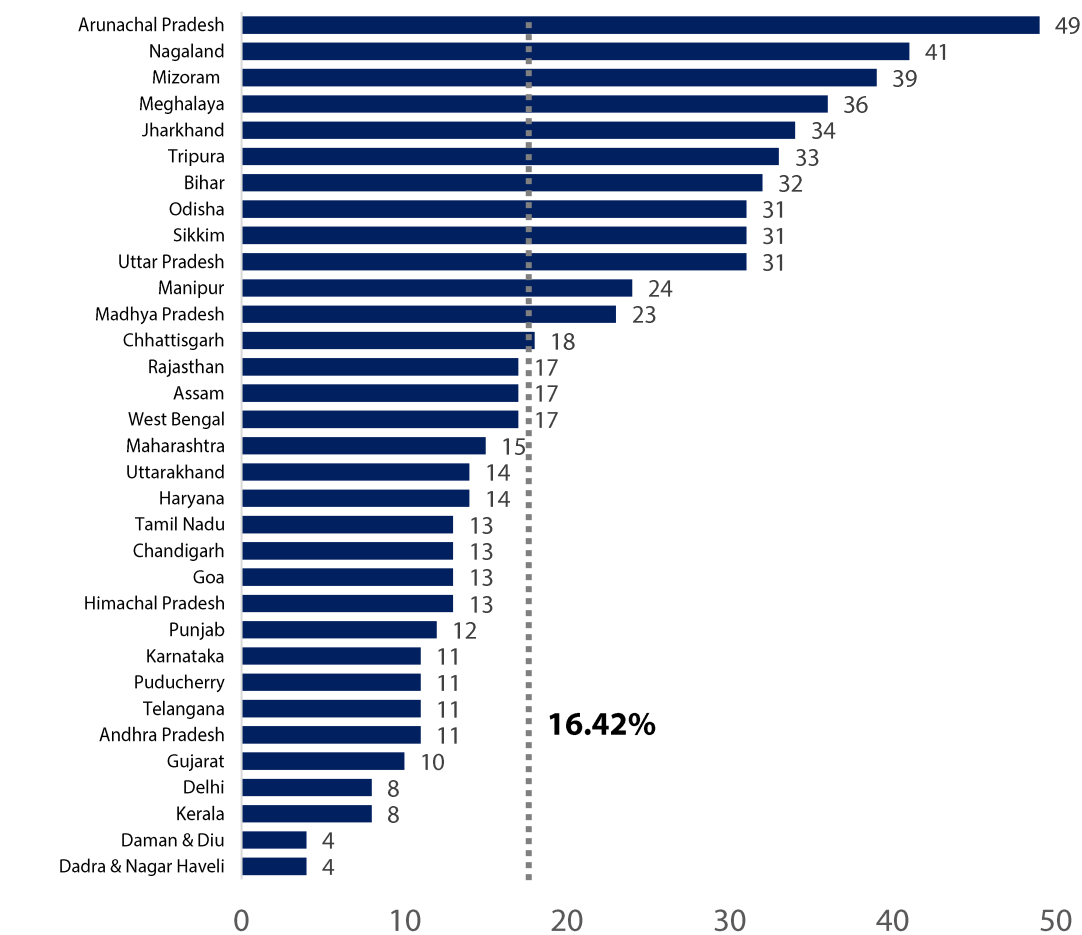
Source: PFC Report

- Periodic and targeted measures taken by the Union govt helped DISCOMS improve their performance.
- Implementation of Late Payment Surcharge Rules inculcated a discipline amongst DISCOMs to make timely payment to Genreating Co's, thereby reducing overdue amount
- Increased smart metering implementation helped improve the billing efficiency

\* After Tariff subsidy received

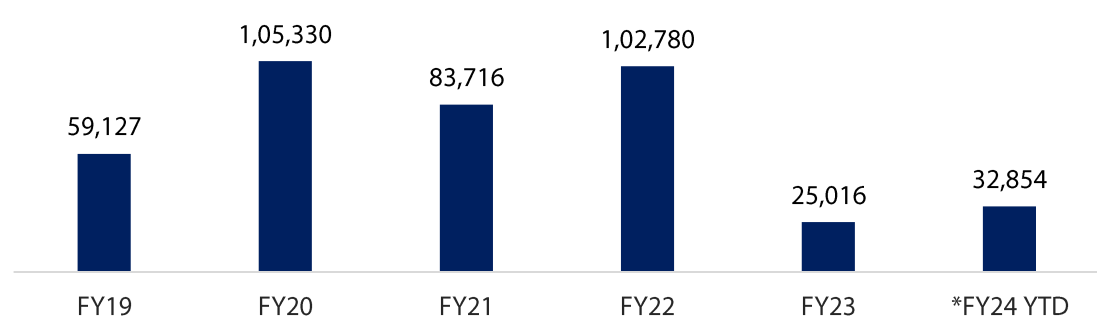
# India Distribution: Several states continue to display high AT&C losses and remain in financial stress

State-wise AT & C losses (%) for FY22



Source: MOP

RDSS and LPS reduce DISCOM Dues (₹ in Cr)



\*Till 24<sup>th</sup> November 23      Source: PRAAPTI portal

Financial performance of DISCOMs			
Parameters	Unit	FY20	FY22
Total Losses (on accrual basis)	₹ Cr	30,752	31,026
Debt	₹ Lakh Cr	5.0	6.2
Regulatory assets	₹ Cr	65,414	75,178
Accumulated losses	₹ Lakh Cr	5.05	5.52

Source: PFC report

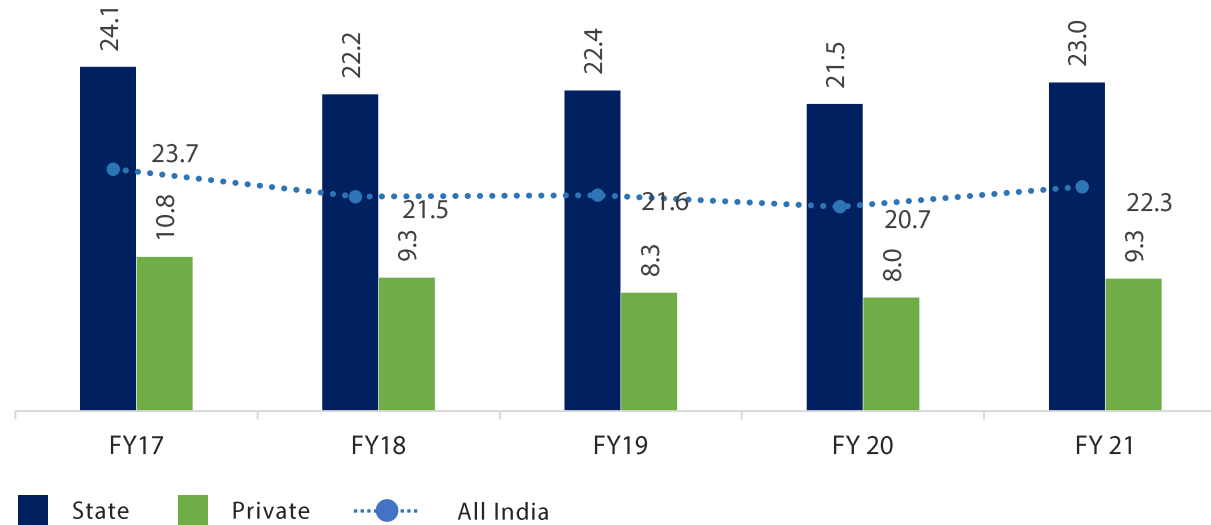
While green shoots are visible in power distribution sector, major concerns remain

Key challenges for State DISCOMs

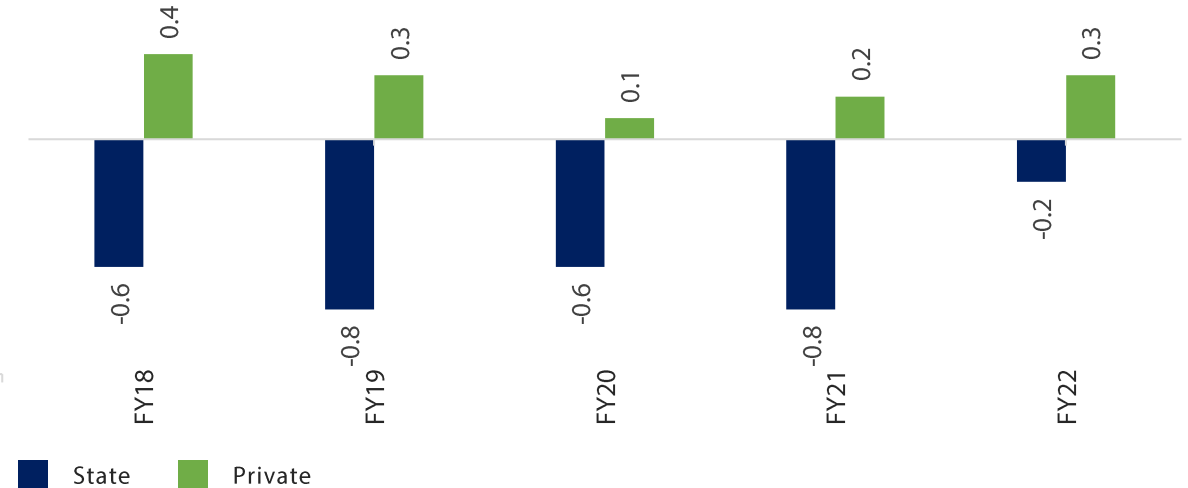
- Increased power purchase cost
- Shift of subsidizing C&I customers to options of OA/GC/RTS
- Limitation on taking RE benefits

## Private DISCOMs in a better shape; Tata Power has 50% share in Private DISCOMs

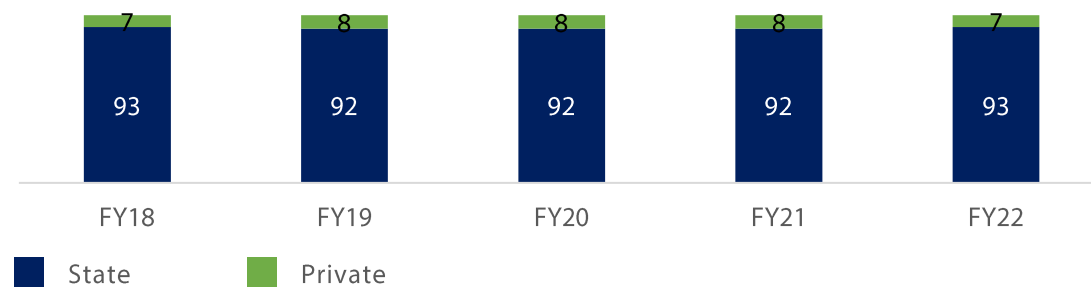
**AT&C losses (State vs Private) (%)**



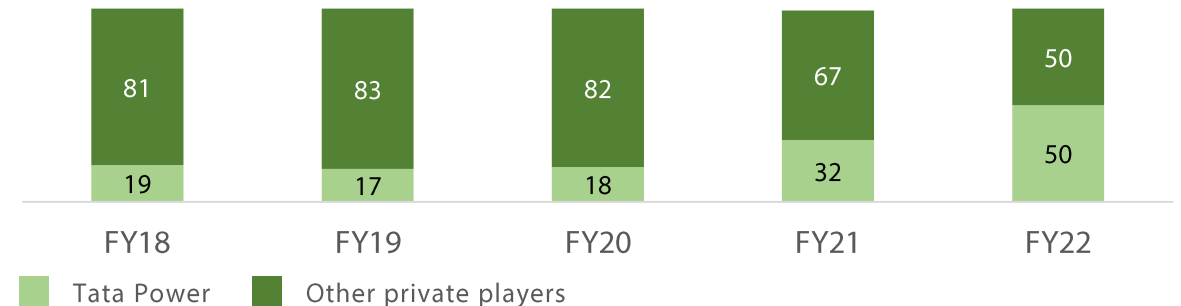
**ARR-ACS GAP (State vs Private) (₹/unit)**



**Market share of State vs Private players (Revenue basis) (%)**

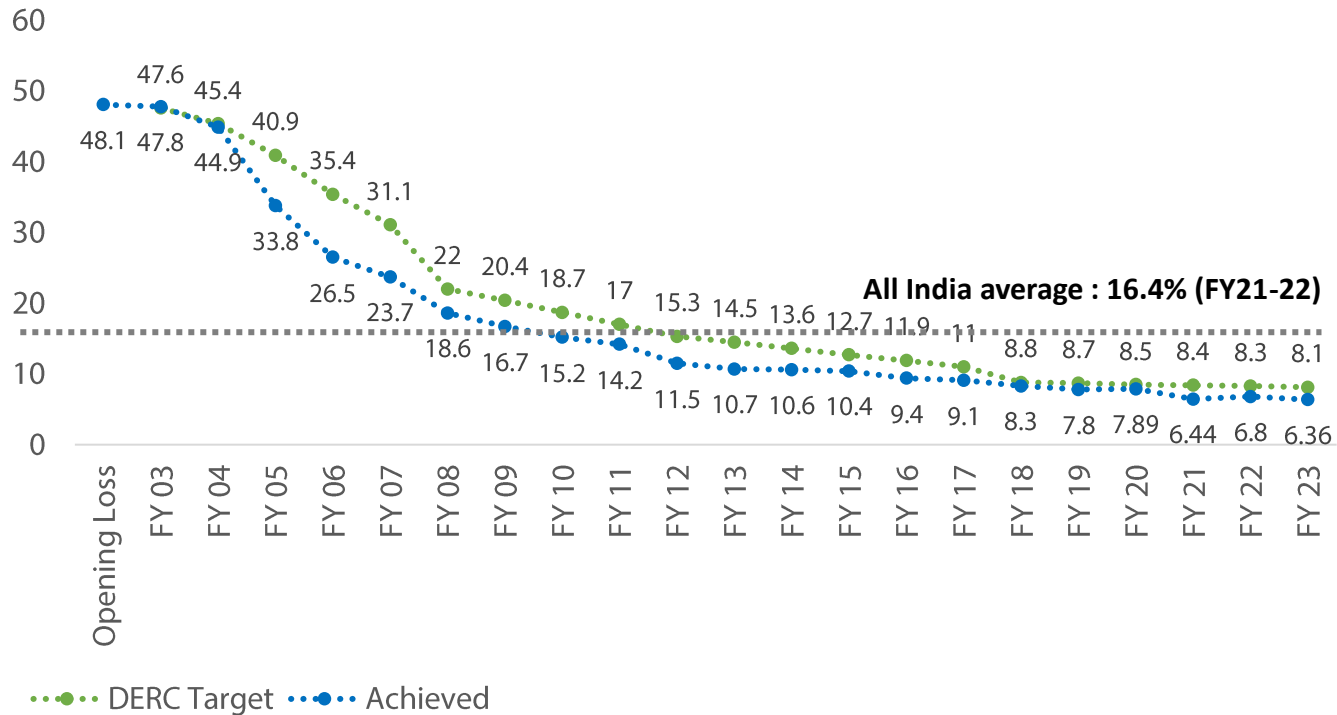


**Our position among private players (%)**





## TPDDL: Solid turnaround for the past two decades



### TPDDL turnaround in Numbers

**₹50,000 cr**

Estimated saving to the Government  
(since takeover in FY02)

**₹7,600 cr**

Cumulative Capex till FY23

**₹801 cr**

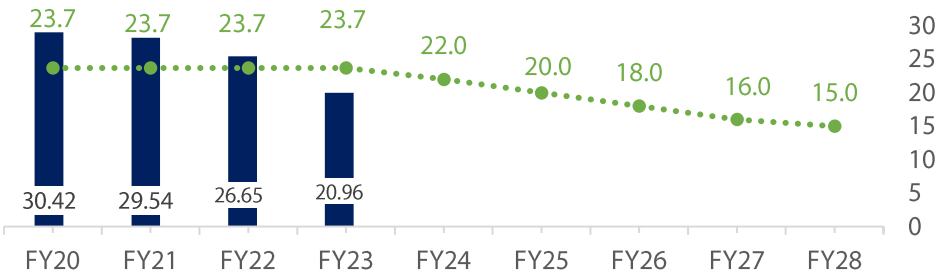
Dividend paid to the  
Government

\*Loss level of 6.44% in FY21 due to additional collection pertaining to FY20 (Covid period), corrected AT&C is 7.26

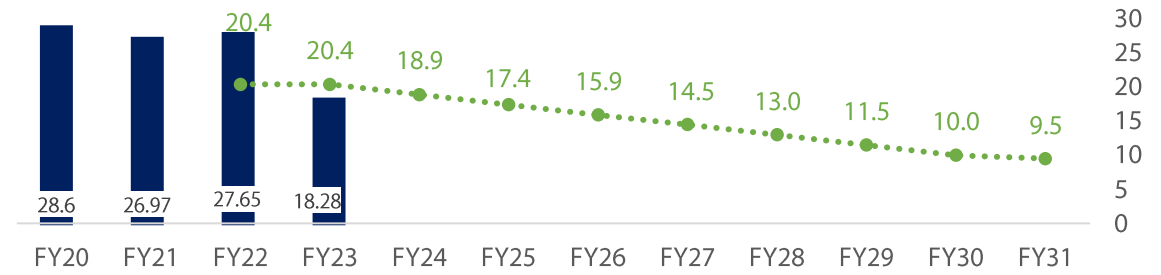
Tata Power Delhi Distribution Limited (TPDDL) acquired by Tata Power in FY02

# Odisha DISCOMs: Significant improvement in AT&C losses in a short span of time

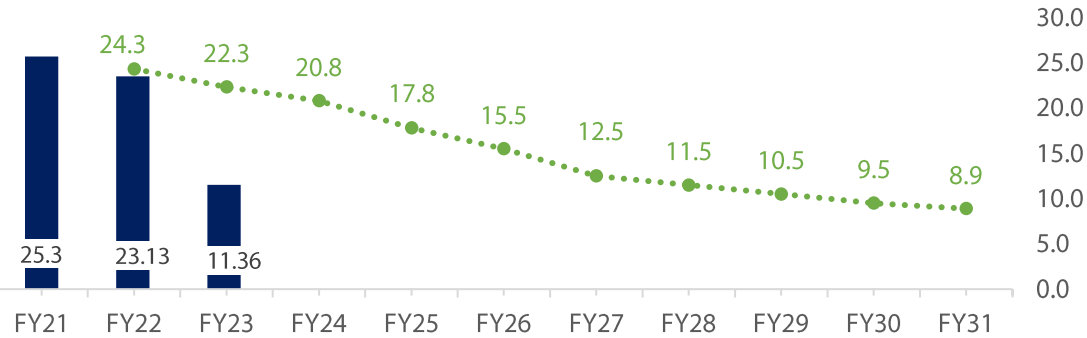
**Tata Power Central Odisha Distribution Ltd. (TPCODL)**



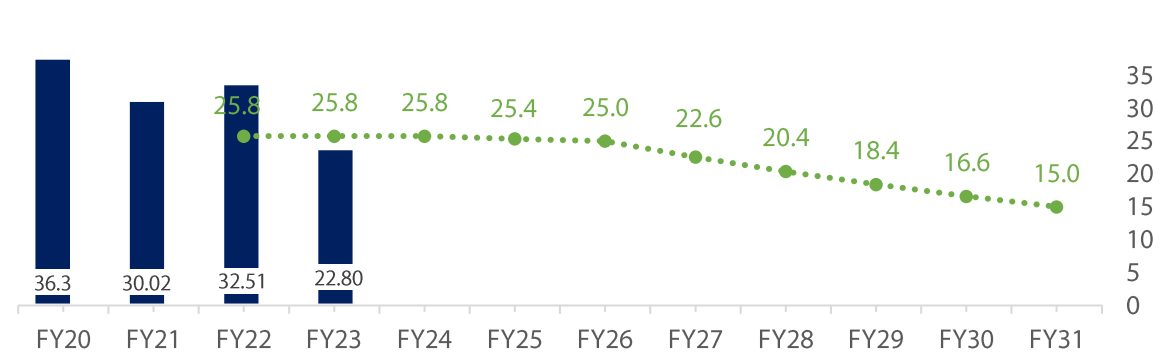
**Tata Power Western Odisha Distribution Ltd. (TPWODL)**



**Tata Power Northern Odisha Distribution Ltd. (TPNODL)**



**Tata Power Southern Odisha Distribution Ltd. (TPSODL)**



●●●●● Tariff determination trajectory for AT&C losses
  AT&C Actual

TPCODL acquired in June'20  
 TPWODL acquired in Jan'21  
 TPNODL acquired in Apr'21  
 TPSODL acquired in Jan'21

Source: OERC, Tata Power

# Levers of Odisha Turnaround Story



## Improving Reliability & Quality of Power

Predictive Analysis

Reliability improvement measures like DTR augmentation, Network strengthening, installing auto-reclosure & sectionalizers on feeders

Sub-stations automated

206 | 115 | 148 | 115

Capex to upgrade systems (₹ in Cr)

798 | 546 | 668 | 635

Central PSCC



## Enhancing Safety Culture

Drone surveillance for overhead network monitoring

PPEs to Employees

Safety Audits & Practice Yards

VR based safety trainings, Workmen family Behavioral-based safety awareness program

Contractor Safety Mgt



## Technology deployment

Innovative Tech - Trolley mounted Sub-station, Automatic Voltage Regulator Transformer, etc

Advanced Distribution Management System

AI based OCR meter reading , Drone technology for Bluetooth enabled meters.

Smart Meter installation (thousands)

68 | 56 | 85 | 55

ERP, Billing & CRM



## Consumer Centricity

24 x 7 call centre services

Multiple digital payment avenues

TAT Matrix for redressal

New Connections (MW)

1063 | 519 | 1362 | 816

Rural PDS linked Anubhav Kendras



## Commercial focus

Arrear Collections (₹ in Cr)

411 | 257 | 370 | 576

Theft Load (MW)

268 | 168 | 209 | 246

Energy Audit & GIS Indexing of network & consumers

Mobile App & M-Pos integrated revenue collection app

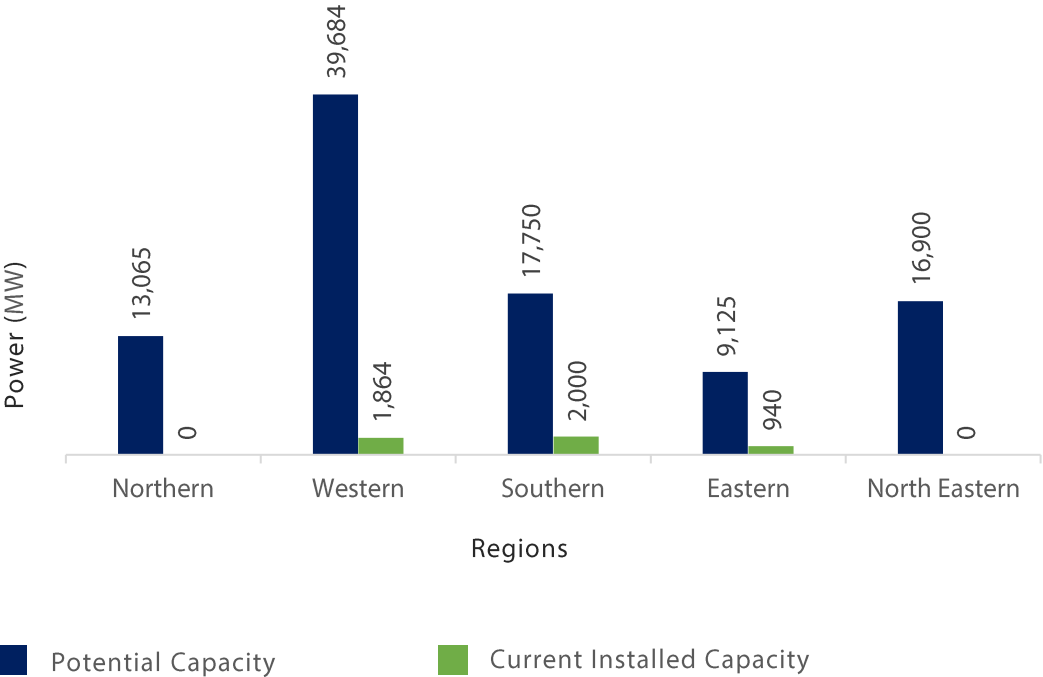


**Pumped hydro plants: Our emerging growth lever**



# 97GW of Pumped Hydro (PSP) potential in India with c40GW in Western India

Region-wise distribution of PSP potential and current PSP installed capacity (MW) in India



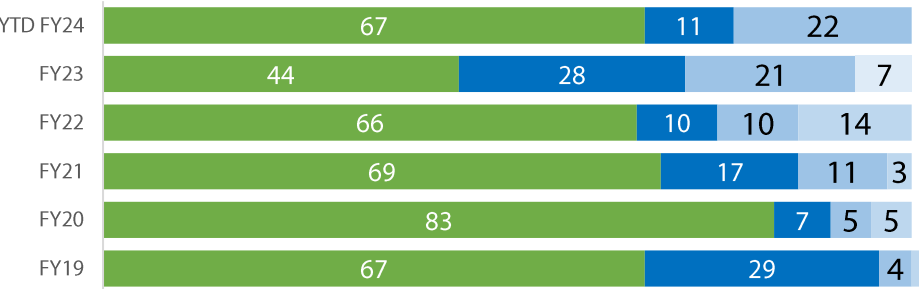
Source: CEA

Current status of pumped storage hydro plants in India

Status	No of projects	Installed capacity (MW)
In Operation		
Working in Pumping Mode	6	3,305
Not working in Pumping Mode	2	1,440
Under Construction		
Under Active Construction	3	2,700
On which Construction is held up	1	80
DPR concurred by CEA	1	1,000
Under Examination	1	1,350
Under S&I (Survey & Inspection)	33	42,150
Under S&I Held Up	5	5,320
Grand Total	52	57,345

Source: CEA

## Share of Hybrid in RE auctions has been rising (%)

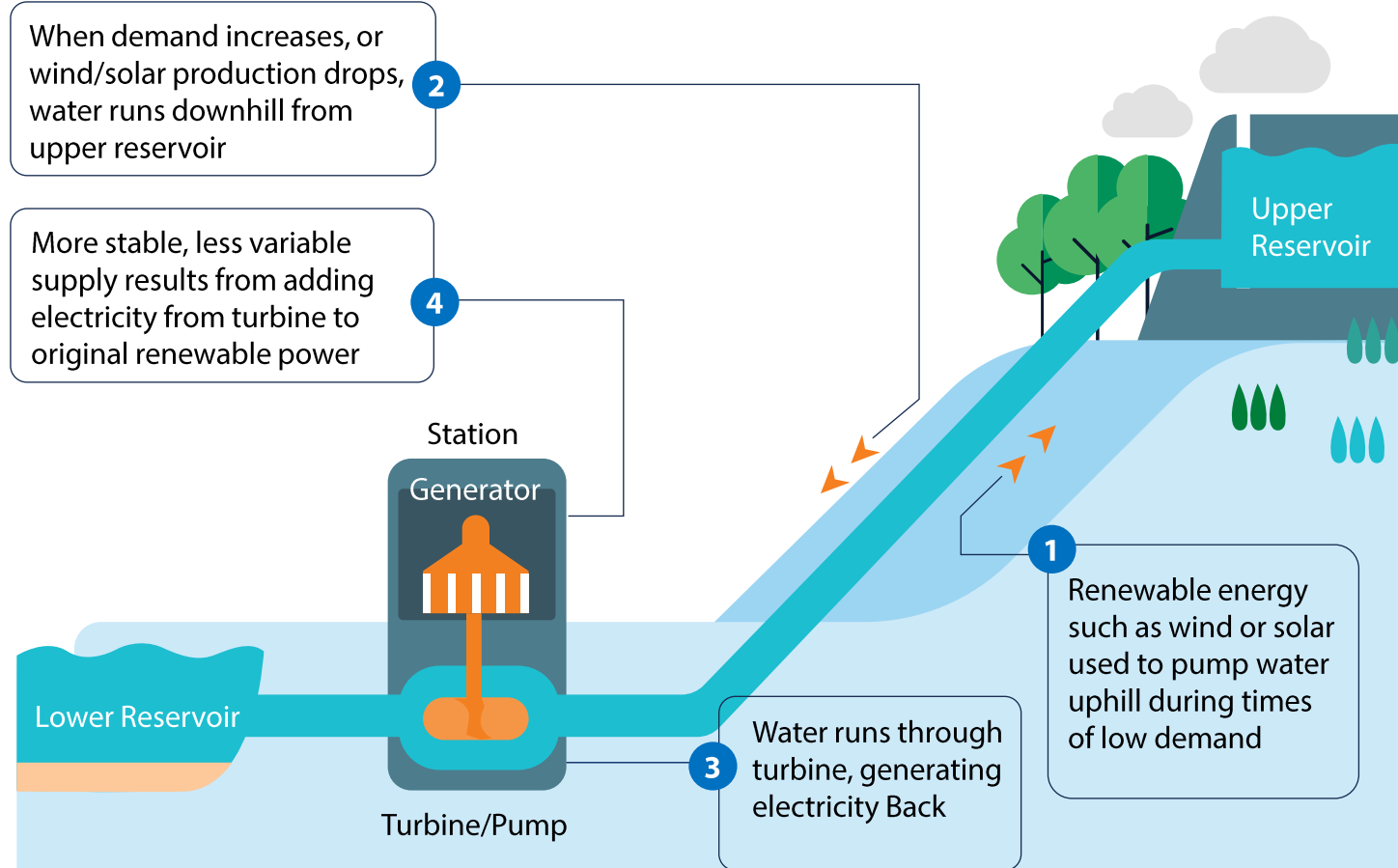


Solar Wind Hybrid Hybrid (with storage) Floating Solar

Source: Elektre, HSBC

# Why Pumped Storage Hydro plants?

## Pumped Storage Hydro - Concept



## Benefits of PSP

Green Storage

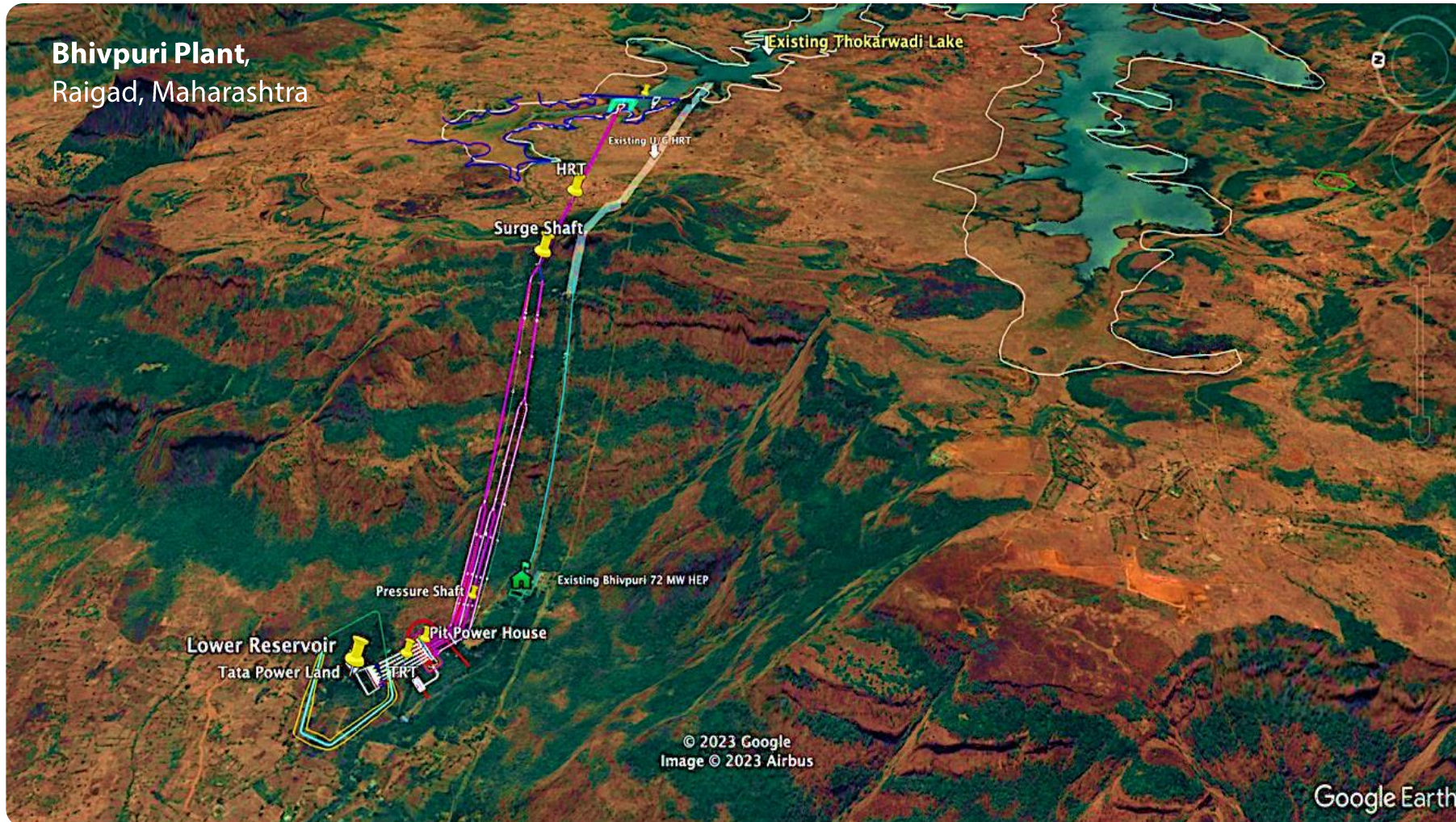
Flexible and Reliable

High Economic Value

Useful life > 80 Years

Black Start Capability

## 1,000 MW Bhivpuri PSP (Brownfield Project) - Key highlights



# 1,000 MW

Bhivpuri PSP

Type

Existing Off-stream

Upper Reservoir

Thokarwadi – 352 MCM  
(million cubic meters)

Lower Reservoir

New – 5 MCM

Daily Generation

6,000 MWhr

Capital Investment

₹4,700 Crores

Timeline:

Start by Mid-2024

Completion- End 2027



# 1,800 MW Shirawta PSP (Brownfield Project) - Key highlights



## 1,800 MW

Shirawta PSP

Type  
Off-stream

Upper Reservoir  
New -15 MCM

Lower Reservoir  
Existing Shirawta Dam  
197 MCM

Daily Generation  
10,800 MWhr

Capital Investment  
₹7,850 Crores

Timeline:  
Start by Mid-2024  
Completion by 2028



## Our Pumped Storage (PSP) projects: Current Status



**FSR submitted to CEA for approval. Project layout approved by CEA for survey & investigation (S&I). Investigation in progress.**

**Connectivity application made to CTU; First consultation meeting held**

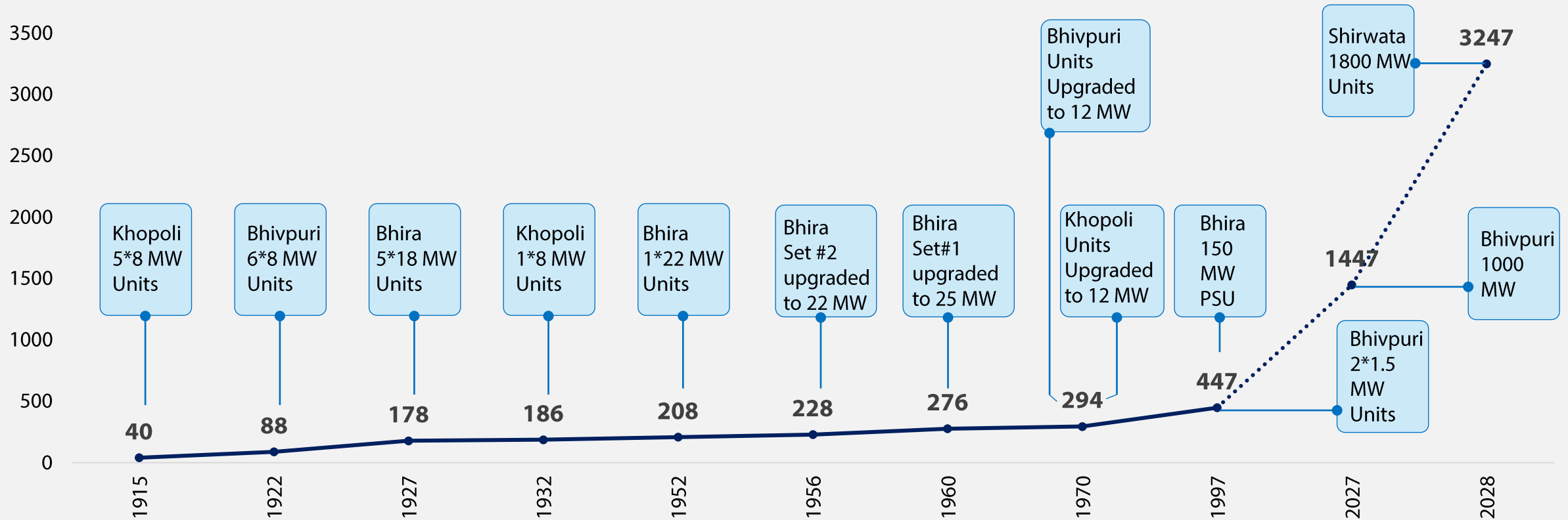
**Terms of Reference approved by MoEFCC**

**Order placed for pre-order engineering**

**Detailed Project Report (DPR) preparation in progress : Target January 2024**

## Domestic hydro capacity to rise by 7x+ post commissioning of PSP Projects

### Hydro overview: Plant capacity addition (MW)



## Additional potential of 9GW in the future should help support RTC of ~30GW



**573 MCM** Mulshi dam,

**3,000 MW,**

**Nenavali,** Mulshi dam Upper Reservoir



**72 MCM** Walwhan dam, Raigad,

**3,000 MW,**

**Kataldhara,** Walwhan dam Upper Reservoir



**353 MCM** Thokarwadi dam, Bhivpuri

**3,000 MW,**

**Poltalpali,** Thokarwadi dam Upper Reservoir

Other Reservoir Sites  
of Tata Power

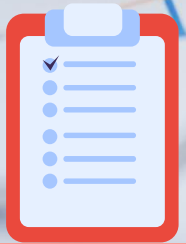


**6 MCM** Kundali dam, Khopoli



**12 MCM** Lonavala dam, Khopoli



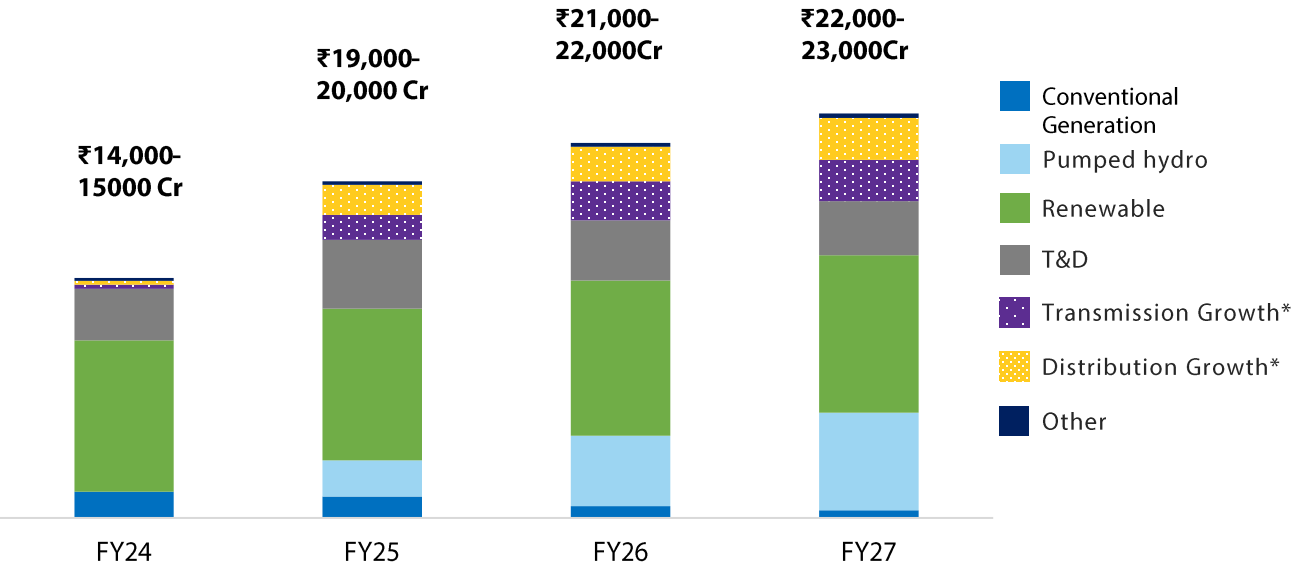


Looking ahead: Key targets for FY27



# Tata power to deploy 45% of its capital to renewable sector

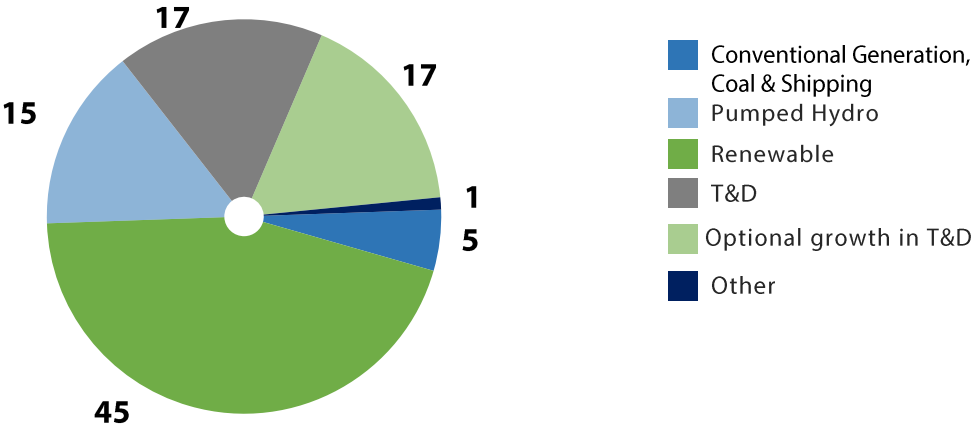
Estimated capex of around ₹60,000 Cr till FY27



Source: Tata Power Estimates

\*Optional Capex of ₹12,000 Cr subject to TBCB wins in transmission and DISCOM circles

45% of the capex to be spent on renewables between FY24-27e



Source: Tata Power Estimates

## Confident about growing profits with rising share from core businesses

FY23

FY27E

Revenue

₹56,033 Cr



~2X

EBITDA

₹10,068 Cr



~2X

PAT (before Minority)

₹3,810 Cr



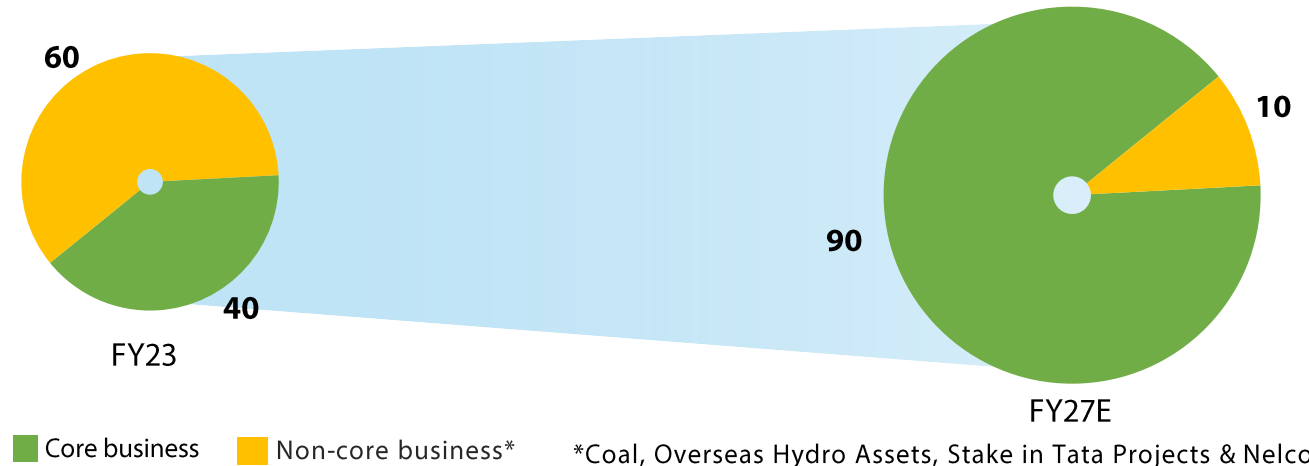
~2X

Share of EBITDA (%)



\* EBITDA contribution from PSP shall start from FY28

Share of PAT (%)






\*Coal, Overseas Hydro Assets, Stake in Tata Projects &amp; Nelco



**Sustainability: At the core of all that we do**

## Our sustainability aspirations

	<p>Become <b>carbon net zero</b> before 2045</p>	<p>Become <b>water neutral</b> before 2030</p>	<p><b>Zero waste to landfill</b> before 2030</p>	<p><b>No Net Loss to Biodiversity</b></p>	<p>Leverage technology to create the '<b>Utility of the Future</b>' (IOT, Smart Grids, BESS, Green H2, robotic panel cleaning etc.)</p>
	<p><b>Education</b> - Train <b>35 lakh+</b> youth as conservation and STEM education champions by 2028</p>	<p>Employability and Employment - <b>20 lakh+</b> youth trained and made employable by 2028</p>	<p>Entrepreneurship - Enable <b>1 lakh+</b> community collectives (Self Help Groups) by 2028</p>	<p>Improve overall gender diversity ratio to <b>20%</b> by 2028</p>	<p>Leverage technology to create the '<b>Utility of the Future</b>' (IOT, Smart Grids, BESS, Green H2, robotic panel cleaning etc.)</p>
	<p>Improve <b>Sustainability Disclosures</b> and get listed in <b>DJSI Emerging Markets list</b> by 2027</p>	<p>Inclusion in S&amp;P Global Emerging Market List by 2027</p>			



## Taking leaps towards our ESG goals

Particulars	Description	Baseline	Year	Target		On going actions
		Value (FY23)		Value	Year	
Environment	Clean & Green Portfolio	16%*	2015	70%	2030	<ul style="list-style-type: none"> <li>38% RE portfolio as of June 2023</li> </ul>
	Net Zero (Absolute Carbon Emissions)	38.9 Million Tonnes	2023	100%	2045	<ul style="list-style-type: none"> <li>SBTi Commitment</li> <li>Renewable Portfolio Growth</li> <li>Thermal plant phase-out plan</li> <li>Annual plantation of more than 1 million saplings</li> </ul>
	Water Neutral (Fresh Water Consumption)	69.7 Billion litres	2023	100%	2030	<ul style="list-style-type: none"> <li>3% Fresh Water reduction</li> <li>17% Rain Water Harvesting</li> <li>80% by offsets</li> </ul>
	Zero Waste to Landfill	5.96 Million Tonnes	2023	100%	2030	<ul style="list-style-type: none"> <li>Waste utilisation of Ash</li> </ul>
	Total Non HW Waste (including Ash)	5.8 Million Tonnes				<ul style="list-style-type: none"> <li>Waste Management Plan for biodegradable waste, plastic, and e-waste</li> </ul>
Social	Education	1.6 Million beneficiaries	2023	3.5 Million	2028	<ul style="list-style-type: none"> <li>CSR initiatives made a positive impact on 3.7 million lives across 17 Indian states during FY23</li> <li>₹ 50 Cr CSR spend in FY23</li> </ul>
	Employability & Employment	39,156 beneficiaries	2023	2.0 Million	2028	
	Entrepreneurship	26,170 beneficiaries	2023	100,000	2028	
	Gender Diversity (%)	9%	2023	20%	2028	<ul style="list-style-type: none"> <li>Women employees across roles</li> <li>59% - Campus hires</li> <li>Policies supporting women in all life stages and mentorship program</li> </ul>
Governance	DJSI Emerging Markets List (Absolute Score)	67/100	2023	80/100	2027	<ul style="list-style-type: none"> <li>ESG Action Plan and Gap Analysis</li> </ul>

\*Base Year 2015 for Clean & Green Portfolio in alignment with Paris Agreement

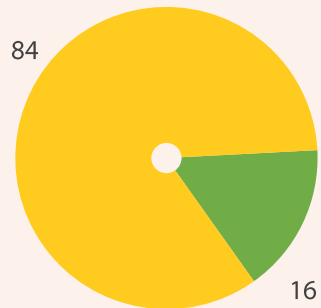
## Gradually improving our ESG ratings

	2023	2022	2021	2020	2019	2018
 CDP – Climate Change	▶ <b>B</b>	B	C	C	D	D
 CDP – Water	▶ <b>B</b>	B	B	C	F	F
 Dow Jones Sustainability Indexes DJSI	▶ <b>67</b>	67	67	-	48	15
 MSCI	▶ <b>BBB</b>	BBB	BB	BB	BB	BB
 Sustainalytics	▶ <b>40.9</b>	41.2	38.6	-	-	-

## Achieving 100% clean power generation by FY 2045

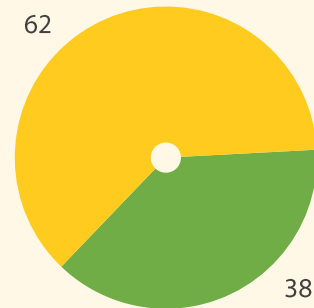
### 2015

Largely a coal-based company, having capacities to fulfil the energy demands of a developing India



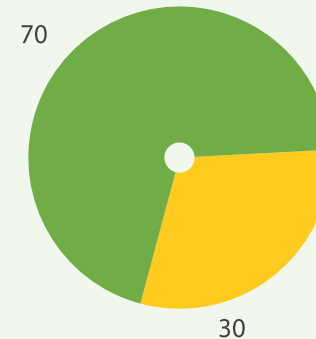
### 2023

Transitioning towards a clean and green portfolio through renewable energy capacity expansion



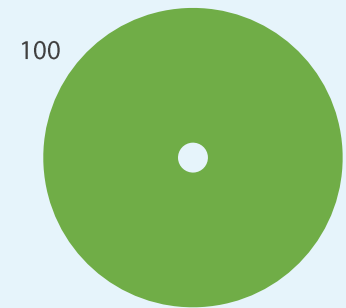
### 2030

Clean & Green Capacity will account for 70% of our overall capacity in 2030



### 2045

Phasing out thermal portfolio before 2045 as Power Purchase Agreements (PPA's) for our thermal capacity expires



■ Clean & Green (%)   ■ Thermal (%)

# Empowering Communities



**3.7 Mn**

Touching lives

**85+**

Districts in 17 states

\*\*Tata Power has taken a major leap in the CSR ranking by securing a spot in top 10 as against its 57<sup>th</sup> rank in the last year



## CSR Mission

To work with communities in the vicinity of our operations or as specially identified, to gain their acceptance of co-existence by addressing salient development imperatives

**The key interventions for target communities are focused in the following thematic areas**

Education

Employability & Employment

Entrepreneurship

Essential Enablers

## Powering Transforming

Public Private Partnerships (Collaboration & Leverage)

Improving access & creating opportunities

Far Reaching Impact on Community and Co-ownership

Optimal Utilization of Resources (Premises)

Green Jobs

Technology Enablement

Institutionalisation & Standardization

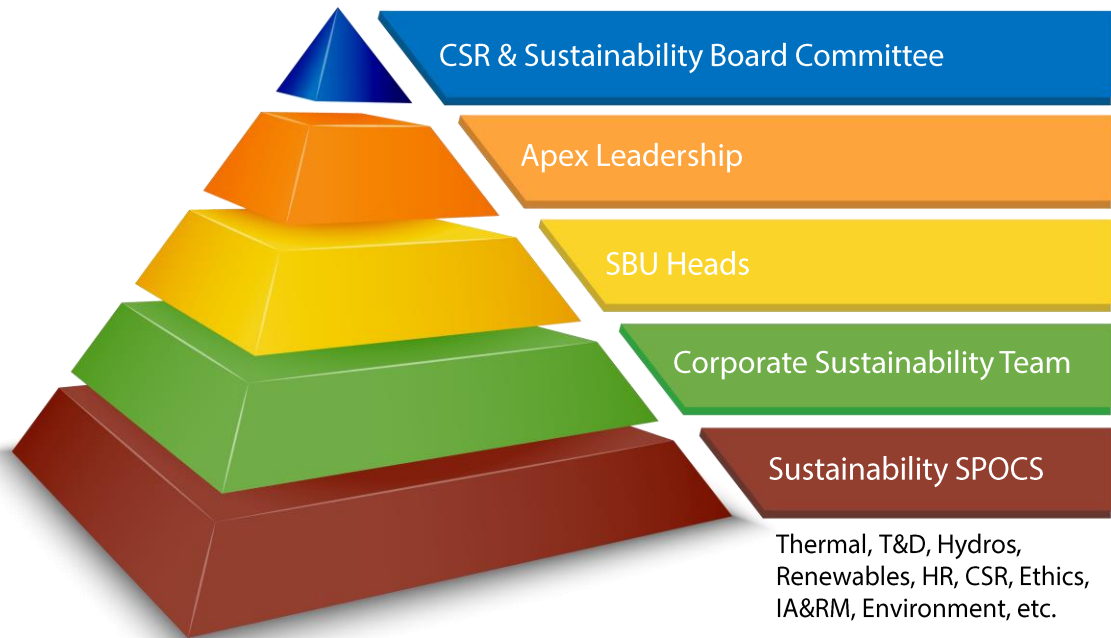
Tree Mittra leveraged for social afforestation

\*\*Source: <https://www.futurescape.in/responsible-business-rankings/> | <https://thecsrjournal.in/top-100-companies-india-csr-sustainability-2021/>

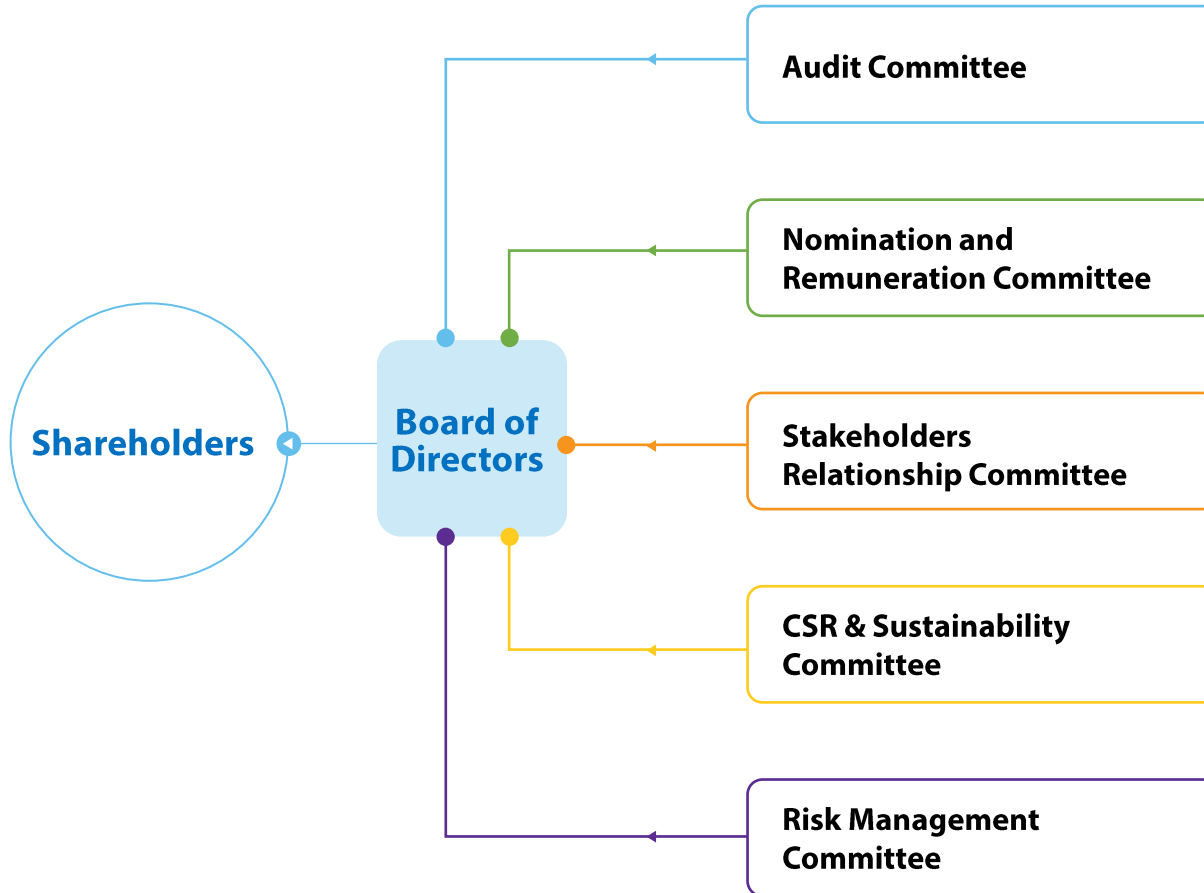


# Well-established governance framework

Our CSR and Sustainability Committee at the Board level guides the strategy, and the Apex Leadership Team enables its impactful implementation



## Robust Governance Structure in place



### Governance policies

- Tata Code of Conduct
- Code of Conduct for Independent Directors
- Code of Conduct for Non-Executive Directors
- Related Party Transactions Policy, Framework & Guidelines
- Whistle Blower Policy & Vigil Mechanism
- Risk Management Policy - ISO certified
- process
- CSR Policy
- Tata Code of Conduct for Insider Trading and Corporate Disclosure Policy
- Dividend Policy
- Policy for Determining Material Subsidiaries
- Policy for determining Materiality for Disclosures
- Remuneration Policy for Directors, Key Managerial Personnel and Other Employees
- Charters of various Board appointed Committees
- ... and others



**What sets us apart**





# Most vertically integrated and diversified power portfolio in India

**Tata Power Company Limited (TPCL) H1FY24**

**Revenue (₹ in Cr)**  
**30,446**

**EBITDA (₹ in Cr)**  
**6,092**

**Net Debt (₹ in Cr)**  
**36,609**

**PAT\*\*\* (₹ in Cr)**  
**2,158**

## Thermal generation, coal & hydro renewables

**Revenue**  
(₹ in Cr)  
**9,800**

**EBITDA**  
(₹ in Cr)  
**2,107**

**PAT**  
(₹ in Cr)  
**1,370**

THERMAL	CAPACITY	FUEL	STAKE
Mundra	4,150 MW	Coal	100%
Trombay	930 MW	Coal/Gas	100%
Maithon (MPL)	1,050 MW	Coal	74%
Prayagraj (PPGCL)*	1,980 MW	Coal	20%
Jojobera	428 MW	Coal	100%
Haldia	120 MW	Coal	100%
IEL	483 MW	Coal/ WHRS	74%
Rithala	108 MW	Gas	51%
PT CKP	54 MW	Coal	30%

INDONESIA COAL MINES, SHIPPING & INFRA		
MINE	CAPACITY	STAKE
Kaltim Prima (KPC)	60 MT	30%
BSSR & AGM	18 MT	26%
NTP (Coal Infra)	-	30%
TERPL (Coal Shipping)**	-	100%
HYDRO	CAPACITY	STAKE
Bhira	300 MW	100%
Bhivpuri	75 MW	100%
Khopoli	72 MW	100%
Dagachhu	126 MW	26%
Itezhi Tezhi	120 MW	50%
Adjaristsqali	187 MW	50%

## Renewables^

**Revenue**  
(₹ in Cr)  
**4,235**

**EBITDA**  
(₹ in Cr)  
**1,721**

**PAT**  
(₹ in Cr)  
**426**

RENEWABLES	CAPACITY
Solar Power	3,191 MW
Wind Energy	1,007 MW
UNDER CONSTRUCTION	CAPACITY
Solar Power	1,460 MW^^
Hybrid	2,300 MW
EV CHARGING	CAPACITY
Public	4,932
Home	61,959
E-Bus	464

TATA POWER SOLAR SYSTEMS LIMITED (TPSSL)	
PARTICULARS	CAPACITY/ ORDER BOOK
Utility Scale Solar EPC	₹15,870 Cr
Rooftop EPC	₹2,872 Cr
Cell & Module Capacity	530 & 682 MW
TP SOLAR: UNDER CONSTRUCTION	CAPACITY
Cell & Module	4,300 MW (each)

## Transmission & distribution

**Revenue**  
(₹ in Cr)  
**18,731**

**EBITDA**  
(₹ in Cr)  
**2,180**

**PAT**  
(₹ in Cr)  
**683**

DISTRIBUTION LICENSE	CUSTOMERS	STAKE
Mumbai	0.76 Mn	100%
Tata Power Delhi (TPDDL)	2.00 Mn	51%
Odisha	10.06 Mn	51%
DISTRIBUTION FRANCHISE	CUSTOMERS	STAKE
Ajmer (TPADL)	0.16 Mn	100%
POWER TRADING COMPANY	STAKE	
TPTCL	100%	

TRANSMISSION	CIRCUIT KM	STAKE
Mumbai	1,264	100%
Powerlinks	2,328	51%
SEUPPTCL	789	26%
NRSS XXXVI	1.5	26%
UNDER CONSTRUCTION		
SEUPPTCL	754	26%
NRSS XXXVI	151.5	26%

## Eliminations/ Others

(Incl. corporate taxes , expenses and interest)

**Revenue**  
(₹ in Cr)  
**(2320)**

**EBITDA**  
(₹ in Cr)  
**84**

**PAT**  
(₹ in Cr)  
**(321)**

ENTITY	BUSINESS MODEL	STAKE
Tata Projects	EPC	31%
Nelco	Communication	50%
Corporate		

\* Resurgent owns 75% in Prayagraj | \*\* TERPL is a wholly owned subsidiary of Tata Power International Pte Ltd., which is wholly owned by Tata Power. | \*\*\* Reported PAT before Minority Interest after exceptional items | ^ Tata Power currently owns 93.94% stake in Renewables (TPREL). CCPS has been issued which will result in further dilution of 5.37% equity stake in TPREL | ^^15 MW is for IEL

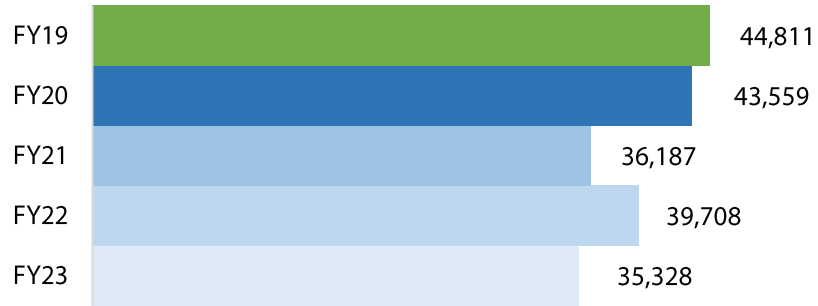
JVs and Associates

Standalone Divisions

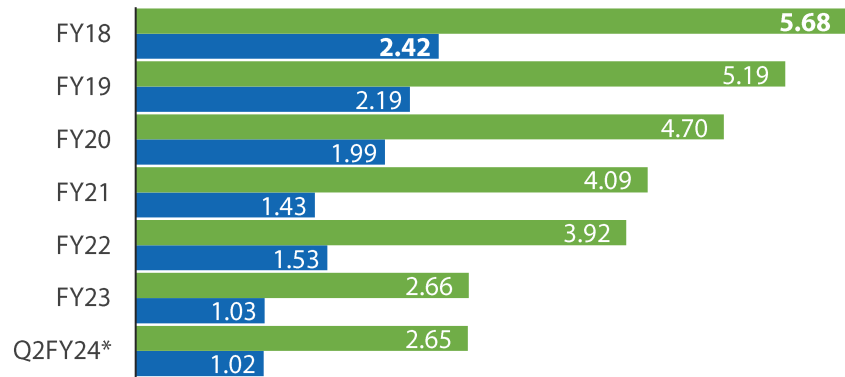
Subsidiary

## Well-capitalised with one of the strongest Balance Sheets

### Net Debt (₹ in Cr)



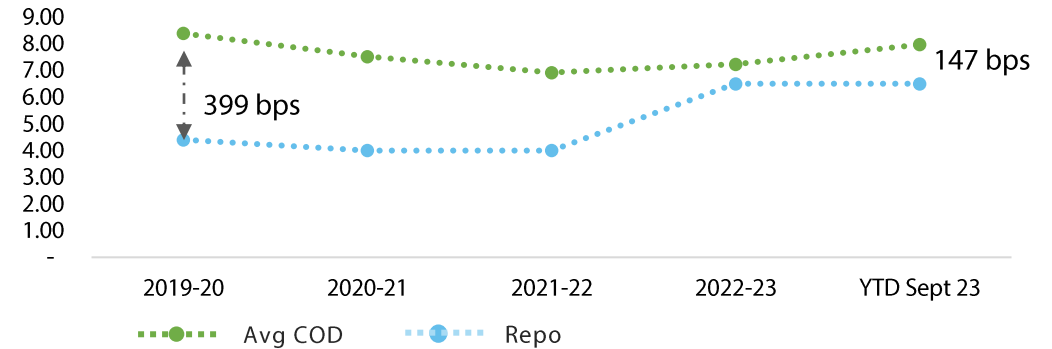
### Balance Sheet continues to strengthen



■ Net Debt to Equity ■ Net Debt to Underlying EBITDA

\*Trailing twelve months

### Relatively smaller rise in Cost of Debt (CoD) compared to rise in Repo rate (%)



### Credit rating continues to improve

Credit Rating* (Consolidated)	2019-20	2020-21	2021-22	2022-23	Current
CRISIL	AA- /Positive	AA /Stable	AA /Stable	AA /Stable	AA /Positive
ICRA	AA- /Stable	AA- /Positive	AA /Stable	AA /Stable	AA /Positive
India Ratings	AA /Stable	AA /Stable	AA /Stable	AA /Stable	AA /Stable
CARE	AA /Stable	AA /Stable	AA /Stable	AA /Stable	AA /Positive
S&P Global	-	B+ /Positive	BB /Stable	BB+ /Stable	BB+ /Stable
Moody's	-	Ba3 /Stable	Ba2 /Stable	Ba2 /Stable	Ba1 /Stable

\*Credit Upgrades indicated by deepening shades of blue

## Well poised to achieve our aspirations

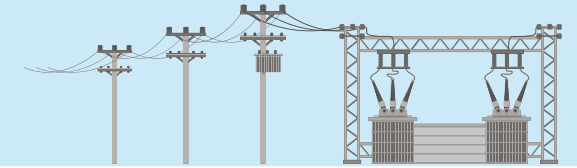
An All-round  
**“Utility of the Future”**



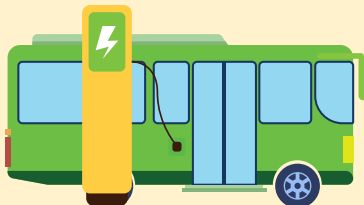
PSP Projects to add  
**2.8GW to our Clean  
and Green Energy  
Portfolio**



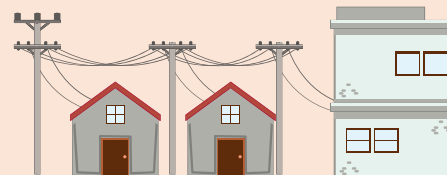
**Double Revenues, EBITDA and profitability by FY27** with rising contribution from our Core Businesses - Generation, Renewable, Transmission and Distribution, in India



**Clean & Green  
portfolio to reach  
70% of the  
generation  
capacity by 2030**



Expand distribution footprint to **40 million customers by 2027**; and grow transmission business through **TBCB & M&A** in transmission



Lead industry in transition to **carbon neutrality by 2045, 100% water neutral and 100% zero waste to landfill-biodegradable waste by 2027**





# Thank You!

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