



# Accelerating for a Better Tomorrow

Corporate Presentation  
June 2023

# Forward Looking and Cautionary Statement

This presentation has been prepared by JSW Energy Limited (the “Company”) based upon information available in the public domain solely for information purposes without regard to any specific objectives, financial situations or informational needs of any particular person. This presentation should not be construed as legal, tax, investment or other advice. This presentation is strictly confidential, being given solely for your information and for your use, and may not be copied, distributed or disseminated, directly or indirectly, in any manner. Furthermore, no person is authorized to give any information or make any representation which is not contained in, or is inconsistent with, this presentation. Any such extraneous or inconsistent information or representation, if given or made, should not be relied upon as having been authorized by or on behalf of the Company.

This presentation contains statements that constitute forward-looking statements. These statements include descriptions regarding the intent, belief or current expectations of the Company or its directors and officers with respect to the results of operations and financial condition of the Company. These statements can be recognized by the use of words such as “expects,” “plans,” “will,” “estimates,” “projects,” or other words of similar meaning. Such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ from those specified in such forward-looking statements as a result of various factors and assumptions. The risks and uncertainties relating to these statements include, but are not limited to, (i) fluctuations in earnings, (ii) the Company’s ability to manage growth, (iii) competition, (iv) government policies and regulations, and (v) political, economic, legal and social conditions in India. The Company does not undertake any obligation to revise or update any forward-looking statement that may be made from time to time by or on behalf of the Company. Given these risks, uncertainties and other factors, viewers of this presentation are cautioned not to place undue reliance on these forward-looking statements.

The information contained in this presentation is only current as of its date and has not been independently verified. The Company may alter, modify or otherwise change in any manner the contents of this presentation, without obligation to notify any person of such revision or changes. No representation, warranty, guarantee or undertaking, express or implied, is or will be made as to, and no reliance should be placed on, the accuracy, completeness, correctness or fairness of the information, estimates, projections and opinions contained in this presentation. None of the Company or any of its affiliates, advisers or representatives accept any liability whatsoever for any loss howsoever arising from any information presented or contained in this presentation. Please note that the past performance of the Company is not, and should not be considered as, indicative of future results. Potential investors must make their own assessment of the relevance, accuracy and adequacy of the information contained in this presentation and must make such independent investigation as they may consider necessary or appropriate for such purpose. Such information and opinions are in all events not current after the date of this presentation.

The Potential investors shall be in compliance with the applicable Insider Trading Regulations, with respect to the Company in reference to the information provided under this presentation.

# JSW Group Overview



Amongst India's leading  
Conglomerates with a  
turnover of US\$22 Bn<sup>1</sup>



## JSW Energy

- Power producer with 9.8 GW of generation portfolio,
- Targeting 20GW generation + 40GWh of Storage by FY30
- Market Cap: ~US\$ 5.1 Bn



## Infrastructure

- Amongst **Top 5** Indian port companies
- Operates environment-friendly seaports & terminals
- Targeting 200mtpa cargo handling capacity in next few years



## Paints

- India's new age Paints company offering a path-breaking Any Colour at One Price
- State-of-the-art Facilities in Maharashtra and Karnataka
- Ranks Number 1 in Industrial Coil Coatings



## Sports

- Supporting Indian sports ecosystem
- Teams Owned: Bengaluru FC, Delhi Capitals, Haryana Steelers



## Steel

- India's leading integrated steel producer
- Installed crude steel capacity of 29.2mtpa, growing to 38.5mtpa
- Market Cap: ~US\$ 21.3 Bn



## Cement

- India's leading Green cement company
- Current capacity of 17mtpa, with a medium term target of 25mtpa
- Product range includes PSC, GGBS, Concrete & Construction Chemicals



## Ventures

- Early-stage, tech-focused, VC fund
- Portfolio: Purple, LimeTray, Homelane, CureSkin and Zvlo




## Foundation

- Social development arm of JSW Group
- Footprint across 11 states and 15 districts
- Positively impacts more than a million lives across India



# JSW Energy : Our Vision

A wide-angle photograph of a solar farm at sunset. The rows of solar panels stretch from the foreground into the distance, creating a strong sense of perspective. The sky is filled with soft, golden light and scattered clouds, with the sun low on the horizon. In the background, a range of dark, silhouetted hills or mountains is visible against the bright sky.

**Bringing positive transformation to  
every life we touch**

# JSW Energy : Transitioning towards green energy

**FY2025**

To become a 10 GW company

**FY2030**

To become a 20 GW company  
and 40GWh Energy Storage

**FY2050**

To become carbon neutral by 2050

**Energy Products and Services**

Energy Storage | Electrons to Molecules - Foraying into green hydrogen and its derivatives

# Agenda

---

**Safety & Sustainability**

---

**A year of delivering promises**

---

**Strategy 2.0**

---

**Operational and Financial performance**

---

**Why JSW Energy ?**

---

**JSW NEO Energy**

---

**Annexures**

---

# Safety & Sustainability



# Continuing our Health & Safety Excellence Journey



## Zero severe injuries/fatalities

Lost Time Injury Frequency Rate of zero at all the operational plants during FY23



## 89% of contractors covered by JSW CARES audit

18 Contractors (34%) achieve 5 Star rating & 75% contractors achieve 3 Star and above in a stringent Internal Safety Assessment



## 81,800+ Cumulative Safety Observations Resolved in FY23

Influencing 'positive safety behavior' of our workforce by reporting smallest of the safety considerations thereby avoiding any major / minor incident



## 95% employees have completed the 'Safety Champion Program' course in co-ordination with British Safety Council

454 managerial employees across all major locations have completed the Safety Champion Program covering 10 safety high standard eLearning modules with final examination conducted in association with British Safety Council



## Enhancing Safety for Employees, Contractors & Community

18 High Risks mitigated across all plants through the barrier health management safety Initiative across all locations

- ✓ Vijayanagar: Comprehensive Fire Safety & Rescue mock drill conducted
- ✓ Ratnagiri: Electrical Safety drive & Road Safety drive covering 96% vehicles conducted
- ✓ Baspa: Road Safety Drive conducted for the nearby Community. CPR & Emergency rescue drive conducted at Karcham Dam

## Health & Safety Training Conducted at Plant Locations





# Sustainability: Framework and Policies

## 17 Focus Areas with 2030 Targets from 2020 as Base Year

<p><b>Climate Change:</b> Committed to being carbon neutral by 2050 Reduce our carbon emissions by more than 50%</p>	<p><b>Renewable Power:</b> Enhance the renewable power to 2/3rd of our Total Installed Capacity</p>	<p><b>Biodiversity:</b> No Net Loss for Biodiversity</p>
<p><b>Waste Water:</b> Zero Liquid Discharge</p>	<p><b>Waste:</b> 100% Ash (Waste) utilization</p>	<p><b>Water Resources:</b> Reduce our water consumption per unit of energy produced by 50%</p>

Operational Health & Safety	Resources	Social Sustainability	Local Considerations	Indigenous People	Human Rights
Supply Chain Sustainability	Employee Wellbeing	Air Emissions	Business Ethics	Cultural Heritage	Energy

**Aligned to National & International Frameworks**



\*based on CDP climate change rating 2022. CDP water security rating 2022 is B (Management). CDP Supplier Engagement rating 2022 is A (Leadership)

## Governance & Oversight by Sustainability Committee

<b>2</b> Independent Directors	Mr. Sunil Goyal
	Ms. Rupa Devi Singh
<b>1</b> Executive Director	Mr. Prashant Jain

## ESG Ratings – best amongst peers

CDP\* : A- (Leadership Level)

Sustainalytics: 23.9 (Medium Risk)

MSCI : BB

FTSE4Good Index constituent

## Carbon Neutrality by 2050

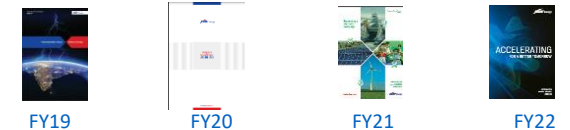


SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Committed to set science based targets to keep global warming to 1.5°C under SBTi

## Integrated Reporting since FY19



# Sustainability: Targets and Strategy

SD Targets		FY20 Actuals	FY30 Targets	Improvement	Strategic Initiatives and Approach
<b>Climate Change</b>	<ul style="list-style-type: none"> <li>GHG Emissions tCO<sub>2</sub>e/ MWh</li> </ul>	0.76	<b>0.215 *</b>	60%	<ul style="list-style-type: none"> <li>Increased share of renewable energy for deep decarbonization</li> <li>Process efficiency improvements</li> <li>Replacement of condenser tubes with graphene coatings</li> </ul>
	<hr/>				
<b>Water Security</b>	<ul style="list-style-type: none"> <li>Specific fresh water intake (m<sup>3</sup>/MWh)</li> </ul>	1.10	<b>0.591</b>	46%	<ul style="list-style-type: none"> <li>Maintaining zero liquid discharge across operations</li> <li>Optimising utilisation of rain water harvesting system</li> <li>Installation of technology for operating cooling towers with higher Cycles of Concentration with modified chemical regime</li> <li>Reuse of treated effluent of Sewage Treatment Plan for horticulture</li> </ul>
	<hr/>				
<b>Waste</b>	<ul style="list-style-type: none"> <li>Specific Waste (Ash) Generation (t/MWh)</li> </ul>	0.070	<b>0.032</b>	54%	<ul style="list-style-type: none"> <li>Integrated Strategy towards efficient waste management</li> <li>Optimizing utilisation of low ash coal</li> </ul>
	<ul style="list-style-type: none"> <li>Waste Recycled - Ash (%)</li> </ul>	100	<b>100</b>	-	
<hr/>					
<b>Air Emissions</b>	Specific process emissions(Kg/MWh)				<ul style="list-style-type: none"> <li>Ensuring ESP (Electrostatic Precipitator) Fields availability</li> <li>Optimising Lime dozing system efficiency</li> <li>Process efficiency improvements</li> </ul>
	<ul style="list-style-type: none"> <li>PM</li> </ul>	0.16	<b>0.053</b>	67%	
	<ul style="list-style-type: none"> <li>SOx</li> </ul>	1.78	<b>0.683</b>	61%	
	<ul style="list-style-type: none"> <li>NOx</li> </ul>	1.01	<b>0.373</b>	63%	
<hr/>					
<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>Biodiversity at our operating sites</li> </ul>	-	Achieve <b>'no net loss'</b> of biodiversity		<ul style="list-style-type: none"> <li>Continue to enhance Biodiversity at all our locations and operations to achieve 'no net loss'</li> <li>Increase green cover across operations</li> <li>Eco-system studies (all seasons) in progress for finalising a Bio-diversity management plan at Barmer location.</li> </ul>

## Key Highlights



**Climate Change**

- TCFD – Peer group assessment completed by ESG consultant
- ESG survey of suppliers in progress for assessment of supply chain sustainability of the value chain
- Deep decarbonization – Share of renewable energy in operating capacity increased through organic capacity addition and bolt-on acquisitions



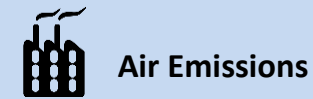
**Water Security**

- Maintain zero liquid discharge across operations
- Reuse of treated effluent of Sewage Treatment Plant for horticulture



**Waste**

- Ash silo (45000 MT) completed in Ratnagiri. Ash conveying from Power plant to the Silo has now started and conveying issues are being resolved simultaneously
- Continue 100% Ash utilization initiatives at all plants through tie-ups with cement factories & similar businesses



**Air Emissions**

- Ensuring ESP (Electrostatic Precipitator) Fields availability
- Process efficiency improvements being done in all plant locations
- Lime Dozing system availability and parameters optimization at Barmer for reduced air emissions

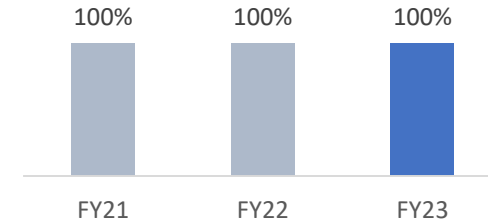


**Biodiversity**

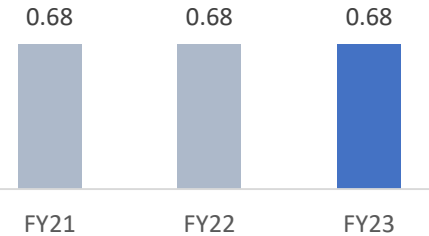
- Ecosystem studies (all seasons) completed at barmer plant.
- Increase green cover across operations
- Biodiversity assessments for No Net Loss started at 5 other locations of JSW Energy

## Performance

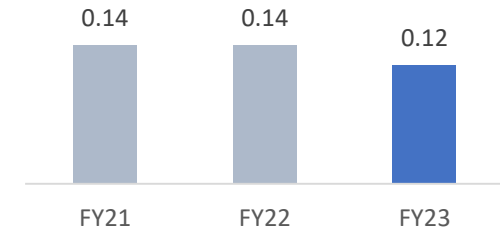
Ash Utilisation (%)



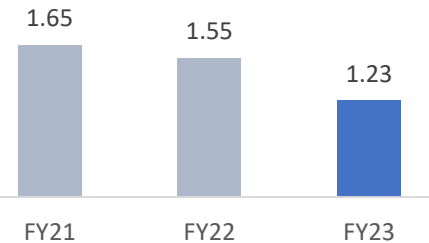
CO2 intensity (tCO2e/MWh)



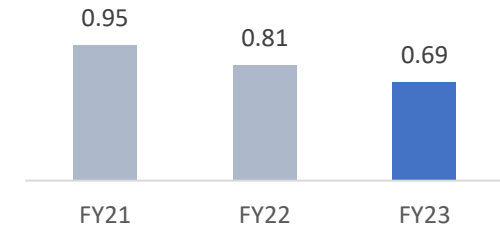
PM Emissions (kg/MWh)



SOx Emissions (kg/MWh)



NOx Emissions (kg/MWh)

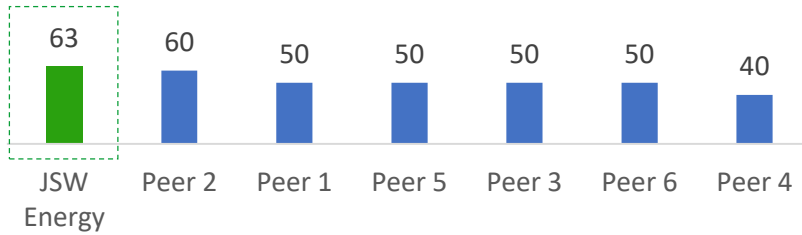


# Advantage JSW: Superior ESG Profile

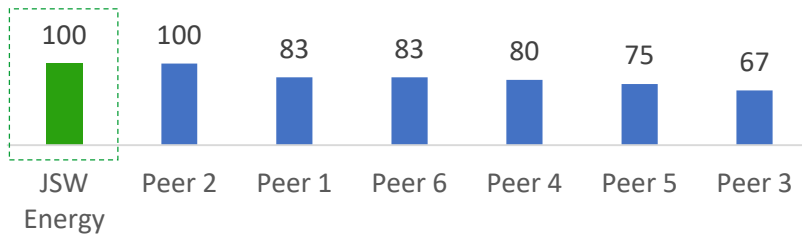


## Board & Governance

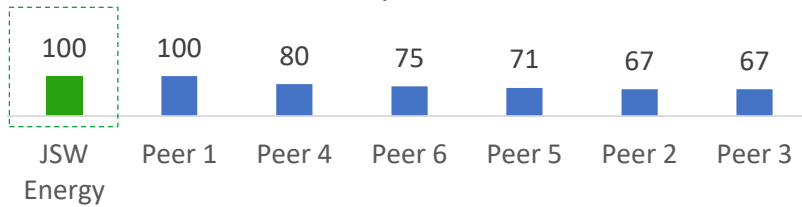
### % Board Independent



### % Audit Committee Independent

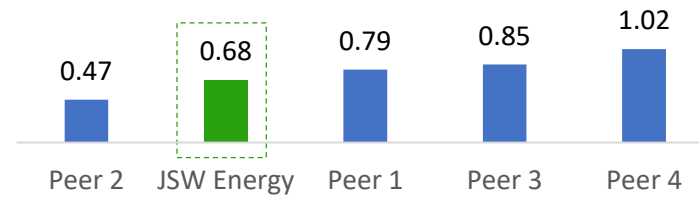


### % Nomination & Remuneration Committee Independent

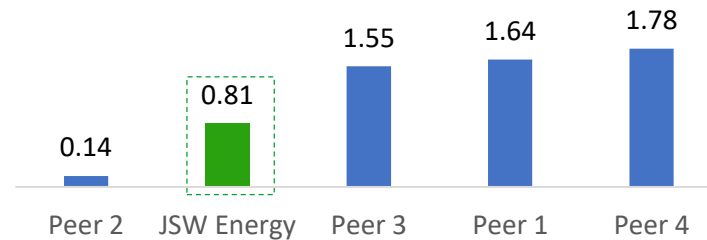


## Air Emissions

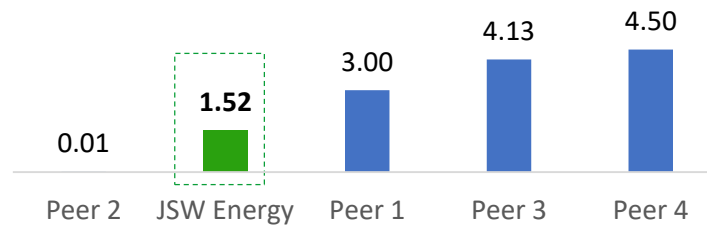
### CO2 Intensity (t CO2e/MWh)



### Specific NOx Emissions(Kg/MWh)



### Specific SOx Emissions(Kg/MWh)

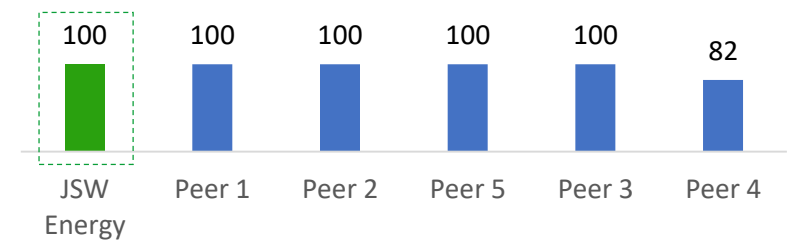


## Water & Waste Management

### Specific Fresh Water Consumption (m3/MWh)



### Ash Utilisation (%)



## ESG Ratings



**JSW Energy**  
Peer 6  
Peer 1  
Peer 3  
Peer 4  
Peer 2  
Peer 5

**A-**  
**C**  
**B**  
**B**  
**D**  
**F**  
**F**



**JSW Energy**  
Peer 6  
Peer 1  
Peer 3  
Peer 4

**BB**  
**A**  
**BBB**  
**CCC**  
**CCC**

# Sustainability: Empowering Our Communities



# Sustainability: Empowering Our Communities



## Health & Nutrition

- Completed upgradation of Modular Operation Theater & constructed Modern Post Operation Ward; handed over to Government hospital in Barmer. ~3000 patients will benefit annually through these OTs
- Distribution of Nutrition Support to tuberculosis Patients of Kalpa Block of District Kinnaur on monthly basis



## Education & Learning

- Wall painting work at Government School in Barmer for awareness generation and promotion of tradition folk music.
- Provided study material and installed Smart TV, UPS Inverter & Battery, Board in the 14 schools in Barmer District.
- Field visit to all Gram Panchayats under 'Udaan' Scholarship program. Total 77 Students scrutinized for the scholarship.



## Sports Promotion & Development

- Bringing powerful transformation in the field of sports with 'Shikhar' program supporting 120 Boxers
- Development of basketball court for promotion of sports among youth of Barmer District



## Skill Development & Livelihoods

- One year CHARKHA Training completion certificates distribution to CHARKHA Artisans. Products showcased in an exhibition organized by NABARD at Mandi (Himachal Pradesh)
- Mobilisation and trade training of 500 women artisans, registration of producer company in Barmer, helped to leverage the skills to execute orders of ₹20 lakhs



## Renewable Energy

- Supply and installation of 12 Solar High Mast Lights, 172 Solar Street Lights and a solar Geyser (300 LPD) in community area at Sholtu
- Installed 284 Solar powered lights in 25 Gram Panchayat of Barmer block during the current FY.



## Community Development

- Installed 55 Hand-pumps at remotely located habitations of Barmer block
- Covered 5 Km village road in Barmer by plantation & maintenance of 1,734 saplings alongside roads in village area
- Laying of drinking water pipe line of ~4 Kms benefiting population of ~500 people and construction of water storage tank of 40k liters capacity covering 179 households



[Health & Nutrition](#)



[Water & Environment](#)



[Waste Management](#)



[Agri-livelihoods](#)



[Education](#)



[Women's BPO & Livelihoods](#)



[Skill Enhancement](#)



[Art, Culture & Heritage](#)



[Sports](#)

# Sustainability: Recognition of Global Best Practices



Leadership' (A-) rating in CDP Climate Program 2022.



The Sword and Globe of Honour by British Safety Council



League of American Communication Professional (LACP): Integrated Annual Report 2022 received a 'Gold Award' in the spotlight competition organised by the LACP



Grow Care Gold Award: Karcham Wangtoo & BASPA II plants recognized for Occupational Health & Safety (OHS)



ESG India Leadership Award: JSW Energy has won with 'Best Air Pollution Management Award' for actively leading ESG transformation and commitment towards sustainability

# Strong Board Oversight and Leadership



**Mr. Sajjan Jindal**  
Chairman & Managing Director



**Mr. Prashant Jain**  
Joint Managing Director & CEO



**Mr. Pritesh Vinay**  
Director (Finance)



**Mr. Parth Jindal**  
Non-Executive, Non-Independent Director



**Ms. Rupa Devi Singh**  
Independent Director



**Mr. Sunil Goyal**  
Independent Director



**Mr. Munesh Khanna**  
Independent Director



**Mr. Rajeev Sharma**  
Independent Director



**Mr. Desh Deepak Verma**  
Independent Director

- **Majority Independent Board: 5/9 Directors are Independent**
- **Fully Independent Audit and Remuneration Committees**

- Audit Committee
- Compensation & nomination & remuneration Committee
- Risk management Committee
- Stakeholder's relationship Committee
- Corporate social responsibility Committee
- Sustainability Committee
- Permanent invitees to Sustainability Committee

## Our Core Principles



Accountability



Social Responsibility



Transparency



Environment



Integrity



Regulatory Compliance



# FY2023 – A Year of Delivering Promises



Hydro Power Plant - Turbine



# A Year of Delivering Promises

✓ Operating Capacity Enhanced by 44% (~2GW) in FY23

✓ 2<sup>nd</sup> highest Operating EBITDA and Adjusted PAT ever

✓ Won the largest single location BESS project of 1GWh

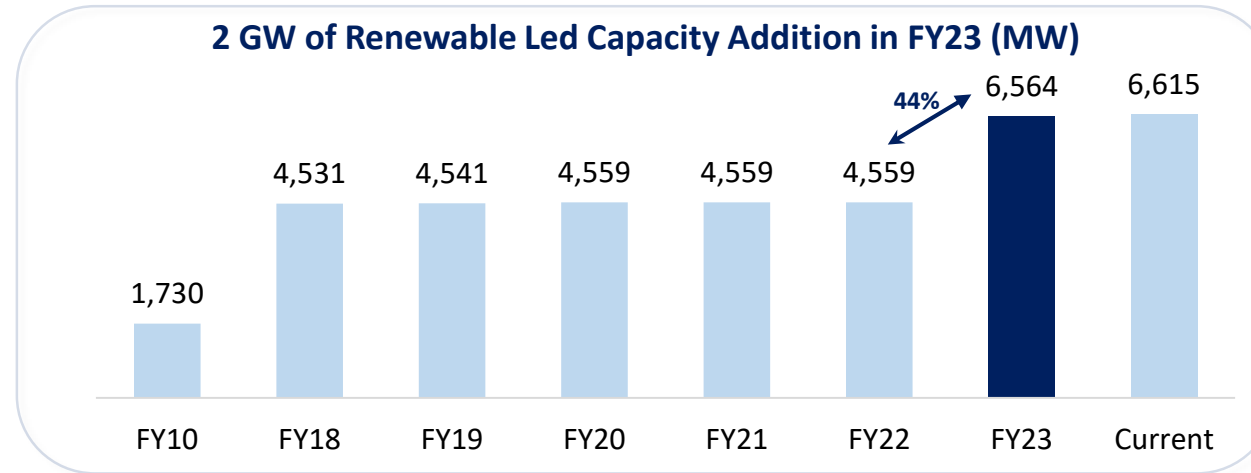
✓ Won Hydro Pump Storage project of 2.4GWh

✓ Contracted India's largest commercial scale Green H<sub>2</sub>

✓ Backward Integration to Solar Module via PLI

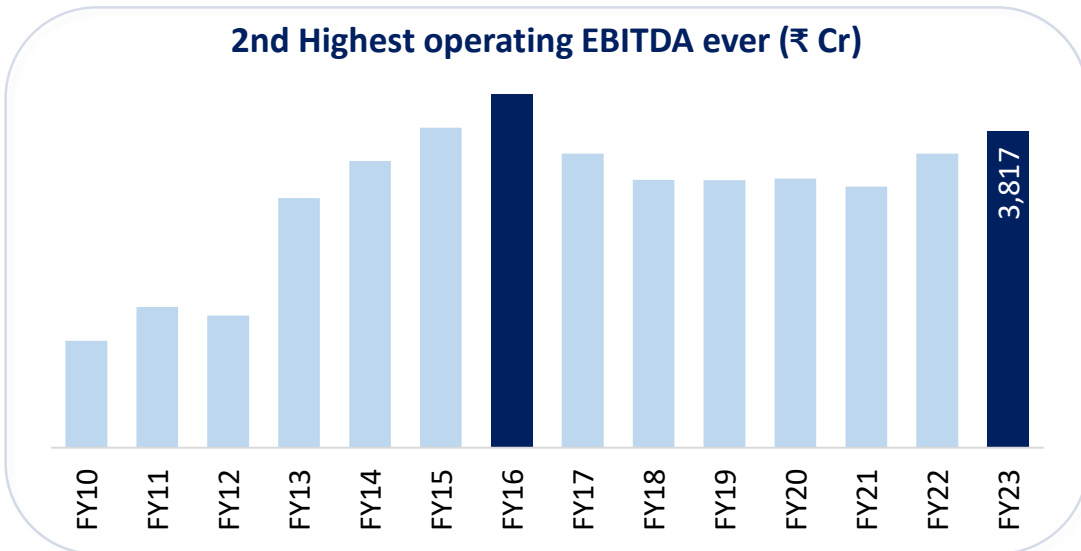
# Delivering Sustainable Growth – Resilient Business Model

Increased capacity by ~2GW (44%) YoY

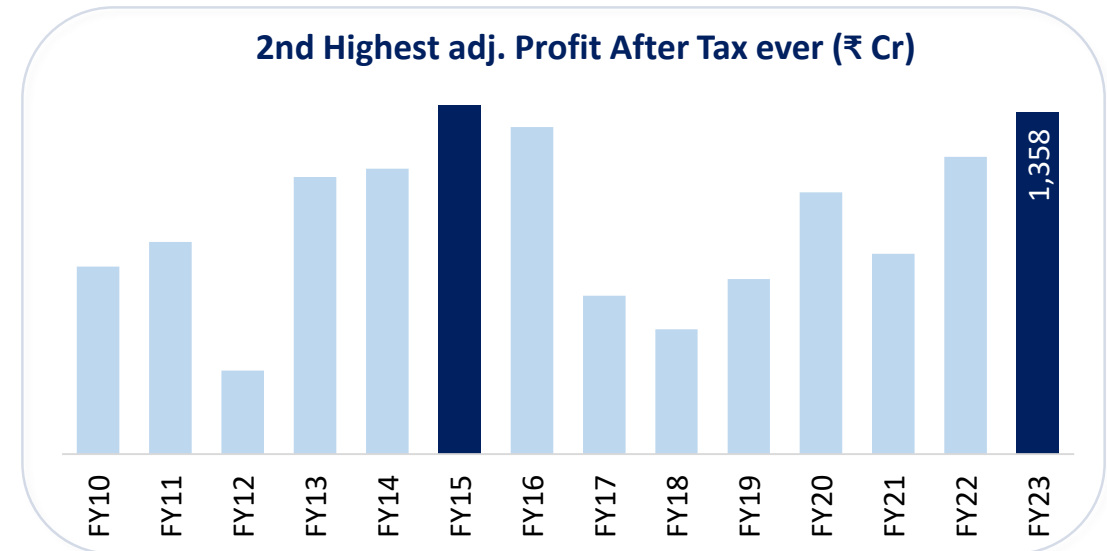


## 2<sup>nd</sup> highest operating EBITDA and adjusted PAT ever

### 2nd Highest operating EBITDA ever (₹ Cr)



### 2nd Highest adj. Profit After Tax ever (₹ Cr)



Operating EBITDA and Adj. PAT are adjusted for one-offs and exceptional items



# Acquired 1,753 MW of Mytrah RE Assets

- ✓ JSW Energy Completed the Acquisition of RE Portfolio of Mytrah Energy
- ✓ Largest acquisition by the Company. 1,753 MW comprises of 1,331 MW of wind capacity and 422 MW (487 MWp DC) of solar
  - Acquisition of 15 SPVs and 13 ancillary SPVs having 1,449MW of total installed RE capacity
  - Infusion of Optionally Convertible Debentures (OCDs) with a right to convert into equity for the balance 2 SPVs having RE assets of 304 MW.
- ✓ EV of ~ ₹10,150 Crs, after adjusting for net current assets and other adjustments under the Share Purchase Agreements

## Initial Transaction Consideration

Particulars	Amount (₹ Cr)
Enterprise Value excluding Net Working Capital (EV) (A)	<b>11,934</b>
Net Working Capital *(B)	<b>1,403</b>
Enterprise Value including Net Working Capital (A-B)	<b>10,531</b>
Normalised EBITDA#	<b>~1,650</b>
Normalised EV/EBITDA	<b>~6.4x</b>

\* Including receivables and working capital debt # Normalised EBITDA: post optimization and improvement capex

## Generation Improvement



### Action Plan

- Improve Machine Availability (MA)
- Restoration of WTGs
- Focused approach –
  - 76% of generation is from 10 sites
- Transmission loss improvement
- Power curve correction

~700 MUs improvement

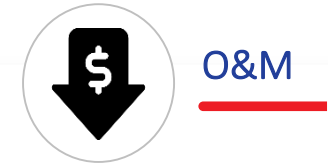


### Action Plan

- DC Capacity augmentation (38 MW) to add ~20 MU's
- Improve Performance Ratio (PR) to add ~12 MUs
  - Spares Management
  - Improve tracker availability

~45 MUs improvement

## O&M Optimisation



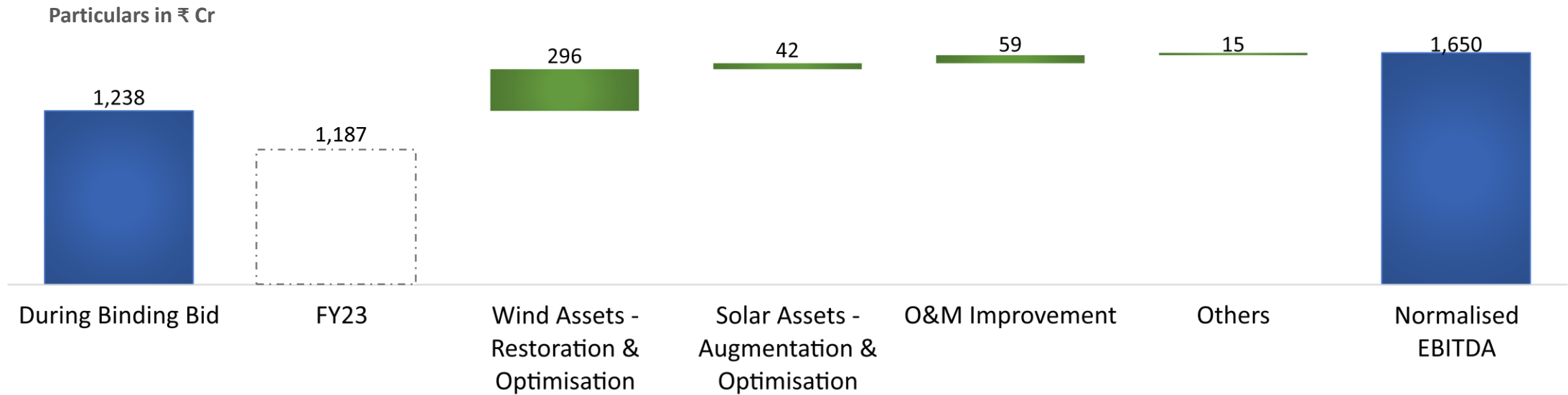
### Action Plan

- Self O&M team
- Resource management
- O&M Monitoring & Performance analysis
- Co-location advantage
- Periodical asset quality audits and third party inspection

Savings of ~ ₹ 60 Crs

**Deliver EBITDA improvement of ~ ₹ 450 Crores on a sustained basis**

# Normalised EBITDA will be achieved ahead of articulated time



## Focused interventions driving encouraging initial response

### Wind

- Total 109 WTG's restored since April-23, remaining 25 WTGs to be restored by June-23.
- Maniyachi (252 MW) site restored and available for full wind season (~+60 MUs)
- Machine Availability (MA) up by ~500 bps in April-23 to 92%

### Solar

- Solar Trackers availability and better spare management led to improved PR in April-May 23
- Higher PR led to generation increase of 7% in April-23
- Capacity augmentation to be completed by Oct-23
- Planned capex infusion for civil, infra and electrical works

# Attractive Refinancing driving Finance Cost Saving of > ₹ 240 Cr p.a.

## Benchmarked Refinancing Package in place at the time of Consummation of Deal

Delivering significant value immediately upon acquisition

Interest cost savings of more than 240bps

Maturity life to match the useful life

Payment to match Cash flow

Restoration Capex

Co-obligor group to service debt

DSRA funding

## Attractive Debt Sizing Package – saving 250 bps of Interest Rate and Right-sizing of Debt

Debt sizing : 2 SPVs having RE assets of 304 MW.

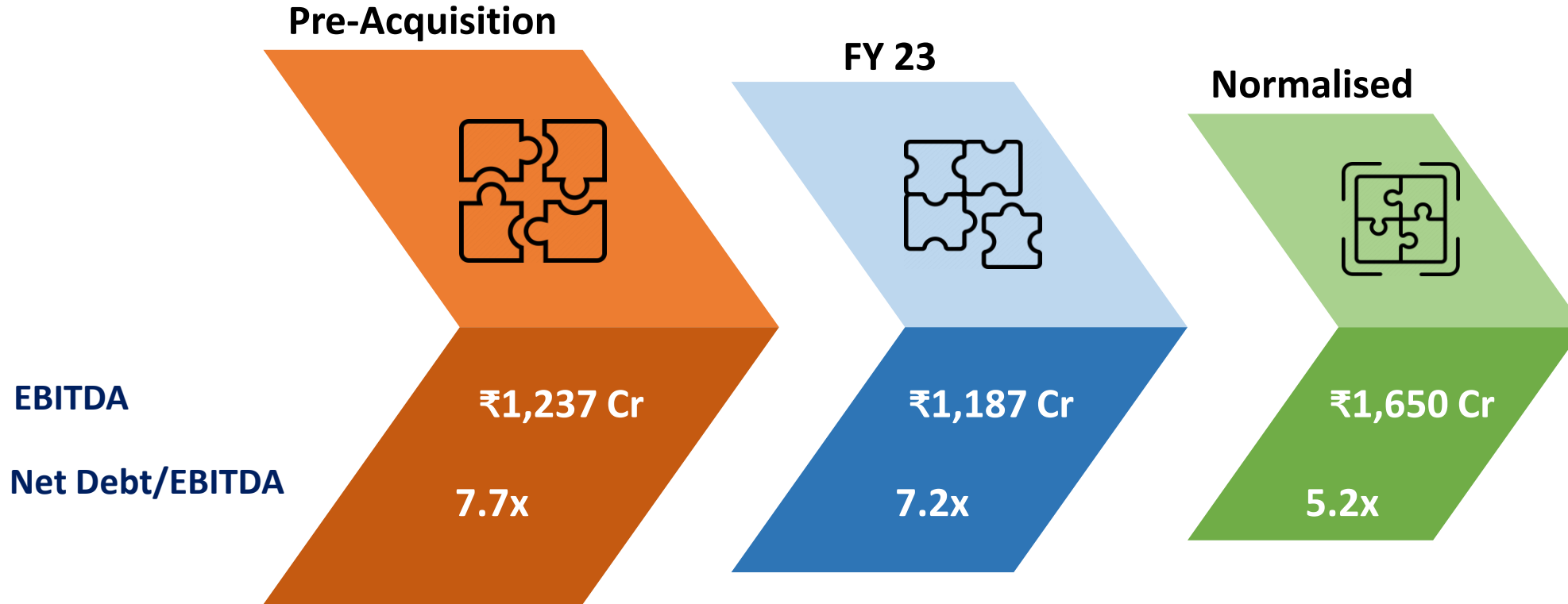
SPV.1. Process Completed in April 2023

SPV 2. Under Progress

Debt of ₹ 2,100 Cr borrowed with lower interest cost and with an elongated repayment schedule to match the cash flows

Largest Refinancing Package in India Renewable Energy Sector

# Mytrah – Underlying Normalised Net Debt/EBITDA at 5.2x

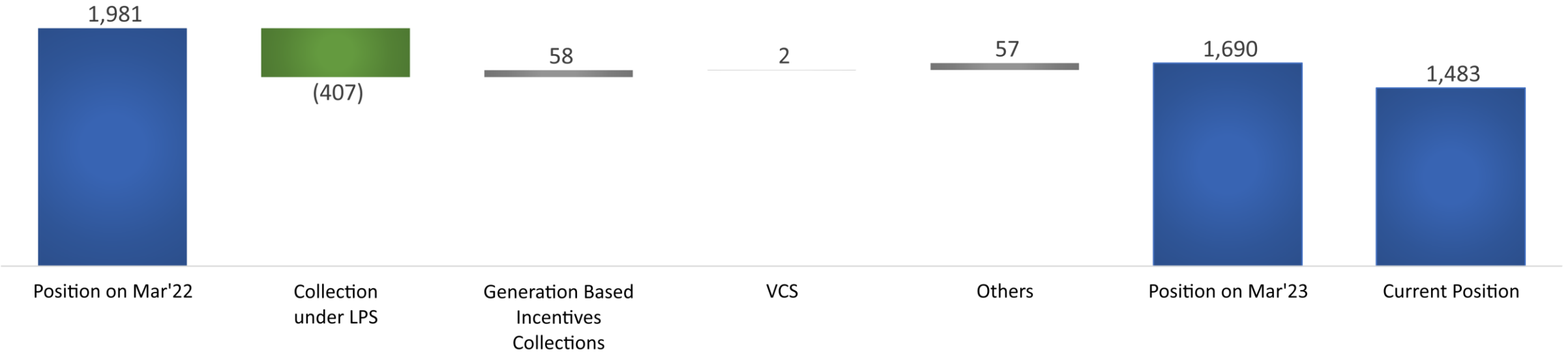




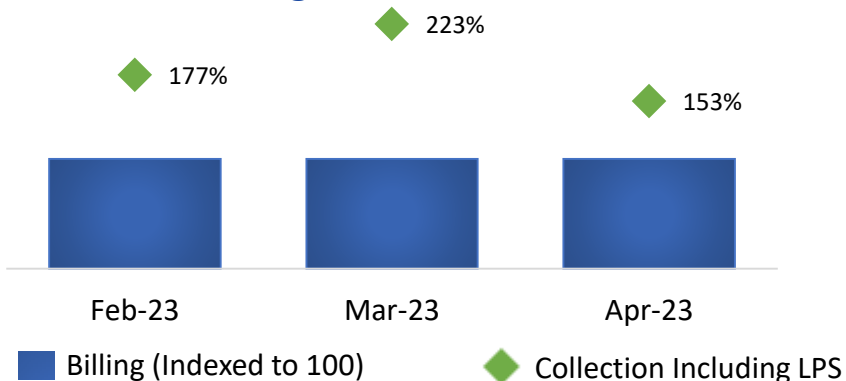
# Receivables Cycle Improving – Focused Collection Efficiency in Play

## Strong collection in Mytrah Portfolio's Receivables underway

Particulars in ₹ Cr



## Monthly Collection consistently above the billing, leading to lower receivables



## JSW's strong collection efficiency in play

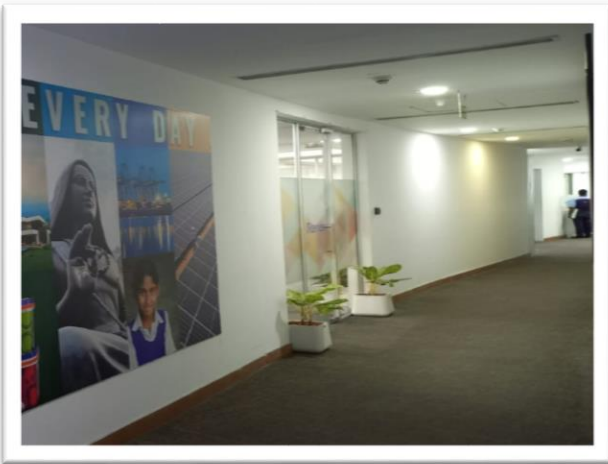
- Monthly collection rate consistently above the billing rate
- Focus on collection efficiency help's improve our receivables position in FY23 vs FY22
- Generation based incentives of ₹85 Crores collected till now

**Optimise Receivables Cycle to Healthy Levels within 12 months**

# Post Merger Integration – Progressing on track

## People

- 102 employees on-boarded
- Additional 20% lateral hires and internal transfers to drive integration and asset optimization.
- Harmonisation of HR Processes and Systems underway
- Business Process / Financial Controls integration rolled out



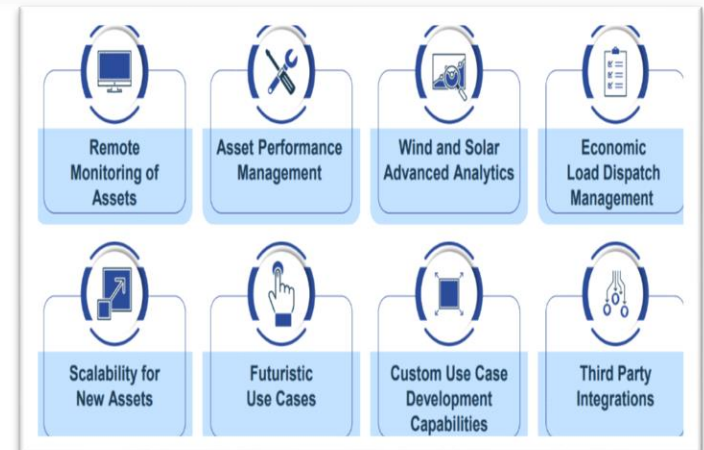
## Safety & Sustainability

- JSW's HSE & Sustainability standards rolled out
- Monitoring of Contractor's/ Vendor's HSE obligations
- Sustainability Management Plan harmonized with JSW Energy's standards



## SAP and IDCC

- SAP Integration Completed; IT Systems Upgradation underway
- Setting up Integrated Digital Control Centre (IDCC) at Hyderabad for JSW Energy's RE businesses
  - Integrated, real-time intelligence on Performance of various assets
  - Reduce generation losses across locations



## Status and Plan

### Unit 1

- 11 kV Line Supply for Construction Works
- Turbine, generator, boilers & auxiliaries to finish in Sep-23
- Final start up and reliability Test in Sep-23

### Unit 2

- Mechanical and Electrical work scheduled to start in Jun-23
- Final start up and reliability test in Mar-24

## Mechanical Works

- Turbine-Generator coupling run out and free run out completed and readings are within limit
- NDT of Turbine, Generator and TDBFP's in progress
- Boiler internal hydro test completed
- Boiler scaffolding erection work completed
- Furnace oil pumps & strainers servicing completed

## Electrical Works

- Generator rotor thread out completed
- 400kV Tower foundation work in progress
- Power transformer testing completed
- 6.6kV HT Switchgear overhauling work in progress
- Motor overhauling work in progress

## Regulatory Approvals

- **MOU** with Govt. of Odisha: Expected in May-23
- **Environment Clearance** – Consent to operate Unit 1 received, Applied EC for Unit -2
- **PESO license** : Drawings are approved, site inspection in Jun-23
- **Fuel Supply Arrangement** : Applied for coal linkage under Shakti Policy. Participating in e-auction under Shakti B-iii

# Energy Storage – Unique Value Proposition as an Early Mover

## Battery Energy Storage System (BESS)

LoA received for 500MW/1000 MWh SECI project in Jan-23

- Build Own Operate Transfer (BOOT) with tenure of 12 years
- Battery Storage Purchase Agreement for 60% of the capacity with SECI and balance is open for sale
- Identified site is at Fatehgarh, Rajasthan
- Participate in ancillary market with the open capacity
- Expected commissioning by CY24

Particulars	SECI (BESS)
Tender capacity	500 MW / 1000 MWh
No. of hours backup	2 hours
Purchase agreement tenure	12 years
RTE	Min 85%
No of cycles per day	2

## Hydro Pump Storage (PSP)

- Received LoI for 2.4GWh (300 MW x 8 hours) PSP from Power Company of Karnataka Ltd (PCKL)
  - Target commissioning : 36 months from signing of PPA
  - PPA Duration: 40 years
  - JSW's proven experience with managing the largest hydro portfolio in the private sector
- Large Resources secured for ~72GWhr PSP/ 10.8 GW

State	MoU/LoI Dates	Capacity (GW)
Karnataka	22-Jun 22-Nov	0.9
Maharashtra	21-Sep 22-Sep	3.0
Uttar Pradesh	22-Nov	1.7
Rajasthan	21-Dec	1.2
Andhra Pradesh	23-Mar	1.5
Telangana	22-Apr	1.5
Chhattisgarh	22-Aug	1.0
<b>Resources Secured</b>		<b>10.8</b>

# Green Hydrogen Opportunity – JSW Energy’s Unique Positioning

G

RTC RE Power at competitive prices

- Power is ~65-70% of variable cost for Green H<sub>2</sub> production
- Green H<sub>2</sub> a natural progression path for power companies banking on its competitive power cost
- JSWEL has RE resources with good CUF and profile along with large energy storage resources

R

Monetization of byproducts

- Valorization of Oxygen produced generating by-product credits
- O<sub>2</sub> produced in the Green H<sub>2</sub> to also be a part of the offtake agreement

E

Scalability

- JSWEL’s backward integration to solar module manufacturing along with secured energy storage resources, provides optionality of scaling up its Green H<sub>2</sub> capacity going ahead
- Low LCoE for Green H<sub>2</sub> provides optionality for manufacturing further downstream derivatives

E

Co-location with Offtaker

- Co-location of Hydrogen Complex with JSW Steel’s ecosystem
- Sharing of common infrastructure like water, roads, rail, etc.

N

Project Experience

- Ability to execute and build plants at costs well below industry standards
- Operational excellence - Industry leading efficiency & high Equity IRRs

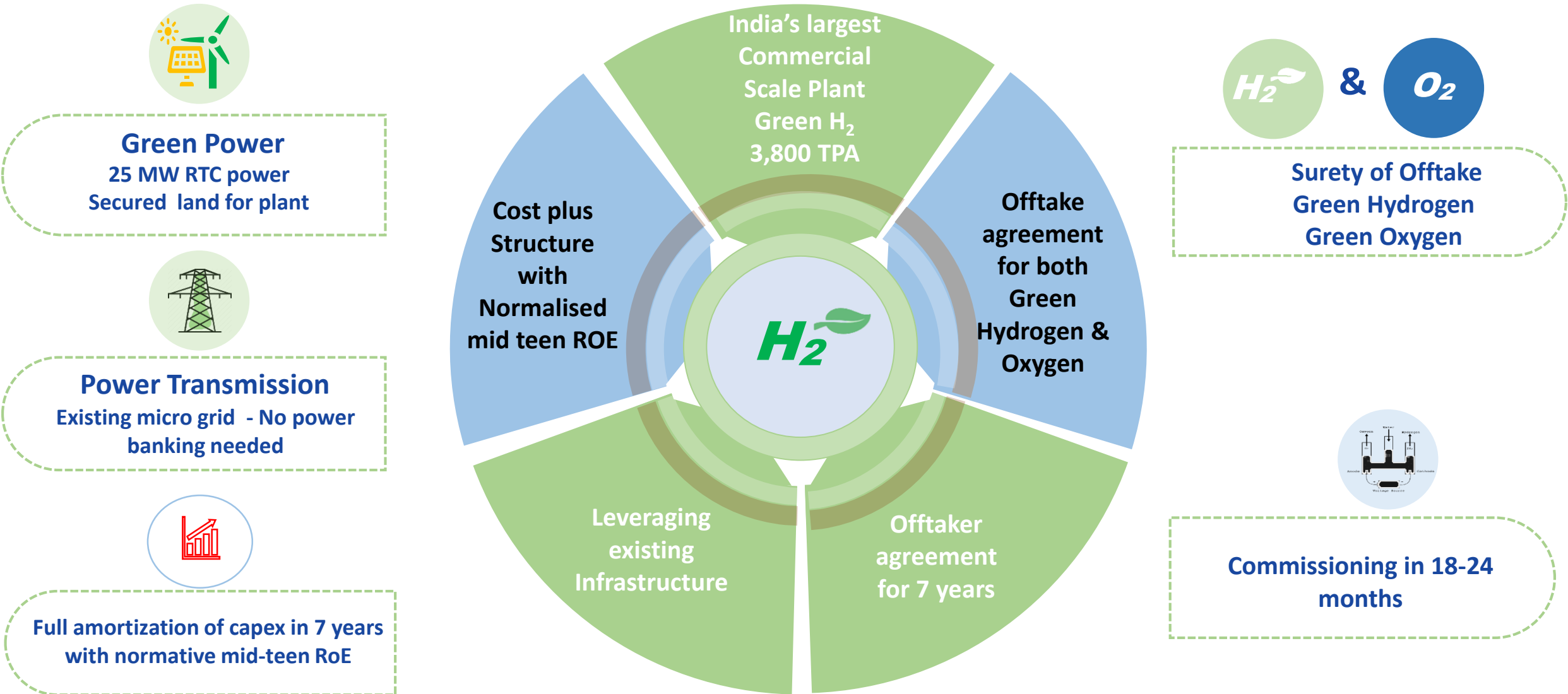
H<sub>2</sub>

Mutually Beneficial

- Green H<sub>2</sub> project win-win for JSWEL and JSW Steel
- Decarbonisation for hard to abate sector (Steel)
- Using Green H<sub>2</sub> increases the productivity of Direct Reduced Iron (DRI) process and will help offset Carbon Tax on Exports of Steel.

# Contracted India's Largest Commercial Scale Green Hydrogen Project

## India's First Plant to Produce Green Hydrogen for Production of Green Steel



Learning Curve from this project to offer Optionality to Scale Up for Future Projects

## NEED FOR BACKWARD INTEGRATION

Solar power is critical to transition towards green power

Tariff policy (BCD) restrictive, leading to high landed cost of cells and modules

Grid connected projects must use modules listed in ALMM

Supply reliability issue, limited domestic module capacity vs the requirement



Allocated 1 GW capacity under PLI scheme for Wafer-Cell-Module

## BACKWARD INTEGRATION AT JSW ENERGY

Allocated 1 GW of capacity under PLI for W-C-M

Supply Chain Derisking - strategic intent to utilize solar modules for captive usage

Eligible for ~₹ 320 Cr benefits under PLI scheme. Additional Incentives from State Government are under negotiation

Securing Resources – Location identified in Rajasthan, necessary approvals and ordering are in process

Capacity to be operational by April 2025

Capital expenditure of ~₹ 1,600 Cr



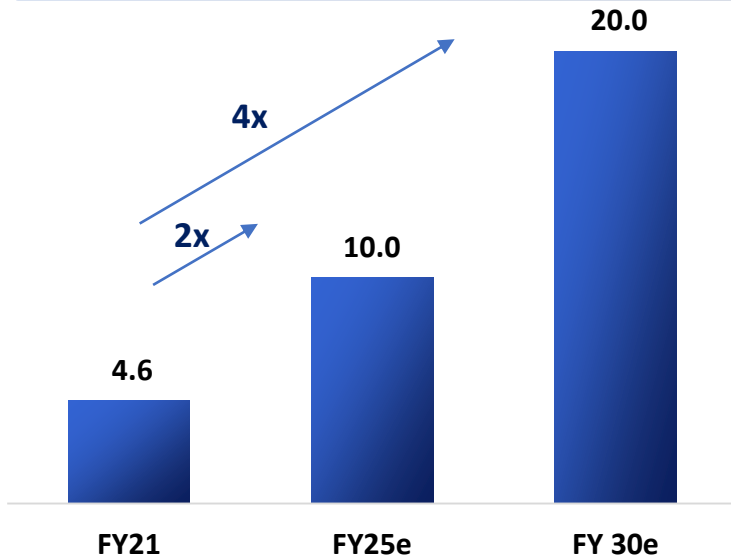
# 2030 Road Map for Integrated and Sustainable Growth

**Strategy 2.0**



# In 2021 – we crafted our Growth road map till 2030 under Strategy 1.0

## Strategy 1.0 – Focus on Generation only



FY25 – 10 GW | FY30 – 20 GW

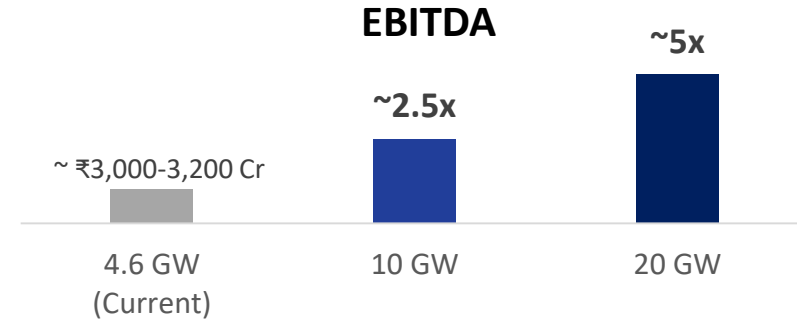
Total Capex of >₹75,000 Cr envisaged

### Growth Driven by

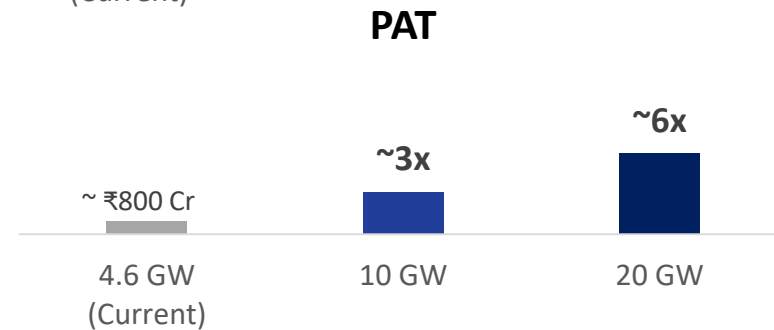
- Strong Balance Sheet
- Healthy Internal Accruals
- No compromise on returns

## Financial Projections in 2021

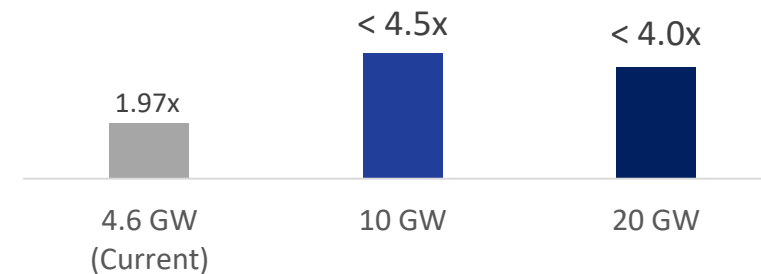
20% CAGR  
(FY21-30)



22% CAGR  
(FY21-30)



### Net Debt/EBITDA



Planned for a 19% CAGR increase in Balance Sheet size till FY30

# Robust Delivery - Outperformed and Broad-Based our 2025 Milestone

Well placed to achieve 10 GW of generation capacity ahead of stated timeline of 2025 with foray into New Age Businesses

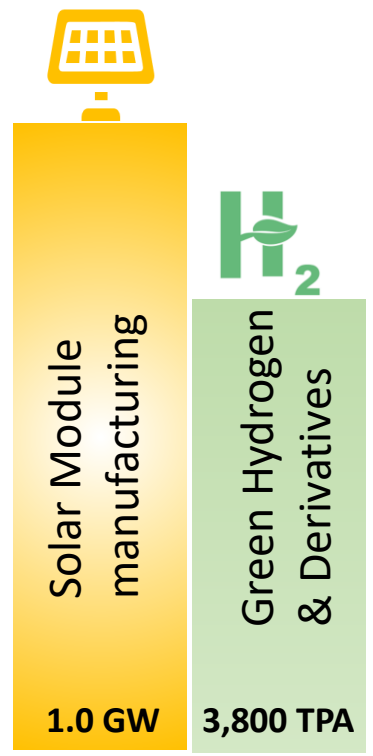
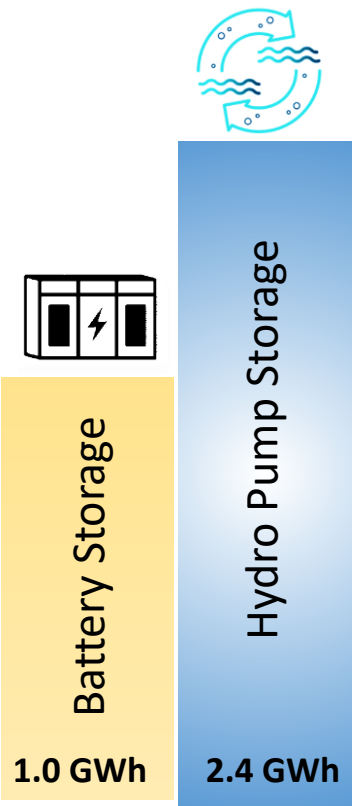
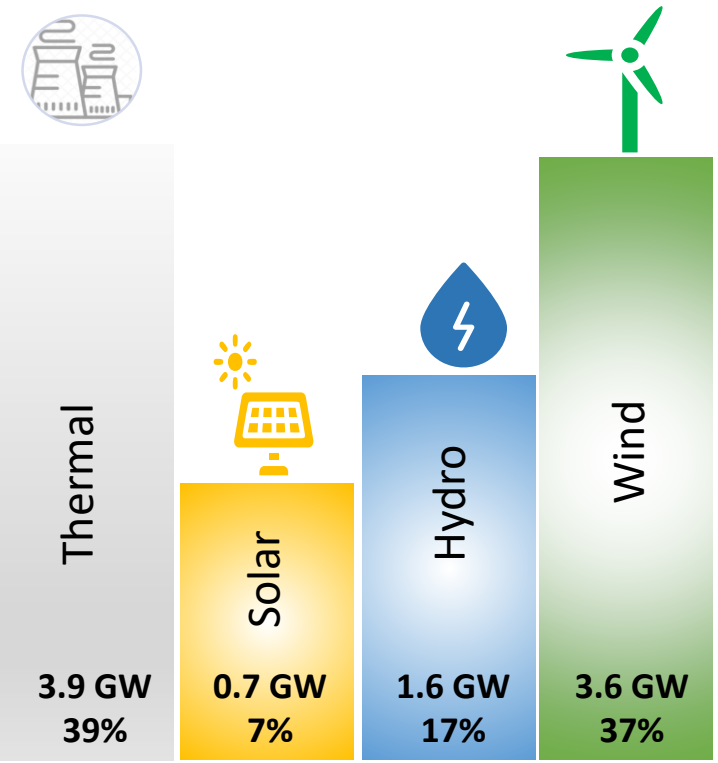
## Power Generation | Energy Storage | Energy Products & Services

### 9.8 GW Installed Capacity by CY24

### 3.4 GWh of locked in capacity

### Solar Module & Green H2

RE 5.9 GW  
Thermal 3.9 GW



# Well Diversified Portfolio – Focused on Maximising Cash Returns

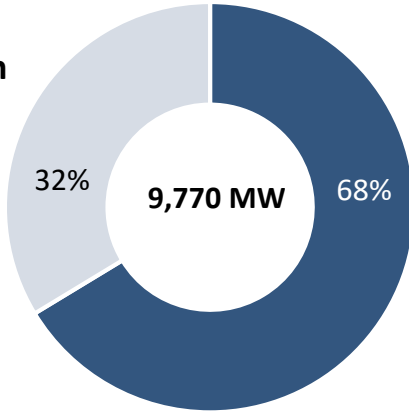
## Capacity Breakdown

**Generation 9,770 MW**

**Under-construction  
3,155 MW**

Wind 2,215 MW  
Thermal 700 MW  
Hydro 240 MW

**Commissioned by CY24**



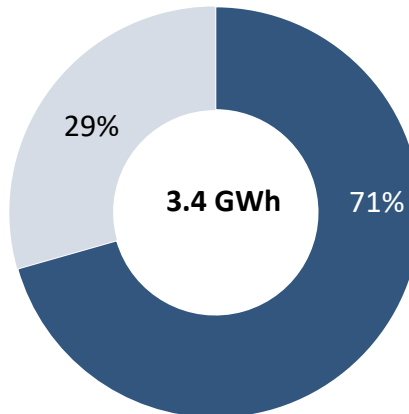
**Installed  
6,615 MW**

Thermal 3,158 MW  
Wind 1,409 MW  
Hydro 1,391 MW  
Solar 657 MW

(Includes 1,753 MW Mytrah RE Assets)

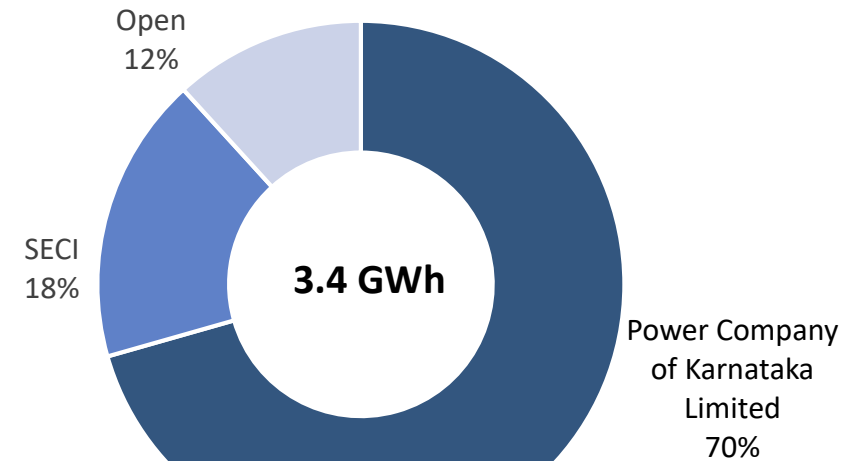
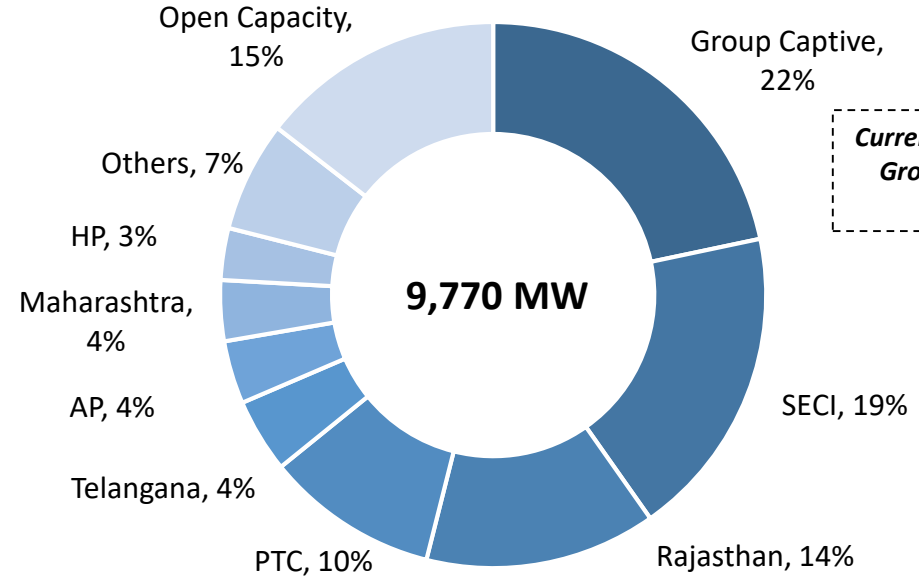
**Storage 3.4 GWh locked in**

**BESS  
1.0 GWh**



**Hydro PSP  
2.4 GWh**

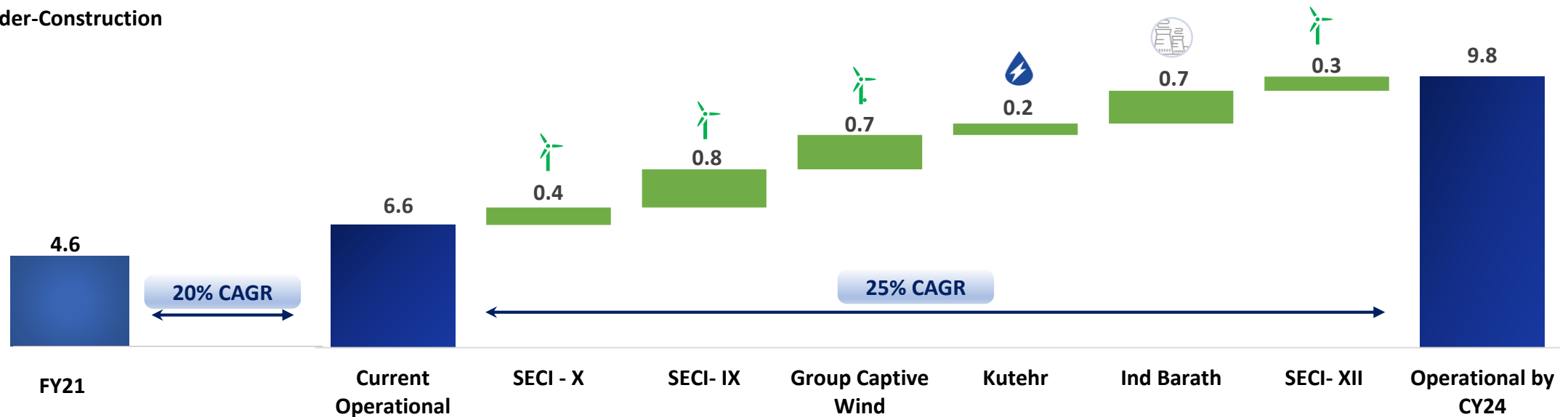
## Diversified Offtakers



# 25% CAGR growth in Installed Generation Capacity by 2024 + 1 GWh BESS

Under Construction 3.2 GW, to be Commissioned by CY24

 Under-Construction



Plant (MW)	Commissioning	PPA	Capital Expenditure
SECI IX (810)	Progressively from Q1 FY24	25- year; SECI	Total: ₹16,660 Cr Committed : ~₹13,150 Cr Spent: ~₹6,730 Cr
SECI X (450)	Progressively from Q3 FY23	25- year; SECI	
Group Captive - JSW Steel (958)	Progressively from Q1 FY24	25- year; JSW Steel	
225MW Solar operational			
Kutehr HEP (240)	Sep-24	35- year; Haryana Discom	Total: ₹ 2,200 Cr Total: ~₹ 2,700 Cr
SECI XII (300)	Mar-25	25- year; SECI	
Ind-Barath (700)	FY24	-	

# Opportunity to Accelerate Growth – Proven Execution Capability

## Enhanced Value creation

### Opportunities

India requires ~ 40 GW of RE capacity addition per year	RE+ Storage to plug increasing Peak Demand-Supply Gap
Bids- Shift towards RTC power from Plain Vanilla Solar and Wind	Alternatives like Green Hydrogen required to meet net zero target
Manufacturing opportunities (PLI) – For supply chain Derisking	Strong De-carbonization need

### JSW Energy Edge



## Strategy 2.0



**ELECTRONS TO MOLECULES**  
Green Hydrogen Production  
& downstream derivatives



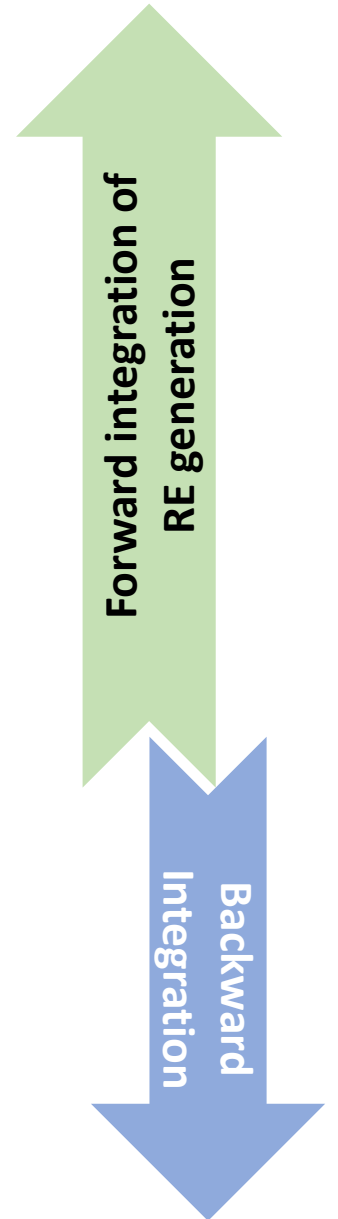
**ENERGY STORAGE : Large Portfolio of Resources**  
Pump Hydro Storage  
Battery Energy Storage



**GENERATION CAPACITY**  
Locked in Sites with Solar / Wind  
Potential



**BACKWARD INTEGRATION**  
Solar Module manufacturing (W-C-M)  
WTG under Licensing / Contract Mfg.



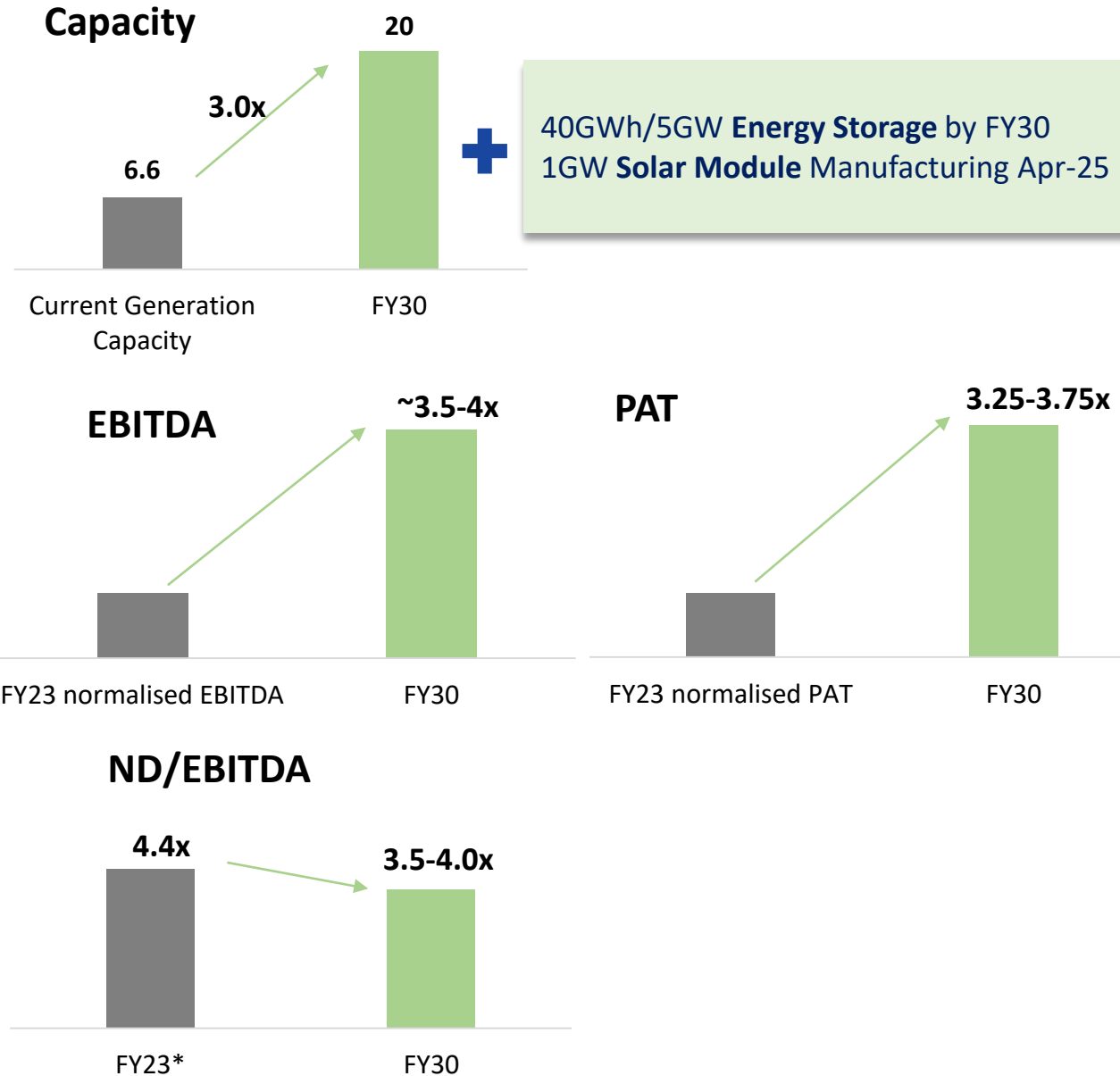
# Strategy 2.0 – 20 GW Generation + 40 GWh of Storage by FY30

## Pillars for Self sustainable and Integrated road map

- Sustainable value creation focused on Cash Returns
- Internal Accruals and BS Headroom (no external capital)
- Organisational Capability and competency

## Growth Multipliers

- Portfolio generating healthy CF & 18% cash return<sup>1</sup>**
- ❖ Steady operations and robust financials
    - Portfolio (excl. Mytrah) Cash PAT of > ₹2,500 Crore p.a.
    - Incremental cash accruals from commissioning of Under construction projects and integration of M&A deals
  - ❖ **85% of portfolio tied-up under Long Term PPA**
    - 85% of portfolio tied-up under Long Term PPA; Remaining Avg. Life of Assets/PPA: ~25 years / ~18 years
  - ❖ **Financial flexibility** enhanced by equity investments: JSW Steel shares: 7 Cr shares held (Value as on Mar 31, 2023: ₹~4,819 Cr)
  - ❖ Healthy receivables management and low working capital cycle

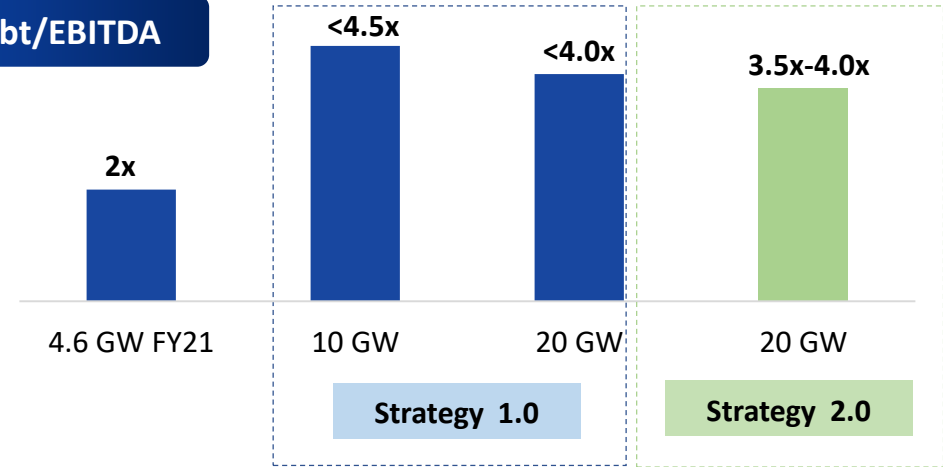


# Revised Guidance 2.0 (2023-2030) – No Equity Dilution Needed

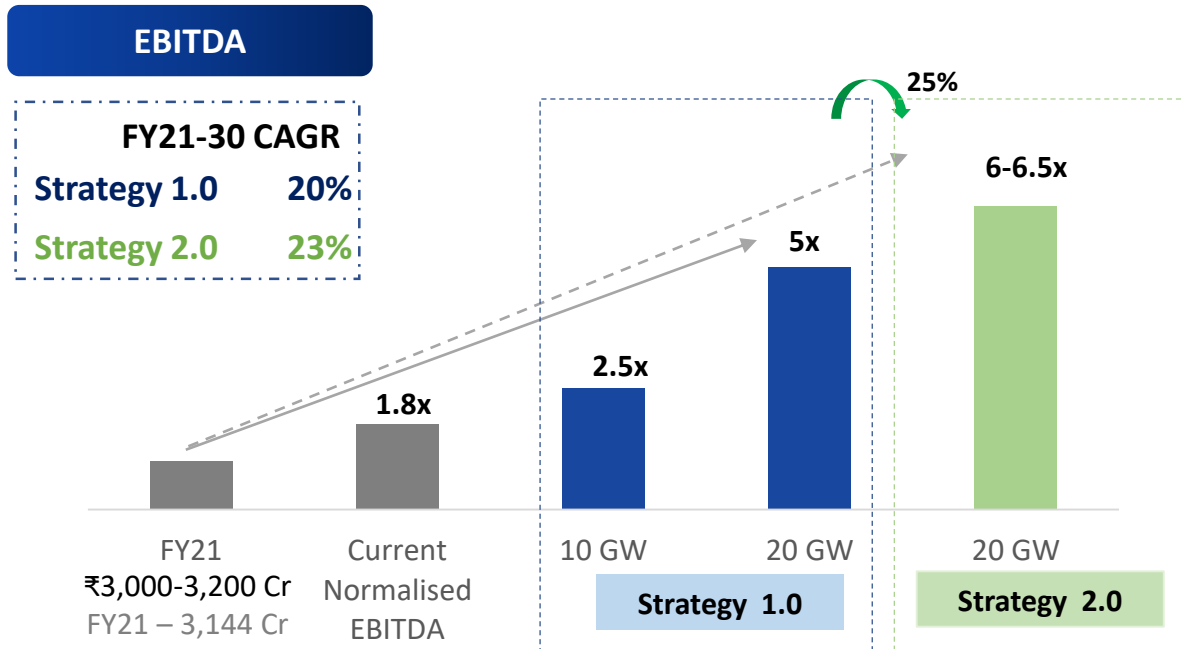
Growth to be driven by internal accruals

Targets FY30	Strategy 1.0 (2021)	Strategy 2.0 (2023)
Generation Capacity	20 GW	20 GW
Energy Storage	-----	40 GWh/ 5GW
Solar Module Manufacturing	-----	1 GW module W-C-M
Green Hydrogen	-----	~3,800 TPA

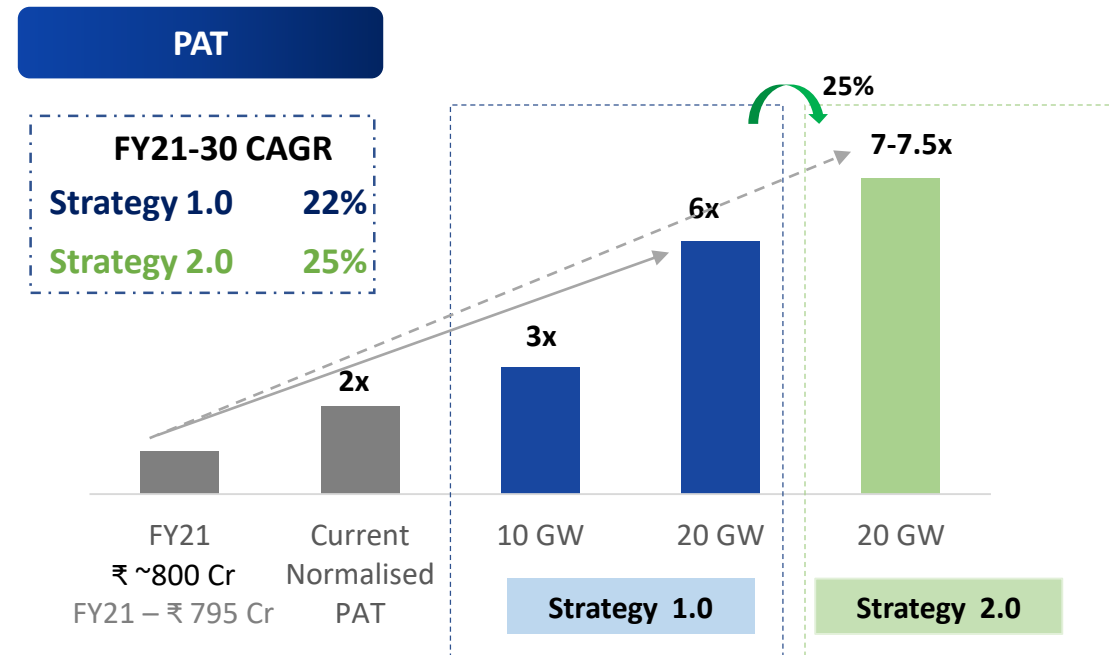
## Net Debt/EBITDA



## EBITDA



## PAT



**Balance Sheet Size to Grow at 22% CAGR from FY 23 to FY30 | ~50% increase in capex vs Strategy 1.0**

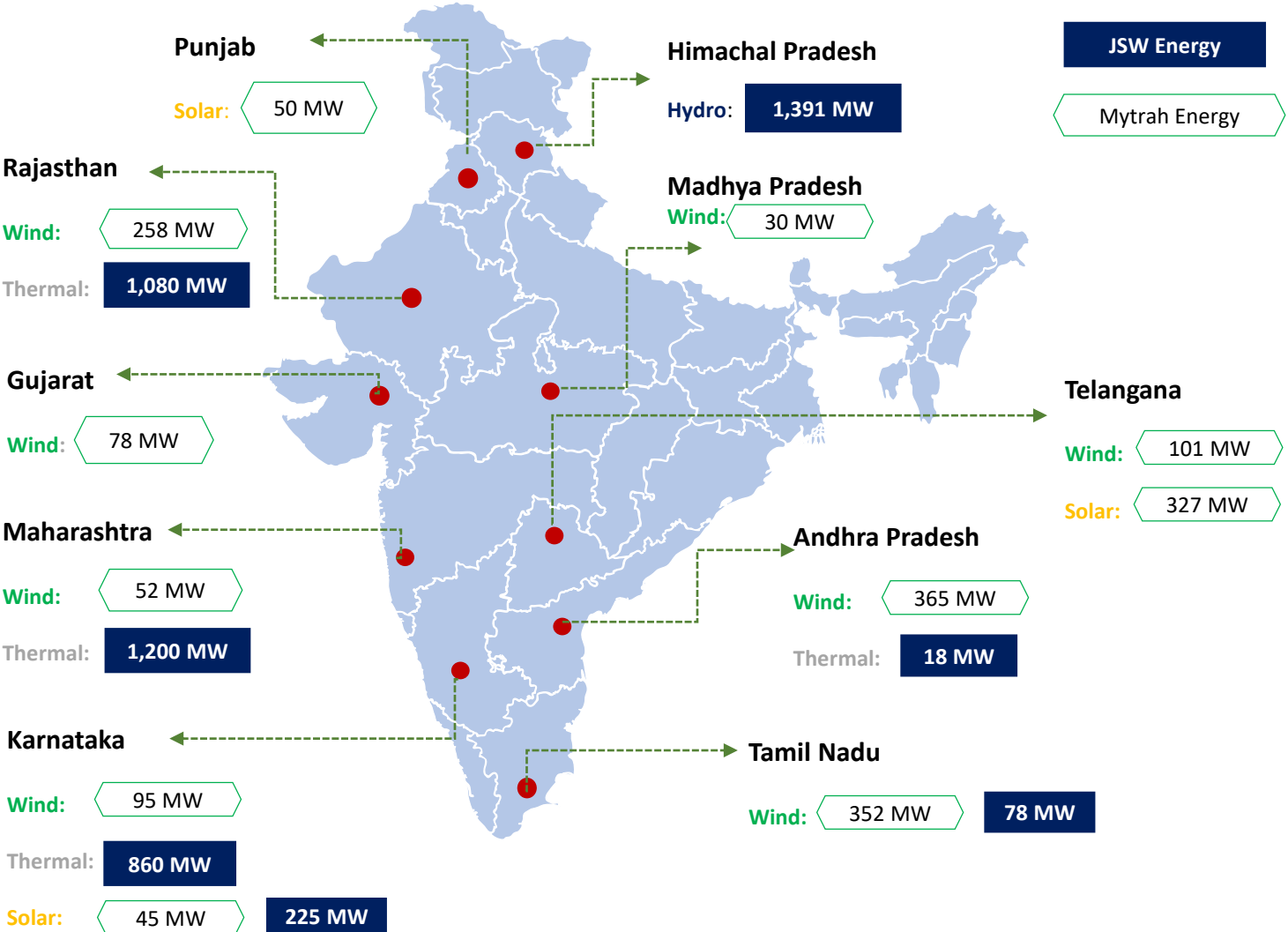


# Operational & Financial Performance



# Developed a Pan India Footprint of Operating Locations

## Installed Capacity by Location (6,615 MW)



• Map of India representation – scaling may not be accurate

# Healthy Operations and Financials

**85%**

Capacity under LT PPA<sup>1</sup>

**~90%**

EBITDA contribution from LT

**~22BUs**

Net Generation

**₹ 2,570Cr**

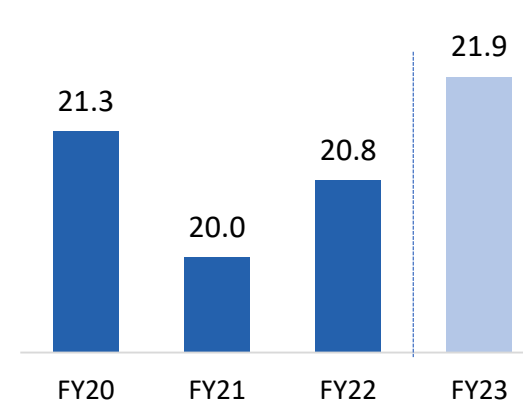
Cash PAT<sup>2</sup>

Figures are for FY23

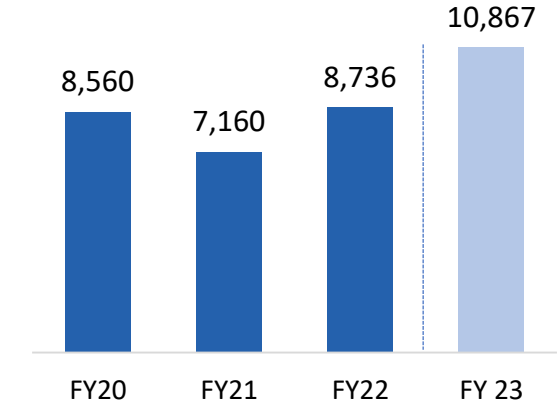
- Steady operations and robust financial: Track record of strong yearly cash profits of ~₹2,570 Crores.
- High LT PPA tie-up rendering high cash flow visibility
  - Almost all LT PPA under two-part tariff (imported/domestic fuel cost/forex pass through)
  - Remaining Avg. Life of PPA: ~18 years
  - Remaining Avg. Life of Assets: ~25 years
- Diversified off-takers
  - All plants placed favorably in Merit Order Despatch
  - Hydro projects under 'must-run' status
  - Consolidated Trade receivables at ₹ 1,799 Cr equaling to 60 receivable days as on March 31, 2023

**Resilient business model with steady cashflow generation despite sectoral headwinds**

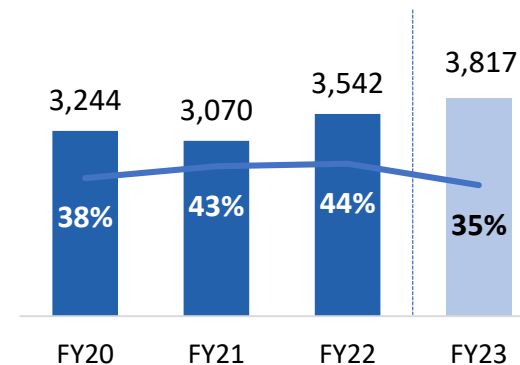
**Net Generation (BUs)**



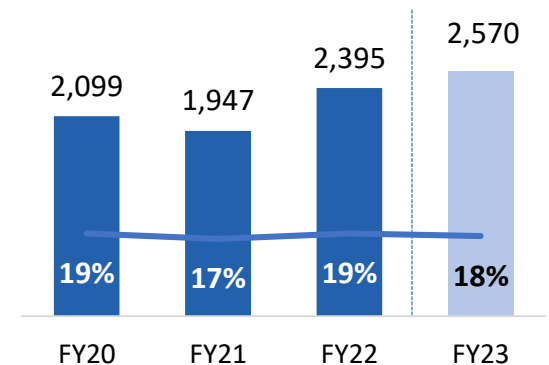
**Total Income<sup>3</sup> (₹ Crore)**



**Adj. EBITDA & EBITDA Margin (₹ Crore)**



**Cash PAT<sup>2</sup> (₹ Crore) and Return on Adj.Net Worth**



# Robust balance sheet to support renewable-led growth (Proforma | Incl. Mytrah)

**4.4x**

Net Debt/EBITDA

**1.2x**

Net Debt/Equity

**8.45%**

Wt. average cost of debt \*

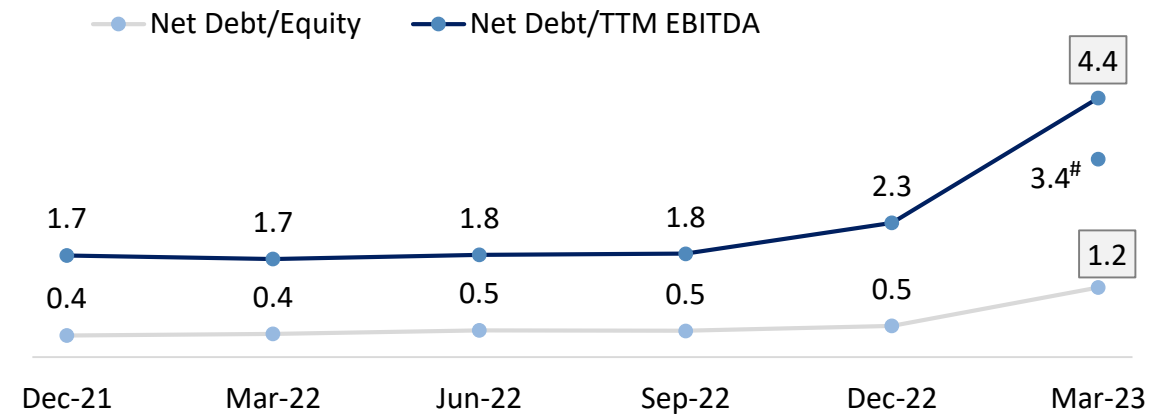
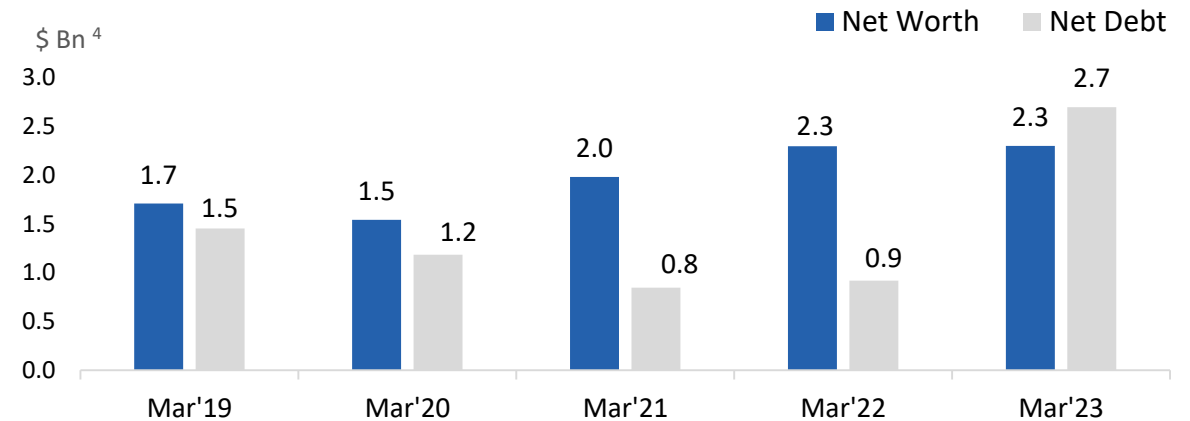
**60**

Receivable Days

Figures as of March 31, 2023

- ✓ Strong Liquidity with healthy cash balances: ₹ 4,627 Crore
- ✓ Financial flexibility enhanced by equity investments:
  - Holding 7Cr (70mn) JSW Steel shares of Value<sup>1</sup>: ₹ 4,452 Cr
- ✓ Healthy Credit Ratings:
  - India Rating & Research: AA (Stable outlook)
  - ICRA Ltd: ICRA AA (Stable)
- ✓ Access to diverse pools of liquidity
- ✓ Operating portfolio generating healthy CF & mid-teen equity IRR<sup>2</sup>
- ✓ Weighted average cost of debt is 8.36% (excluding Mytrah) as of March 31, 2023

## Large balance sheet headroom & strong cashflow available to pursue growth



ND/EBITDA for Operational Projects at 2.6x (Mar-23)<sup>5</sup>

1 Value of JSW Steel Share holdings as on Mar 31, 2023. Net Worth is impacted by change in value of listed equity investments through Other Comprehensive Income,

2. Calculated as FCFE Yield on Adj. NW is ~14%; Adj NW : Net worth adjusted for non-strategic equity investments held

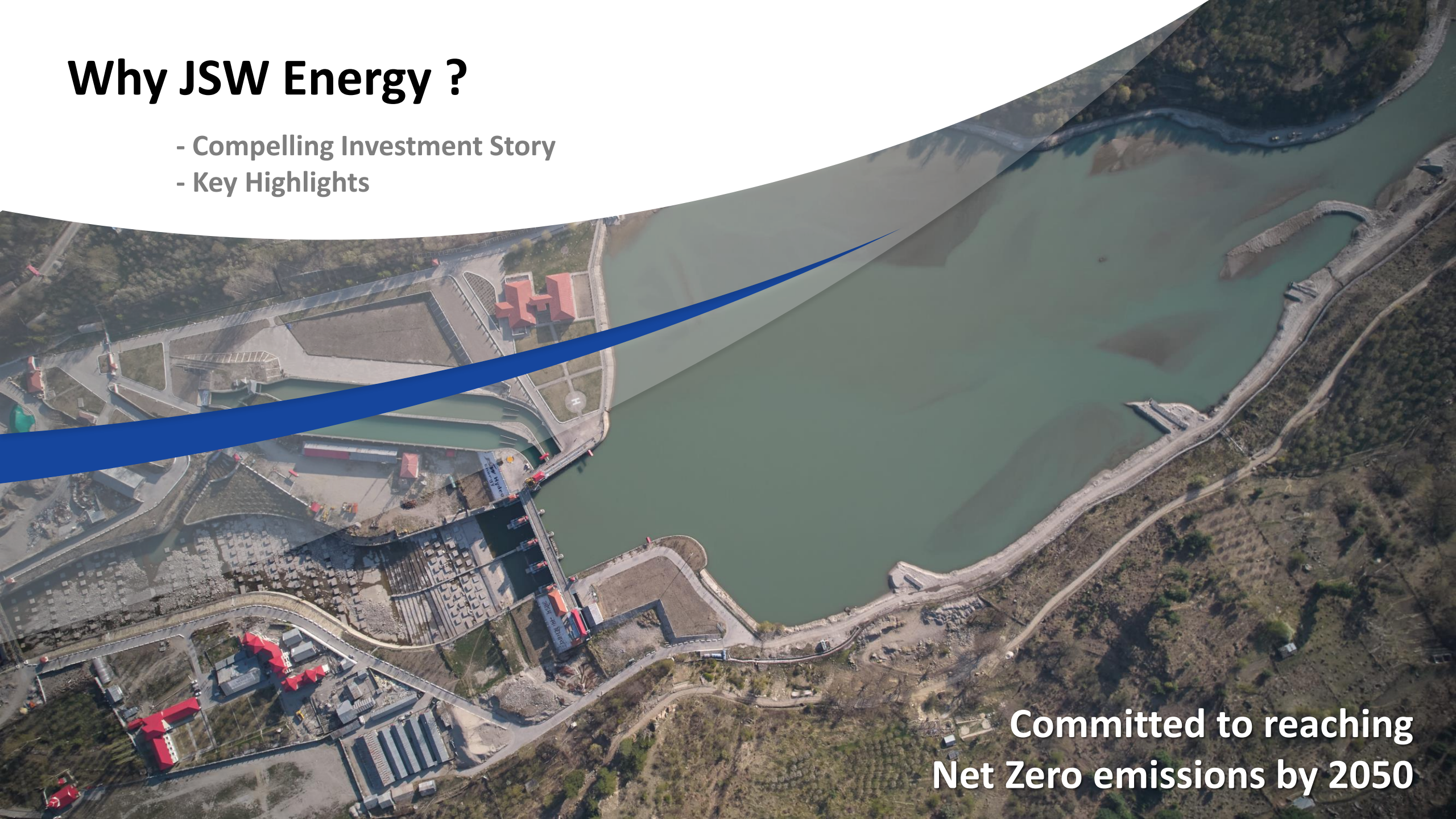
3. 1 USD =82.7 ₹ | 4 Conversion based on USD = INR spot rate as of respective date

5. Based on net debt for operational projects of ₹9,990 crores; total Proforma (Including Mytrah) net debt at the group level stands at ₹22,180 crores on Mar-23.

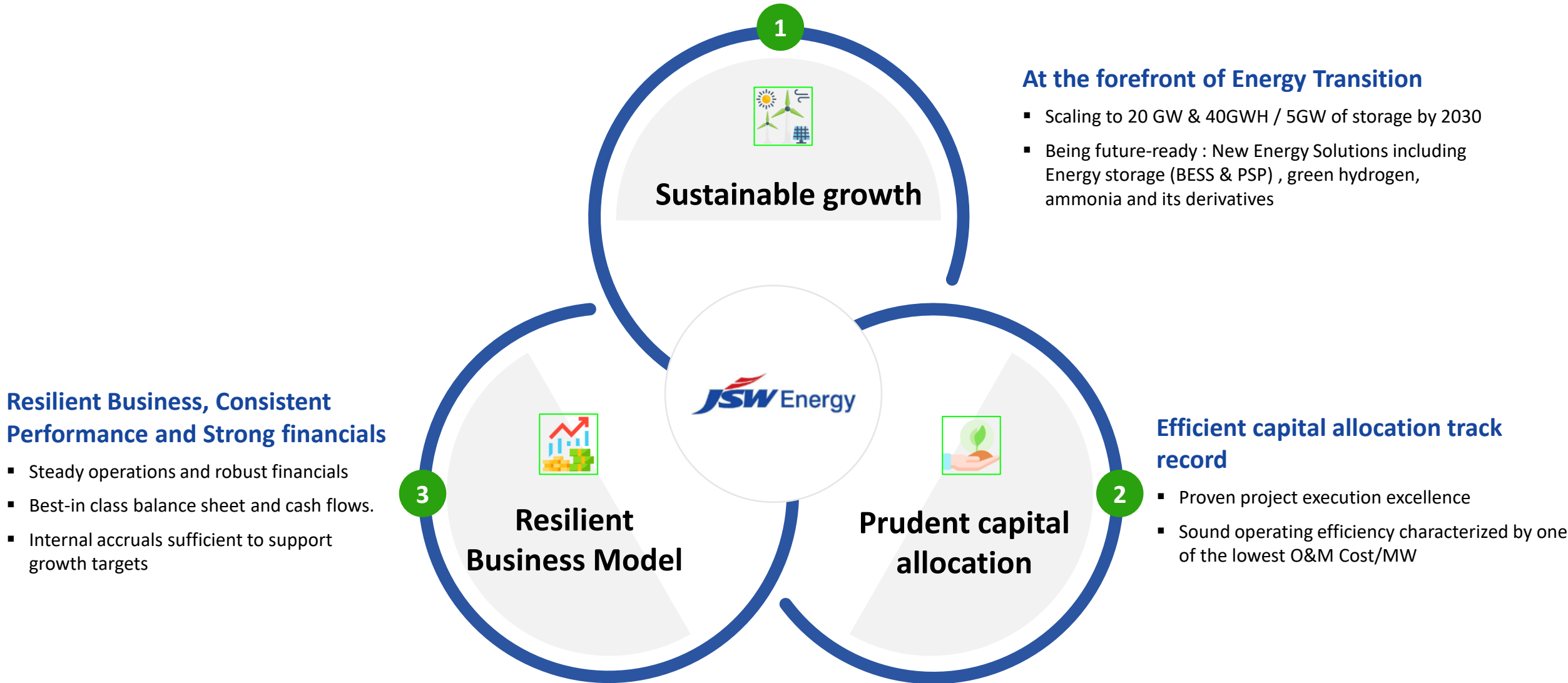
\* Including Mytrah's debt post refinancing and debt sizing package which is in place | # Including Mytrah Debt and excluding debt on under-construction projects

# Why JSW Energy ?

- Compelling Investment Story
- Key Highlights



Committed to reaching  
Net Zero emissions by 2050



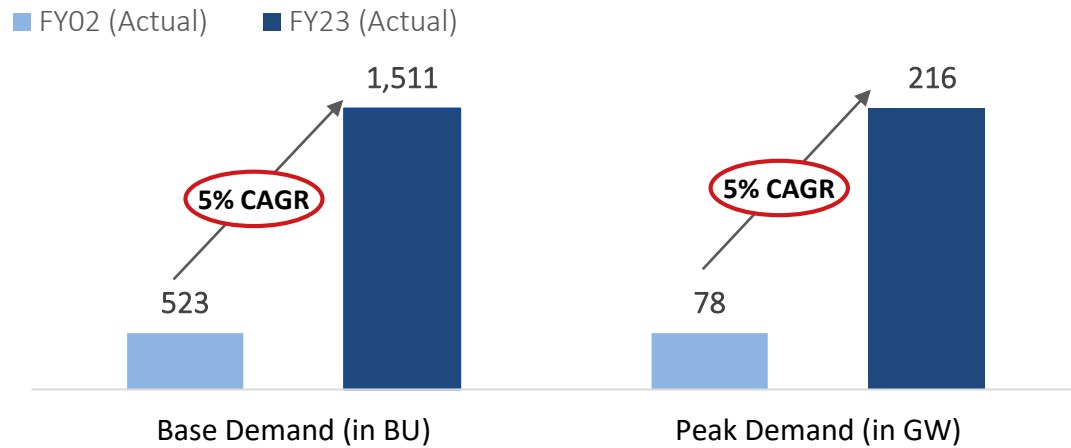


## At the forefront of Energy Transition

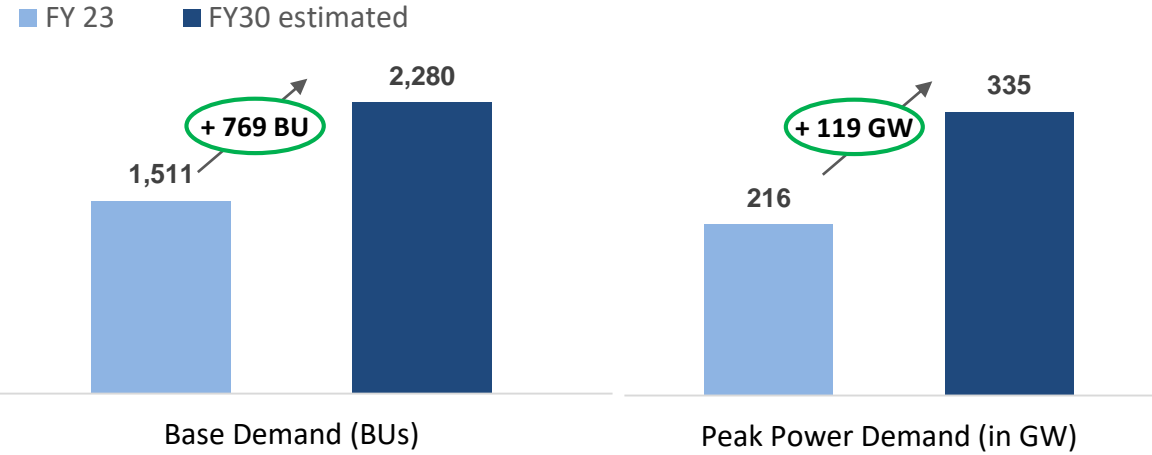
- Scaling to 20 GW & 40GWH / 5GW of storage by 2030
- Being future-ready : New Energy Solutions including Energy storage (BESS & PSP) , green hydrogen, ammonia and its derivatives

# Significant Market Opportunity: Power Demand Growth to be met by RE

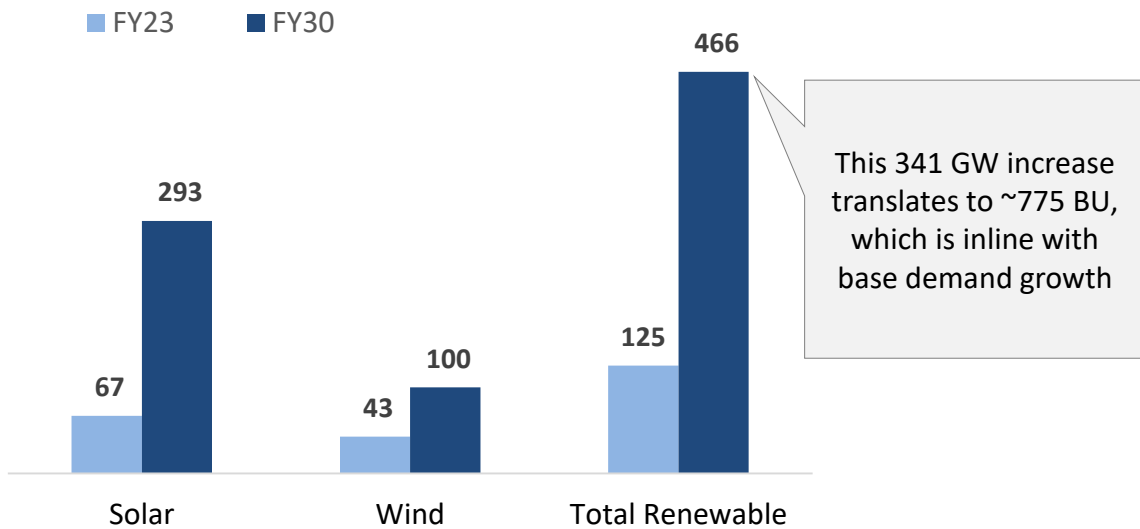
## Historical Power Demand Growth



## Similar growth expected in power demand over next decade



## Demand to be met incrementally with Renewable Energy



## Rapid Urbanization and universal electrification to drive power demand

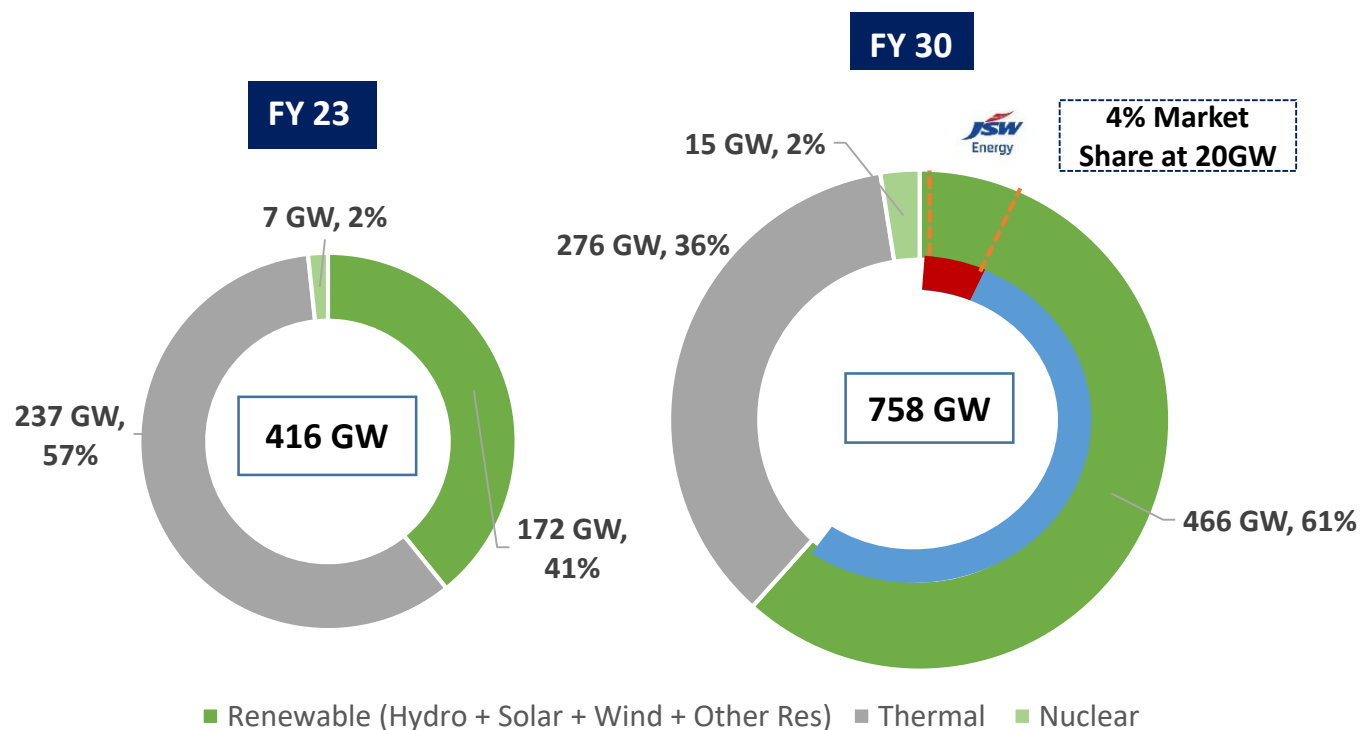
- ✓ India's is world's third largest power producer, however has a low per capita consumption (~1/3<sup>rd</sup> of world average), this provides huge opportunity for growth
- ✓ Sustained economic growth has driven power demand in India, going forward, unlocking of demand from increased rural electrification and rapid urbanization to drive demand for power



# Participating in India's Green Transition

India's share of Renewables is projected to increase from 41% in FY 23 to 61% in FY 30

## Changing Environment and our Approach

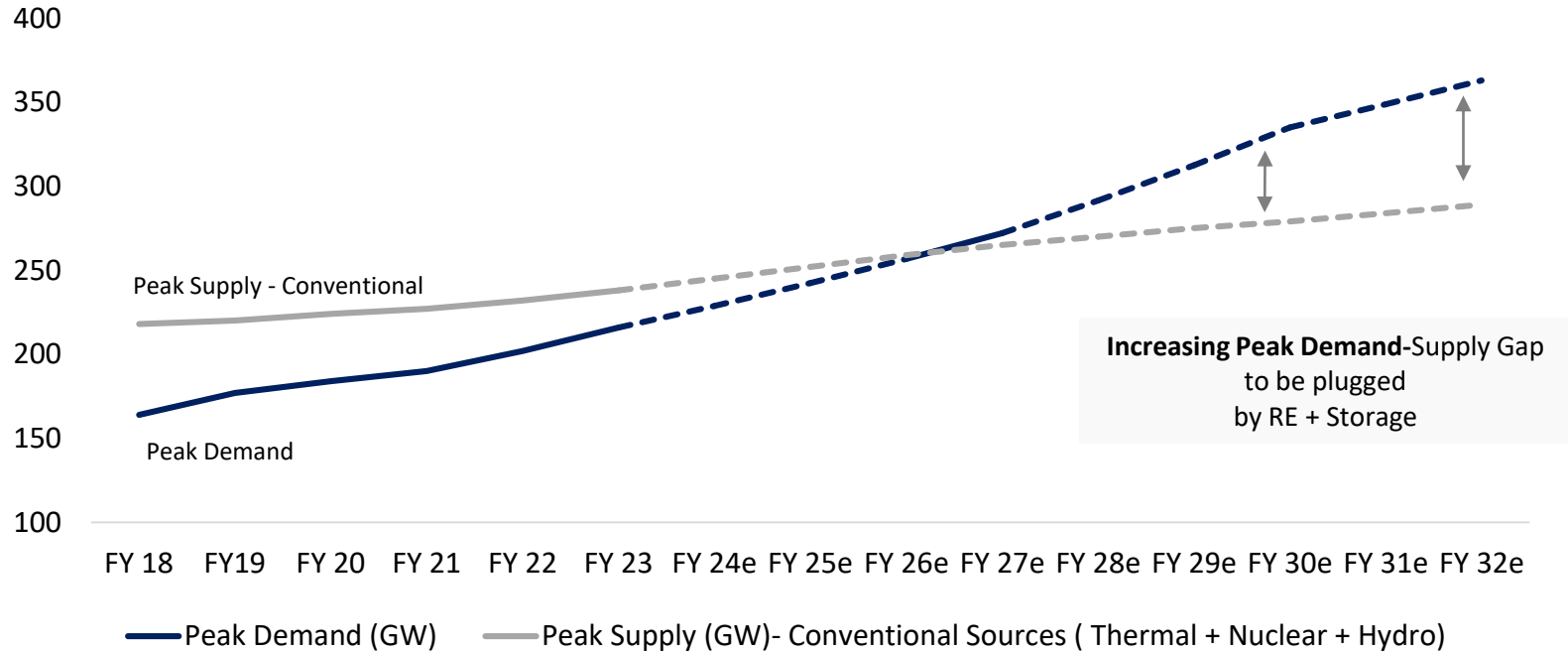


- JSW Energy's strategy is to grow its capacity to 20 GW by FY30 mainly through renewable capacity addition, which is in line with India's renewable energy growth trajectory
- Being part of JSW Group which has its presence across multiple business including steel, cement, infra and paints gives us the opportunity to further grow through group captive

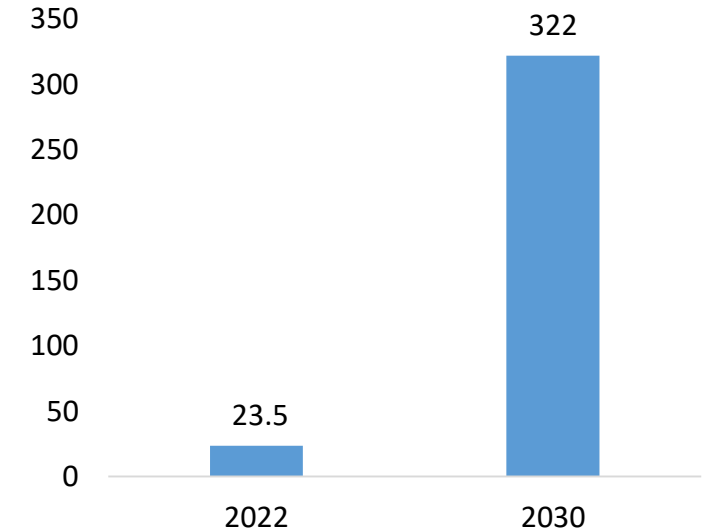
Domain	Environment	Our Approach
<b>Capital</b>	<ul style="list-style-type: none"> <li>• High cost of borrowing due to interest rate hike</li> </ul>	<ul style="list-style-type: none"> <li>• Bidding assumptions take into account interest cycles through life of project</li> </ul>
<b>Supply Chain</b>	<ul style="list-style-type: none"> <li>• BCD on imported Solar Panels/Cells</li> <li>• Uncertainty of supply of Solar panels and WTGs</li> </ul>	<ul style="list-style-type: none"> <li>• De-risking of supply chain through backward integration</li> </ul>
<b>Policy and Fiscal Support</b>	<ul style="list-style-type: none"> <li>• Draft Hydro PSP and Green Hydrogen policy</li> <li>• Budgetary support for Green Transition</li> </ul>	<ul style="list-style-type: none"> <li>• Early Mover in hydro PSP and BESS</li> </ul>
<b>Business Model</b>	<ul style="list-style-type: none"> <li>• Reduced bidding intensity combined with lower tariff discovery</li> </ul>	<ul style="list-style-type: none"> <li>• Bidding discipline with a targeted IRR at p90</li> </ul>

# Energy Storage critical in India's Energy Transition

## Peak Demand vs Supply from Conventional Sources (GW)



## Storage Capacity GWh\*



### Renewable Energy + Storage Solutions required to plug increasing Peak Demand-Supply Gap going forward

- Peak Power Demand is expected to grow at a CAGR of ~6% between FY23-30
- Old & Inefficient thermal capacities to keep on retiring YoY
- Hence, Increasing gap between Peak Demand and Peak Supply from conventional power sources (Thermal+Nuclear+Hydro) will be needed to be plugged by supply from renewable + storage capacities

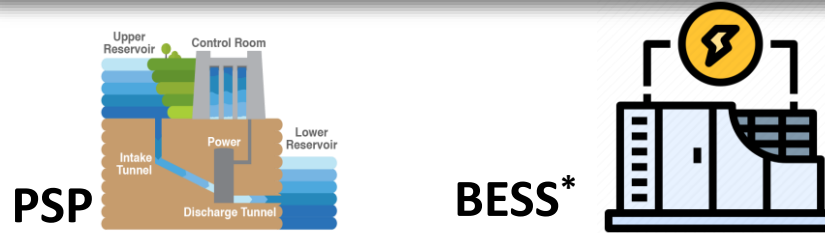
### Optimal generation mix report 2023 projects a large requirement for Energy Storage in 2030

- Projections of the order of 322 GWh of energy storage requirement by 2030

# Battery Storage (BESS) and Hydro Pump Storage (HPSP)

Apr-2023 Report

Optimal Generation Capacity Mix for 2029-30

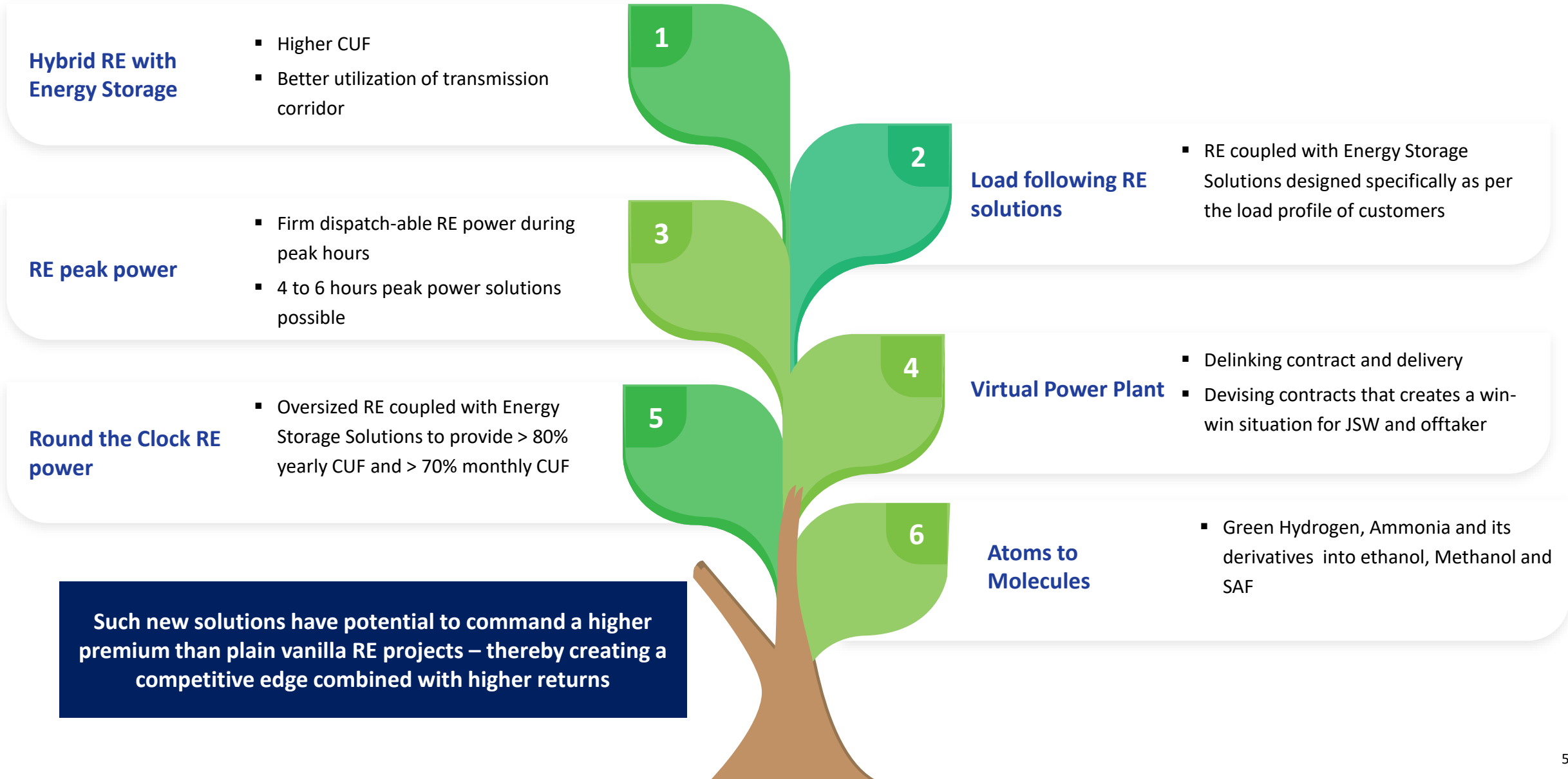


Base Case Capacity	<b>18.99 GW</b> X 6 hours = <b>114 GWh</b>	<b>41.65 GW</b> X 5 hours = <b>208 GWh</b>
Likely Installed Capacity (5% Demand Growth)	<b>18.99 GW</b>	<b>49.38 GW</b> X 5 hours = <b>247 GWh</b>
Conservative Capacity # (Lower Demand)	<b>17.26 GW</b>	<b>45.70 GW</b> X 5 hours = <b>229 GWh</b>
Total Generation ( Inc. HPSP) Capacity Projection	<b>777.1 GW</b> Considering base capacity as capacity mix for 2021-22	

JSW Energy

- ✓ 40GWh/ 5GW of energy storage capacity by FY 2030
- ✓ 3.4GWH of storage locked in ( 1GWh of BESS and 2.4 GWh of HPSP)
- ✓ Large Resources secured for ~72GWhr PSP/ 10.8 GW
- ✓ Growth through internal accrual
- ✓ Existing portfolio generating healthy CF & mid-teen equity IRR

# Energy Storage – Enabler for New RE based products and services



# Electrons to Molecules: Green Hydrogen Potential

## Advantage India

### Significant Hydrogen demand

Current demand ~6 MMT expected to grow to ~24 MMT by 2050

### Huge RE potential

Existing RE capacity of ~165 GW (incl. Hydro)  
Target – 50% of energy requirement from RE by 2030

### Low Tariffs

RE tariffs in India (INR ~ 2-2.5)

### India's Import Bill

India is 3<sup>rd</sup> largest consumer of oil & gas, imports ~85% of oil and ~50% of Gas

### Clean energy Commitment

GH adoption contributes to emission reduction & meet energy demand

### Infrastructure build

Large part of India's infrastructure needs to be built out, allows better integration

JSW Energy



Contracted India's largest Commercial Scale Plant for production of Green H<sub>2</sub> (Capacity-3,800 TPA). This is towards production of Green Steel

**Grey Hydrogen:** Currently, more than 95% of hydrogen is produced from fossil fuels via carbon intensive processes.

**Blue Hydrogen:** Grey hydrogen whose CO<sub>2</sub> emitted during production is sequestered via carbon capture and storage (CCS)

**Green Hydrogen:** Low or zero-emission hydrogen produced using clean energy sources

### Main production route

- Steam Methane Reforming (SMR)
- Coal Gasification

### Characteristics

Intense CO<sub>2</sub> Low Cost

### Main production route

- SMR + CCS
- Coal Gasification + CCS

### Characteristics

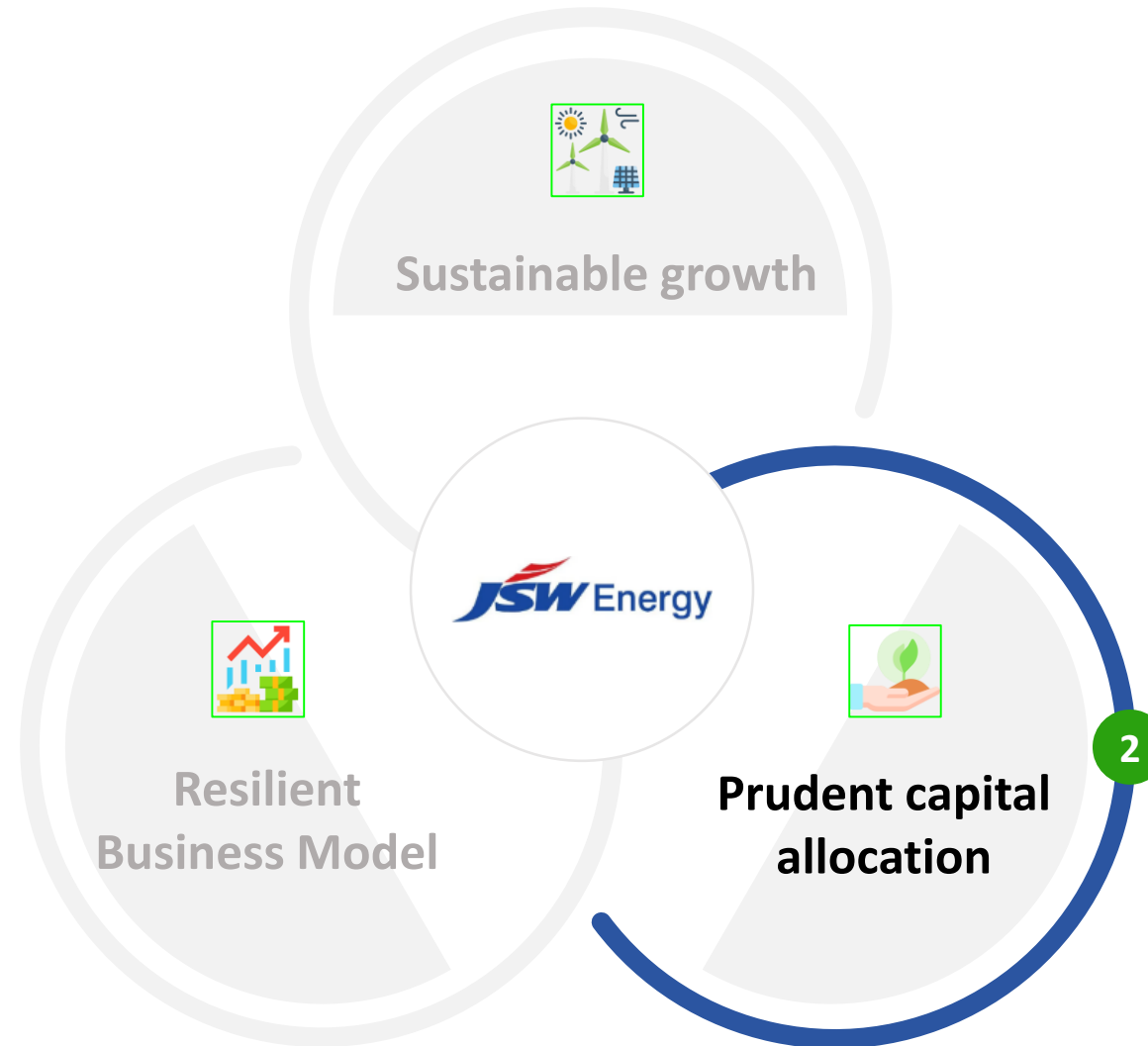
Low CO<sub>2</sub> High Cost

### Main production route

- Electrolysis using renewables

### Characteristics

Zero CO<sub>2</sub> High Cost



## Efficient capital allocation track record

- Proven project execution excellence
- Sound operating efficiency characterized by one of the lowest O&M Cost/MW

# Proven project execution and operational excellence...

Prudent and consistent capital allocation strategy for growth over a 25 year history

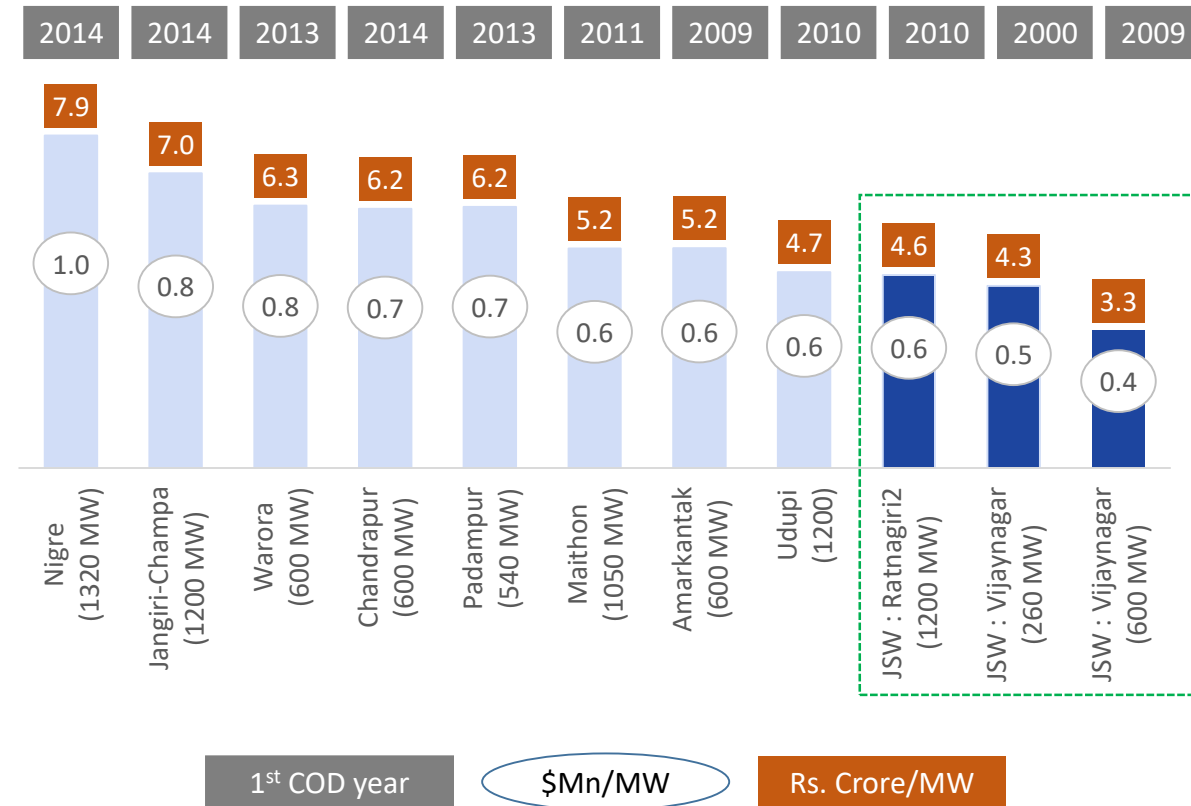
Business model resilient despite several sectoral headwinds over the last decade

Sound operating efficiency characterized by one of the lowest O&M Cost/MW

O&M Expenses (Rs Mn/MW)

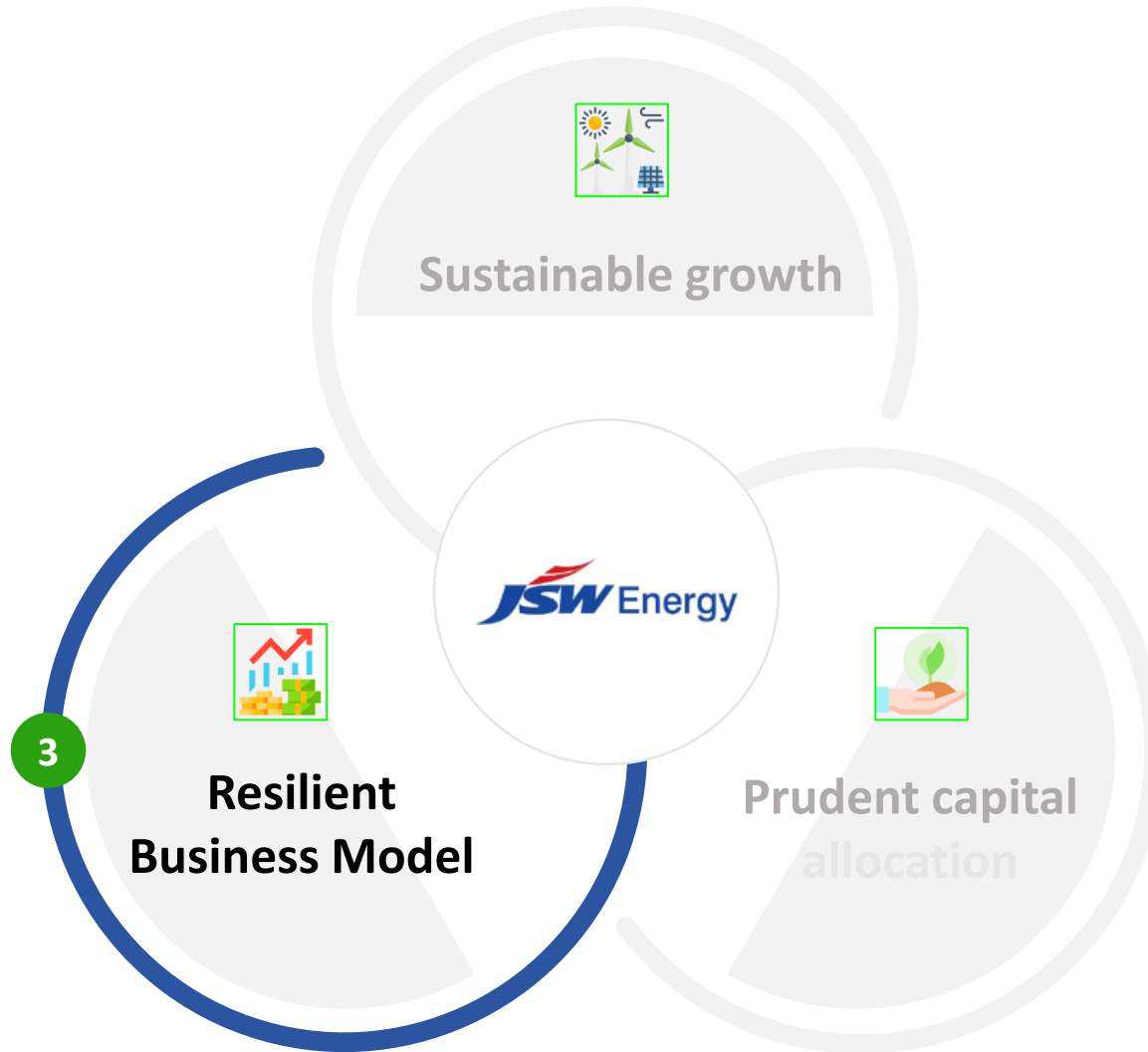


## One of the lowest project execution cost in the industry



## Resilient Business, Consistent Performance and Strong financials

- Steady operations and robust financials
- Best-in class balance sheet and cash flows.
- Internal accruals sufficient to support growth targets

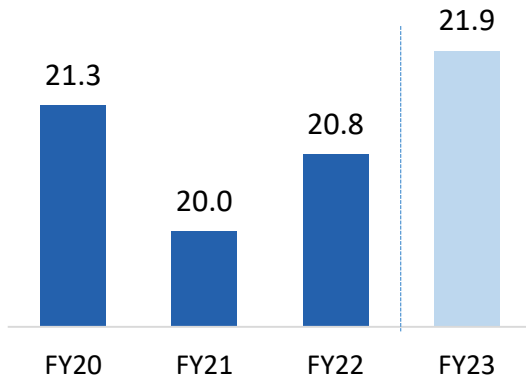




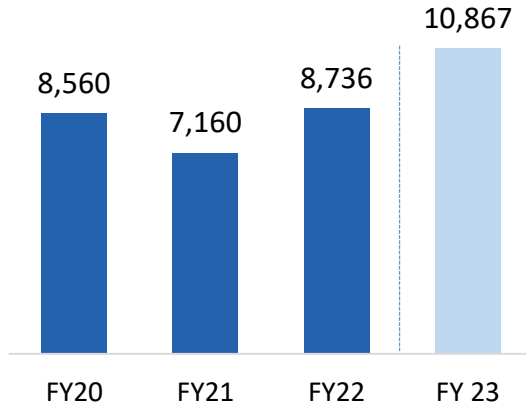
# Steady Operations and Robust Financials

## Consistent Asset Performance

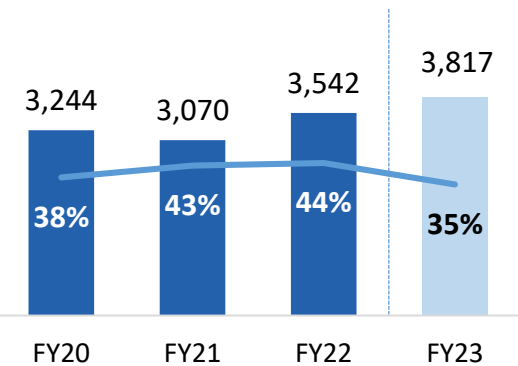
### Net Generation (BUs)



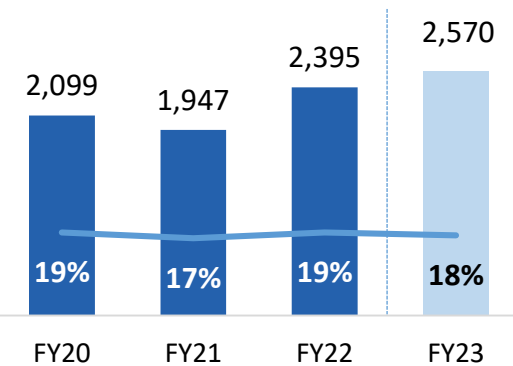
### Total Income<sup>1</sup> (₹ Crore)



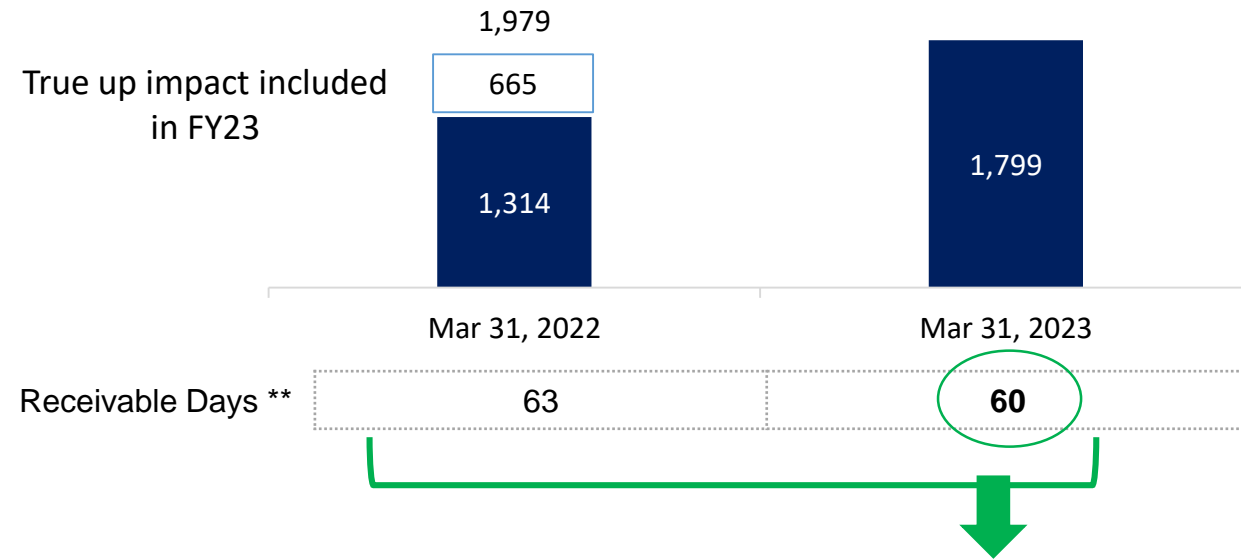
### Adj. EBITDA & EBITDA Margin (₹ Crore)



### Cash PAT (₹ Crore) and Return on Adj.Net Worth



## Consolidated Trade Receivables\* (₹ Cr)



- ✓ All plants placed favourably in States' Merit Order Dispatch
  - Further, Hydro plants under 'Must-run status' with no scheduling risk
- ✓ No history of any bad debts from routine long term trade receivables
- ✓ Payment security mechanism in force for power tied under long term PPA with discoms
- ✓ Recovery of late payment surcharge in case of delayed payments from discoms

1. Not comparable YoY from FY21 due to Change to Job Work Model Partially

\*Includes Unbilled Revenue. \*\* DSO in Mar-22 calculated on revenue adjusted for true-up impact at Karcham-Wangtoo, Unadjusted DSO is 49 days; Mar-23 excludes receivables related to Mytrah RE portfolio

# Robust Balance Sheet & Cashflows to aid growth (Proforma | Incl. Mytrah)

## Balance sheet headroom to pursue growth opportunities

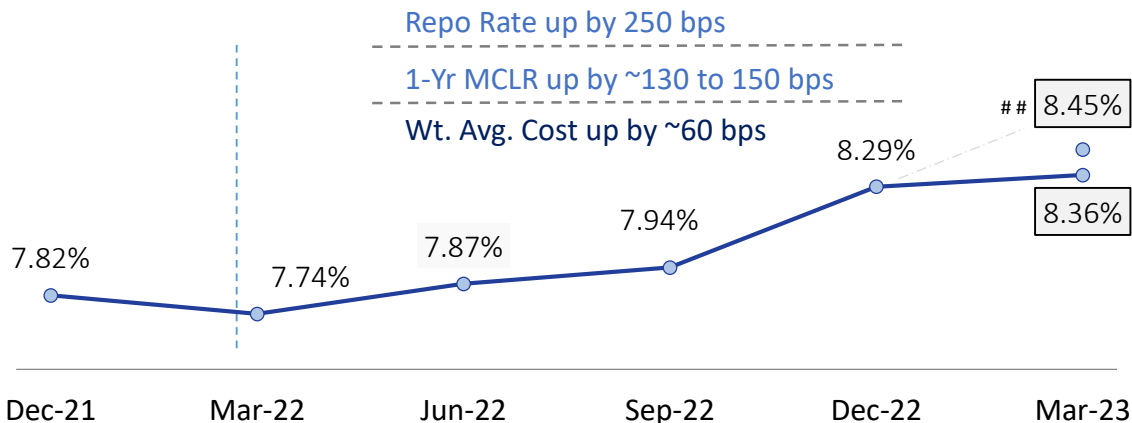
- Strong credit metrics :

Figures in ₹ Cr	As on Mar 31, 2023
Networth	18,629
Net Debt	22,180
Net Debt/EBITDA	4.4
Net Debt/Equity	1.2
Wtd. Average Cost of Debt	8.36% <sup>2</sup>

- Healthy Credit Ratings and access to diverse pools of liquidity

- India Rating & Research: IND AA (Outlook Stable)
- ICRA Ltd: ICRA AA/ Stable

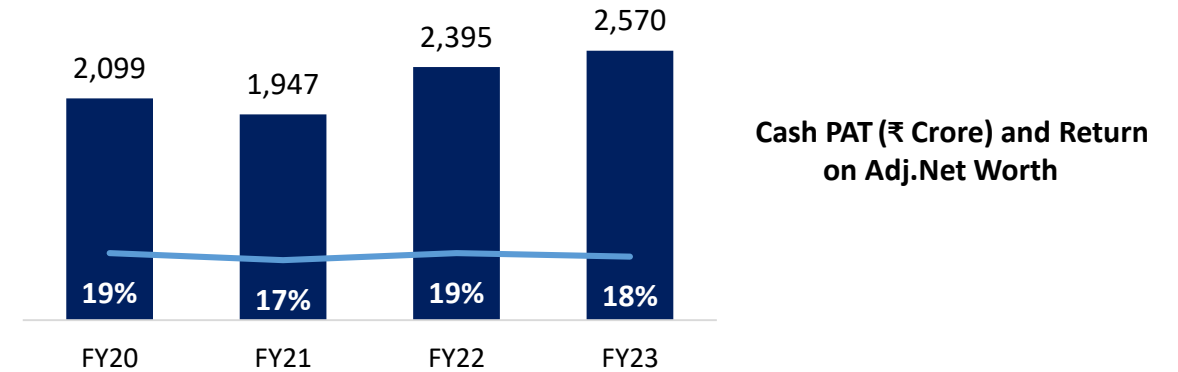
## Wt. Average Cost of Debt



## Healthy internal accruals & financial flexibility to support long term growth








### Operational Portfolio:

- Generating healthy cash flow & mid-teen equity returns
- Steady operations and robust financial:** Track record of strong yearly cash profits



- 85% of portfolio tied-up under Long Term PPA; Remaining Avg. Life of Assets/PPA: ~25 years / ~18 years
- Strong Liquidity with healthy cash balances<sup>1</sup>:** ₹4,627 Cr
- Financial flexibility** enhanced by equity investments:  
JSW Steel shares: 7 Cr shares held (Value as on Mar 31, 2023: ₹ ~4,819 Cr)

# JSW Energy : Key Highlights

 <b>Proven Execution Excellence</b>	<ul style="list-style-type: none"><li>✓ Superior project execution skills: Projects set-up in lowest cost &amp; time</li><li>✓ Differentiated business strategy for growth to 20 GW, driven by Renewable</li><li>✓ Foraying in New Energy Platforms: Green Hydrogen, Energy Storage, Energy Products &amp; Services</li></ul>
 <b>Focus on Sustainability</b>	<ul style="list-style-type: none"><li>✓ Strong Focus on ESG – Leadership band with ‘A-’ score in the 2021 CDP Climate Change assessment</li><li>✓ Amongst the Highest rated power generation company in India by various independent ESG rating agencies</li><li>✓ To be Carbon Neutral by 2050; Committed to set science based emission reduction targets (SBTi)</li></ul>
 <b>Efficient O&amp;M</b>	<ul style="list-style-type: none"><li>✓ Sound operating efficiency characterized by one of the lowest O&amp;M costs in the sector</li><li>✓ Global best practices &amp; recognition in Safety: Barmer and Ratnagiri Plants awarded ‘SWORD OF HONOUR’ by British Safety Council</li></ul>
 <b>Steady EBITDA and Cash accruals</b>	<ul style="list-style-type: none"><li>✓ 85% of total portfolio tied up with LT PPA providing ~90% EBITDA and Cashflow generation</li><li>✓ Two-part tariff structure mitigating fuel and forex risk</li></ul>
 <b>Healthy Receivables</b>	<ul style="list-style-type: none"><li>✓ Receivables days at low levels in DSO terms.</li><li>✓ Favorable placement in Merit Order Despatch &amp; diversified off-takers mitigate Receivable risk</li></ul>
 <b>Strong Balance Sheet</b>	<ul style="list-style-type: none"><li>✓ Amongst the Strongest Balance Sheet in the sector: 4.4x Proforma Net Debt/EBITDA; 0.54x Proforma Net Debt/Equity</li><li>✓ Healthy debt metrics to be maintained while pursuing value accretive growth</li><li>✓ A healthy cash balance of ₹4,627 Cr and financial flexibility with JSW Steel equity shareholding</li></ul>
 <b>Low Cost of Funding</b>	<ul style="list-style-type: none"><li>✓ Proactive Debt Management: Weighted average cost of debt at 8.36%</li><li>✓ Raised a US\$ 707 million green bond to refinance debt for hydro entity in May’21</li></ul>

# JSW Neo Energy Ltd



# JSW NEO Energy – At a Glance

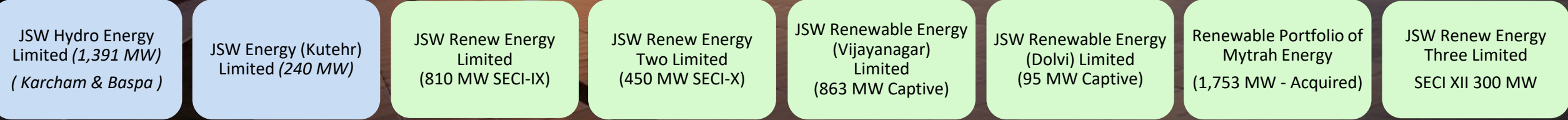
**JSW Energy Limited**  
9,770 MW

- Ratnagiri – 1,200 MW
- Vijayanagar – 860 MW
- Nandyal – 18 MW
- Solar – 10MW
- JSWEBL – 1,080
- Ind-Barath- 700
- Total – 3,868 MW**

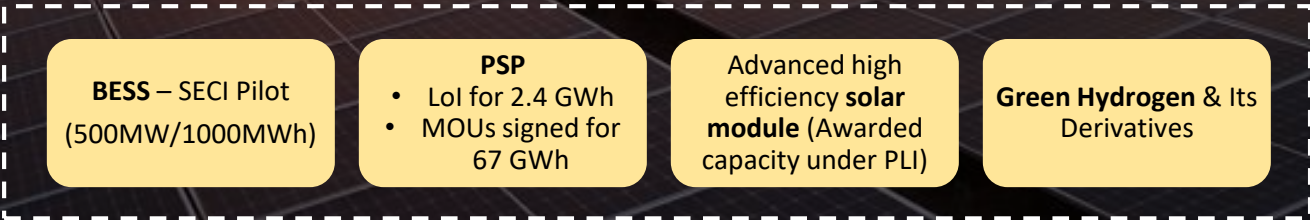
Hydro Entities
Solar/Wind Entities
Products & Services

**JSW Neo Energy \***  
5,902 MW

### Energy Generation Portfolio



### Products & Services



\* Corporate structure post Acquisition and restructuring. All subsidiaries shown are wholly owned subsidiaries

# JSW NEO Energy – At a Glance

## JSW NEO Energy

**10** GW

=

**3.9** GW

+

**5.9** GW

+

**3.4** GWh

Diversified Asset  
Portfolio of 9.7 GW  
(61% Renewable)

**Thermal Capacity**  
Installed – 3,158 MW  
Under Construction – 700 MW

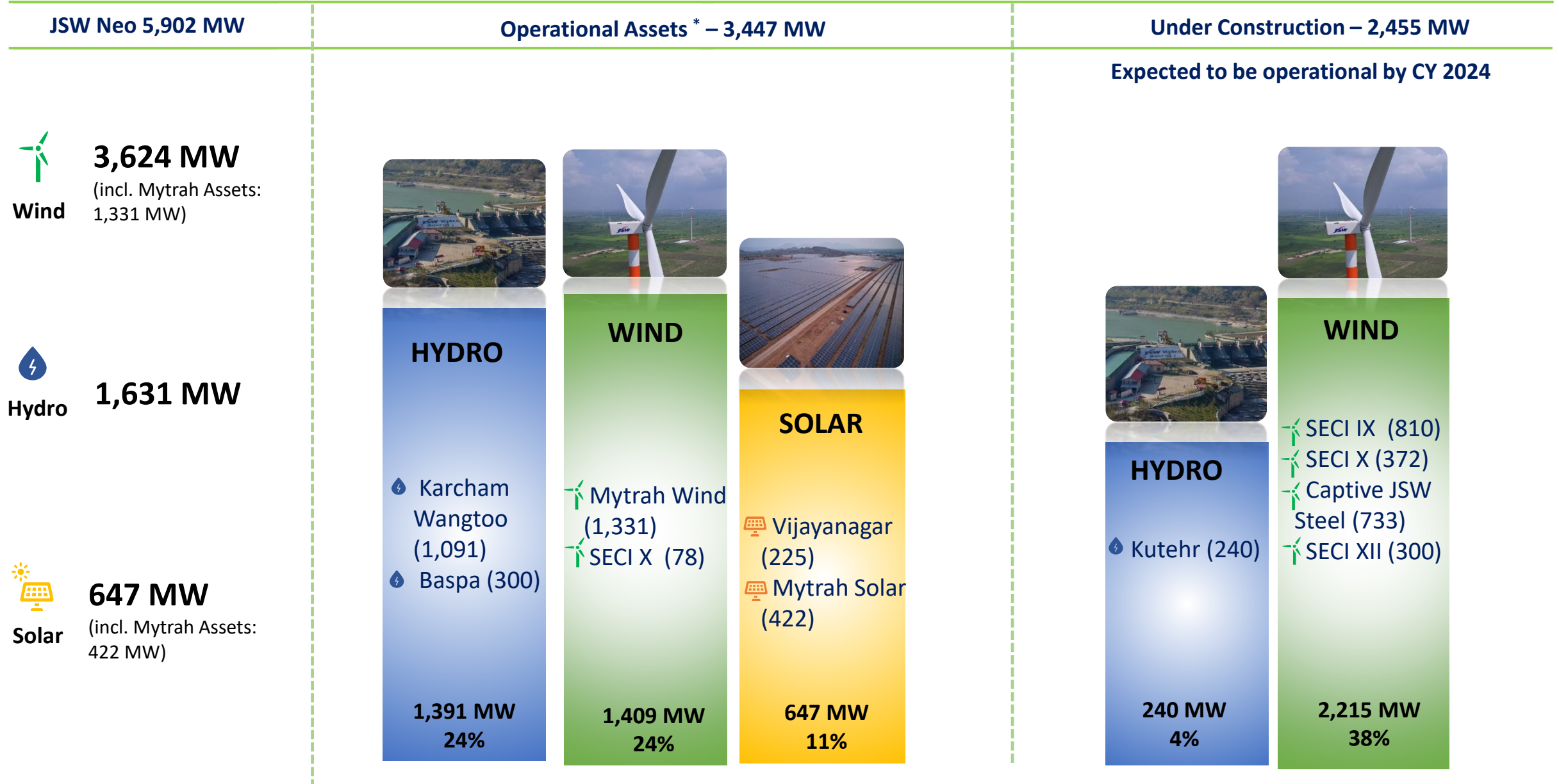
**Renewable**  
Installed – 3,447 MW  
Under Construction – 2,455 MW

**Energy Storage**  
BESS – SECI 500MW/1000MWh  
Hydro Pump Storage (HPSP) –  
PCKL 300 MW/ 2400 MWh

**Backward Integration**  
1 GW of solar wafer, cell and module  
(W-C-M) capacity under PLI scheme.

**Energy to Molecules Integration**  
Green Hydrogen (GH)/Ammonia

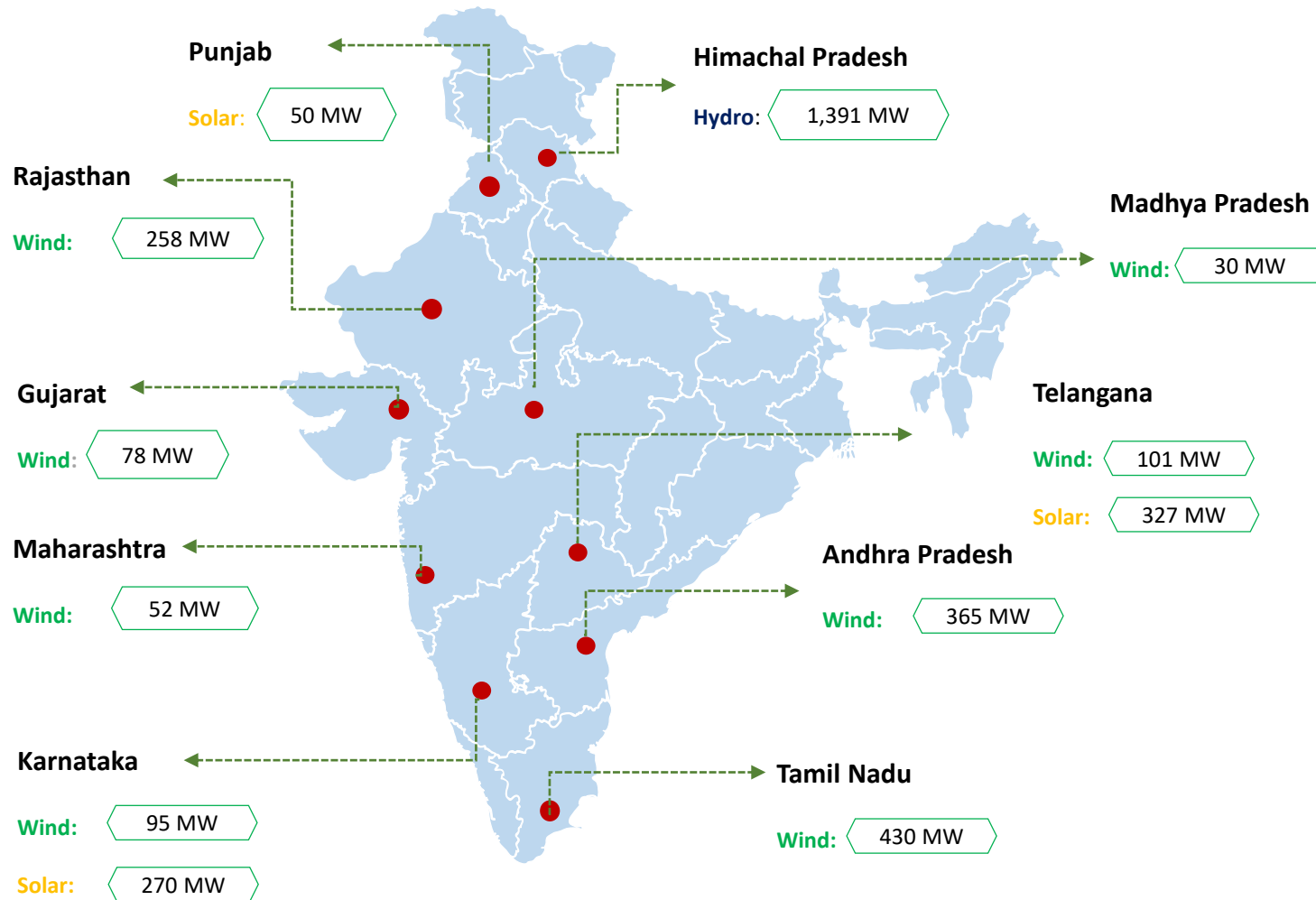
# 4.3x Capacity Growth in Renewables



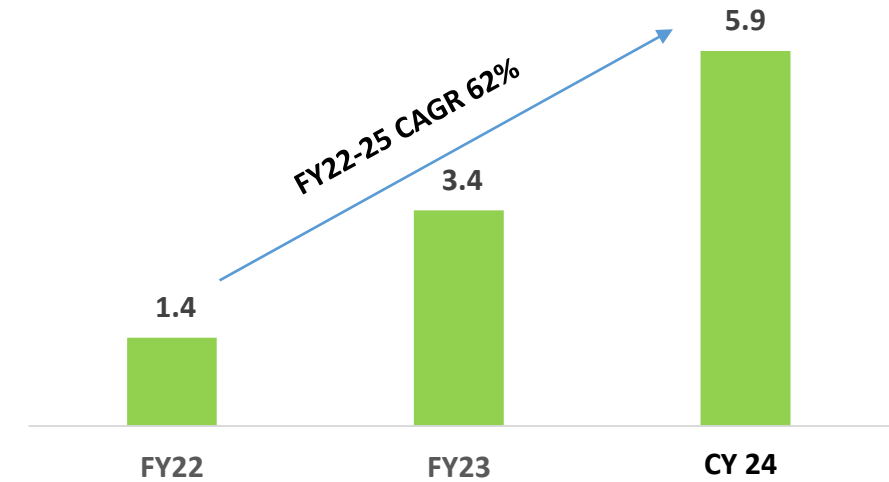
\* Includes 51 MW of SECI X Wind Plant for which CoD was received post FY23

# JSW Neo : 3.4 GW Operating Capacity

## Installed Capacity by Location



## JSW Neo Energy Capacity (GW)

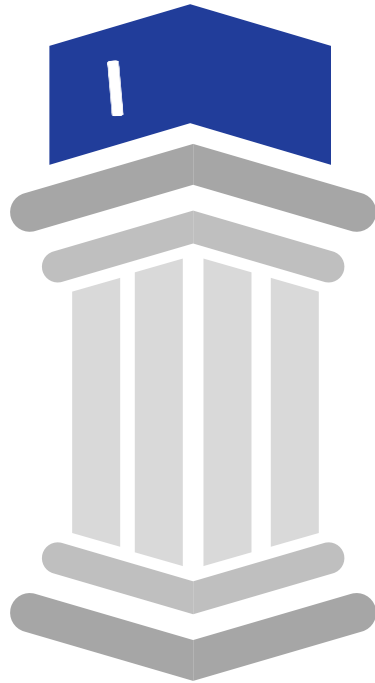


- 6 GW capacity locked in
- Expected to generate mid-teen equity IRR
- No equity dilution to reach targeted capacity growth

Total installed capacity is 3,447 MW of which 97% is tied up under Long Term PPA



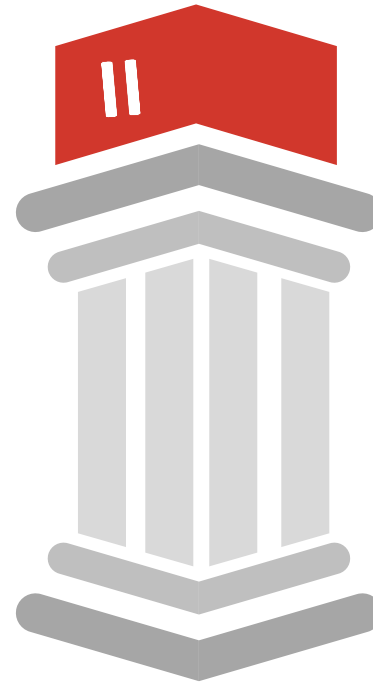
## Value Accretive Business Model



### Prudent selection of growth opportunities

- Bidding based on P90 generation assumption
- Conservative Interest rate assumptions
- Targeted selection- Targeting a niche segment of market offering healthy returns – Mid teen IRRs

## Implementation De-risking



### Life cycle approach

- Land acquisition, De- scoped project construction, power evacuation and O&M
- Power evacuation
- Proactive approach to get the PPA/PSA executed and tariff adoption

## Execution Efficiency



### Group's project execution excellence

- Fast execution while ensuring all safety guidelines

## Protecting Returns



### Value Accretive Business Model

- Bidding based on P90 generation assumption
- Conservative Interest rate assumptions
- Targeted selection- Targeting a niche segment of market offering healthy returns – Mid teen IRRs



### Implementation De-risking

- Land acquisition, De- scoped project construction, power evacuation and in-house O&M
- Proactive approach to get the PPA/PSA executed and tariff adoption



### Execution Efficiency

- Group's project execution excellence: Fast execution while ensuring all safety guidelines

## Enhancing IRRs



### De-scoped Project Execution

- No Turn key EPC contracts: instead creating value with split package approach
- Modular commissioning; Early onset of revenues



### Attractive Financing Solutions

- Debt loading coinciding with revenue generation
- Reducing Interest cost via refinancing



### Operational excellence

- Cost reductions due to Self O&M
- Technology Improvement

## Further Growth Opportunities



### Green Energy Needs of JSW Group and C&I customers

- JSW Group has aggressive growth plans in Steel, Cement and Paints businesses providing opportunities for group captive projects



### Power to X (PtX): Green Chemicals

- Green Hydrogen and Ammonia derivatives
- Green Methanol and derivatives



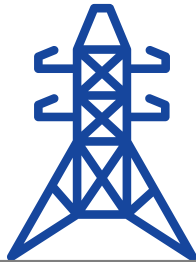
### Energy Storage: Hydro PSP and BESS



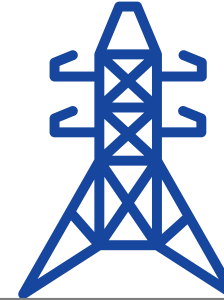
### Value Accretive M&A opportunities

# Growth Framework leading to industry-leading returns

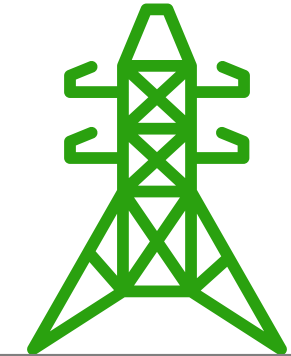
Single digit to lower teen IRR%



Mid-teen IRR %



High-teen Returns Realized



## Equity IRRs

Current market returns due to highly competitive tariffs<sup>1</sup>

## Pre-Bid Preparation

- Bidding with conservative assumptions
- Targeting a niche market segment offering healthy returns
- Pre-bid resources identification to reduce uncertainty on land & connectivity

## Project Execution

- No Turn key EPC contracts: instead creating value with split package approach
- Modular commissioning; Early onset of revenues
- Debt loading coinciding with revenue generation

## JSW Energy Target Returns

Targeting mid-teen post-tax equity IRRs

## Potential Upside Levers Post COD

- Cost reductions due to Self O&M
- Technology Improvement
- Reducing Interest cost via refinancing

## Realized Returns

Enhancement In Returns Realized

# Risk Mitigation



# Adequately addressing key risks and concerns (1/2)

Key Risks/Concerns	Favourable Policy Support and Market Interventions	Mitigation Strategy by JSW Energy
<b>Demand risk (Clearing of PPA Backlogs)</b>	<ul style="list-style-type: none"> <li>▪ Well established central agencies (SECI, NTPC) for managing PPAs</li> <li>▪ Discoms/offtakers entering into new renewable long-term PPAs at commercially attractive tariff given pick-up in economic activity resulting in strong spot electricity prices</li> <li>▪ Renewable Power Obligation for RE and Hydro Projects, energy storage obligations also introduced thereby promoting energy storage projects</li> </ul>	<ul style="list-style-type: none"> <li>▪ Existing portfolio: 85 % PPA signed which forms about 90% of EBITDA</li> <li>▪ U/C portfolio: PPA signed for all renewable projects</li> <li>▪ Mix of Discoms and C&amp;I customer base</li> <li>▪ Targeting new areas of demand through Green Hydrogen and Energy storage</li> </ul>
<b>Receivable risk</b>	<ul style="list-style-type: none"> <li>▪ Payment security through mandatory provision of LCs before power off-take</li> <li>▪ Late payment surcharge fees are charged for delays</li> <li>▪ Cabinet approves US\$37 bn for power discom reforms</li> <li>▪ Defined framework for recovery of costs due to 'Change in Law'</li> </ul>	<ul style="list-style-type: none"> <li>▪ All plants placed favorably in States' Merit Order Dispatch</li> <li>▪ Portfolio diversified across multiple off-takers</li> <li>▪ No history of any bad debts from routine LT trade receivables</li> <li>▪ Recovery of late payment surcharge in case of delayed payments from discoms</li> </ul>
<b>Domestic industry for capacity addition</b>	<ul style="list-style-type: none"> <li>▪ ~\$2.9 bn production linked incentive scheme for high efficiency PV modules</li> <li>▪ ~\$2.2 bn scheme for ACC batteries</li> </ul>	<ul style="list-style-type: none"> <li>▪ Technology agnostic approach</li> <li>▪ To benefit from domestic capacity addition</li> </ul>

# Adequately addressing key risks and concerns (2/2)

Key Risks/Concerns	Favourable Policy Support and Market Interventions	Mitigation Strategy by JSW Energy
<b>Offtake Risk (revenue/volume)</b>	<ul style="list-style-type: none"> <li>Must-run status for renewable; Rule notified to provide regulatory support towards 'Must-run' status - Electricity (Promotion of generation from renewable sources of energy by addressing Must Run and other matters) Rules, 2021</li> </ul>	<ul style="list-style-type: none"> <li>Hydro plants under 'Must-run status' with no scheduling risk</li> <li>~98% of LT PPA under two-part tariff; Plant Availability maintained above normative across locations to recover fixed charge; fluctuations in fuel cost and forex are completely pass through</li> </ul>
<b>Soundness of Auction framework</b>	<ul style="list-style-type: none"> <li>Efficient and Transparent competitive bidding process</li> <li>Innovative models emerging: Hybrid solar, Renewable-plus-storage , Round-the-clock (RTC) renewable power</li> </ul>	<ul style="list-style-type: none"> <li>Highest ever single bid standalone capacity secured under any of the Indian renewable auction – 810 MW wind capacity awarded under SECI IX</li> <li>Participating in RTC bids</li> </ul>
<b>Grid Infrastructure capability</b>	<ul style="list-style-type: none"> <li>Development of dedicated Green Energy Corridors for evacuating RE capacity</li> </ul>	<ul style="list-style-type: none"> <li>Pump Storage and battery storage solutions offer opportunity to address grid balancing issues</li> <li>Received LOAs for 500MW/1,000 MWh SECI battery energy storage project</li> </ul>



**JSW** Energy

**Investor Relations Contact:**

[ir.jswenergy@jsw.in](mailto:ir.jswenergy@jsw.in)

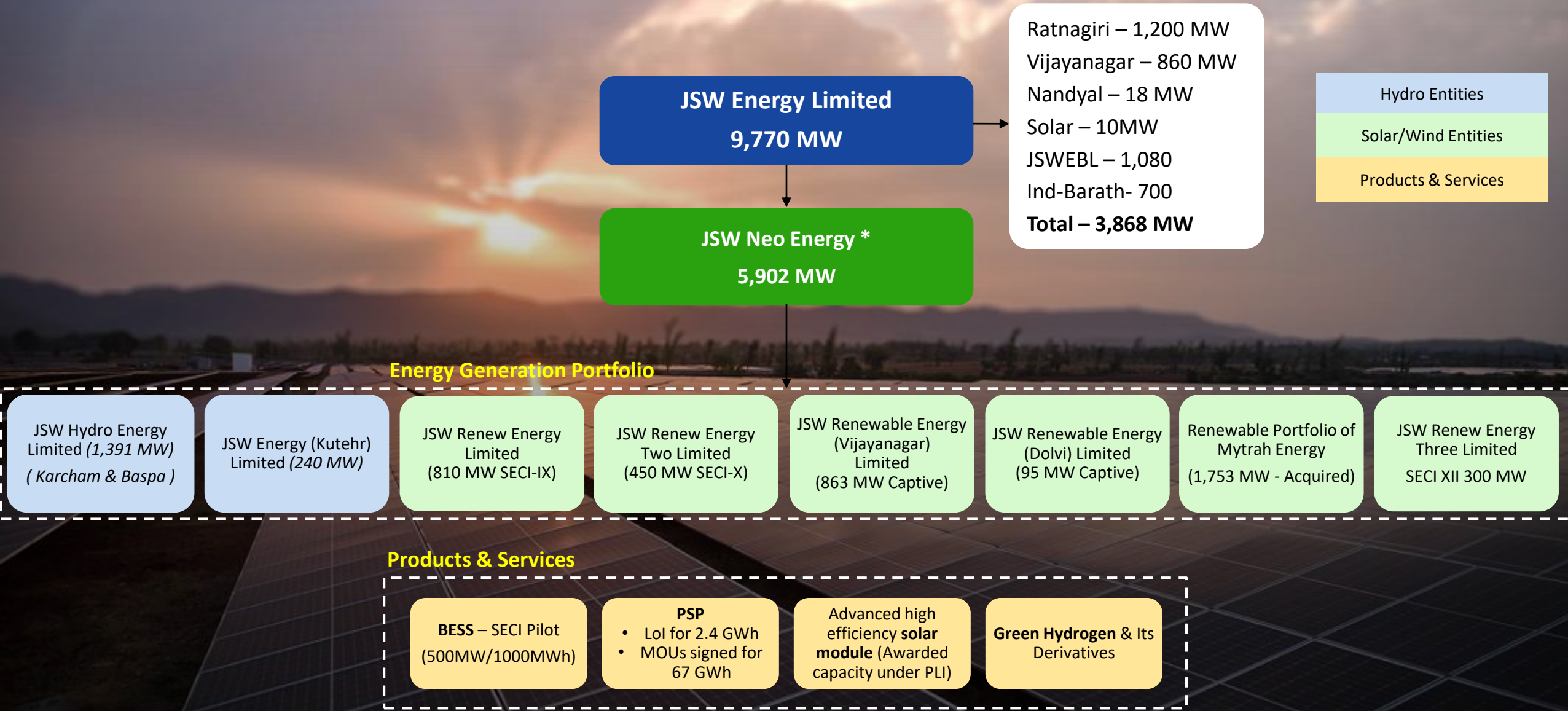
**ESG Data Profile: [Link](#)**

# Annexures





# JSW Energy – Broad Structure



# Cash Returns on Adjusted Net Worth

₹ Cr (Unless mentioned otherwise)

Quarter ended	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23
<b>Reported PAT</b>	<b>201</b>	<b>339</b>	<b>324</b>	<b>864</b>	<b>560</b>	<b>466</b>	<b>180</b>	<b>272</b>
Add: Depreciation	288	284	281	277	289	294	295	291
Add/(less): Deferred Taxes	21	32	26	(7)	84	42	14	24
(Less): Dividend Received	-	(46)	-	-	-	(122)	-	-
Add/(less): One-offs*	-	-	-	(492)	(120)	0	-	-
<b>Cash PAT</b>	<b>510</b>	<b>610</b>	<b>631</b>	<b>643</b>	<b>813</b>	<b>681</b>	<b>489</b>	<b>587</b>
<b>Cash PAT (TTM)</b>	<b>1,940</b>	<b>1,899</b>	<b>2,097</b>	<b>2,395</b>	<b>2,697</b>	<b>2,767</b>	<b>2,625</b>	<b>2,570</b>
<b>Adjusted Net Worth**</b>	<b>11,529</b>	<b>11,475</b>	<b>11,830</b>	<b>12,688</b>	<b>12,952</b>	<b>13,491</b>	<b>13,446</b>	<b>14,177</b>
<b>Cash Returns on Net Worth (%)</b>	<b>17%</b>	<b>17%</b>	<b>18%</b>	<b>19%</b>	<b>21%</b>	<b>21%</b>	<b>20%</b>	<b>18%</b>

**Strong cash returns of >18% translates to yearly cash profits of ~₹2,500 Cr**

\*Refer note 5 of [Q4FY22](#) release for Mar-22 one-offs. Jun-22: Exceptional items ₹ 120 Cr represents reversal of loss allowance made in earlier years on loan given to a party.

\*\* Adjustment in net worth by excluding the value of shares of JSW Steel

# JSW Energy's Corporate Journey

