

Delivering Promises Realising True Potential

Corporate Presentation
November 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\$23 Bn¹



JSW Energy

- Power producer with 9.8 GW of generation portfolio,
- Targeting 20GW generation + 40GWh of Storage by FY30
- Market Cap: ~US\$ 7.6 Bn



Infrastructure

- Second largest port operator in India with 158.4 mtpa capacity
- Operates environmental-friendly seaports & terminals
- Equity listing in Oct 2023, Market Cap: ~US\$ 5.1 Bn



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 largest steel producer
- Capacity of 29.7 mtpa, growing to 38.5 mtpa by FY25
- Targeting 50 mtpa capacity by FY31
- Market Cap: ~US\$ 22.2 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 Zvlov



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 : Transitioning towards green energy

Mission

Providing Reliable, Affordable and Sustainable power

Vision

To be a leading integrated power company with presence across value chain

FY2030 To become a 20 GW company and 40GWh Energy Storage

FY2050 To become carbon neutral by 2050

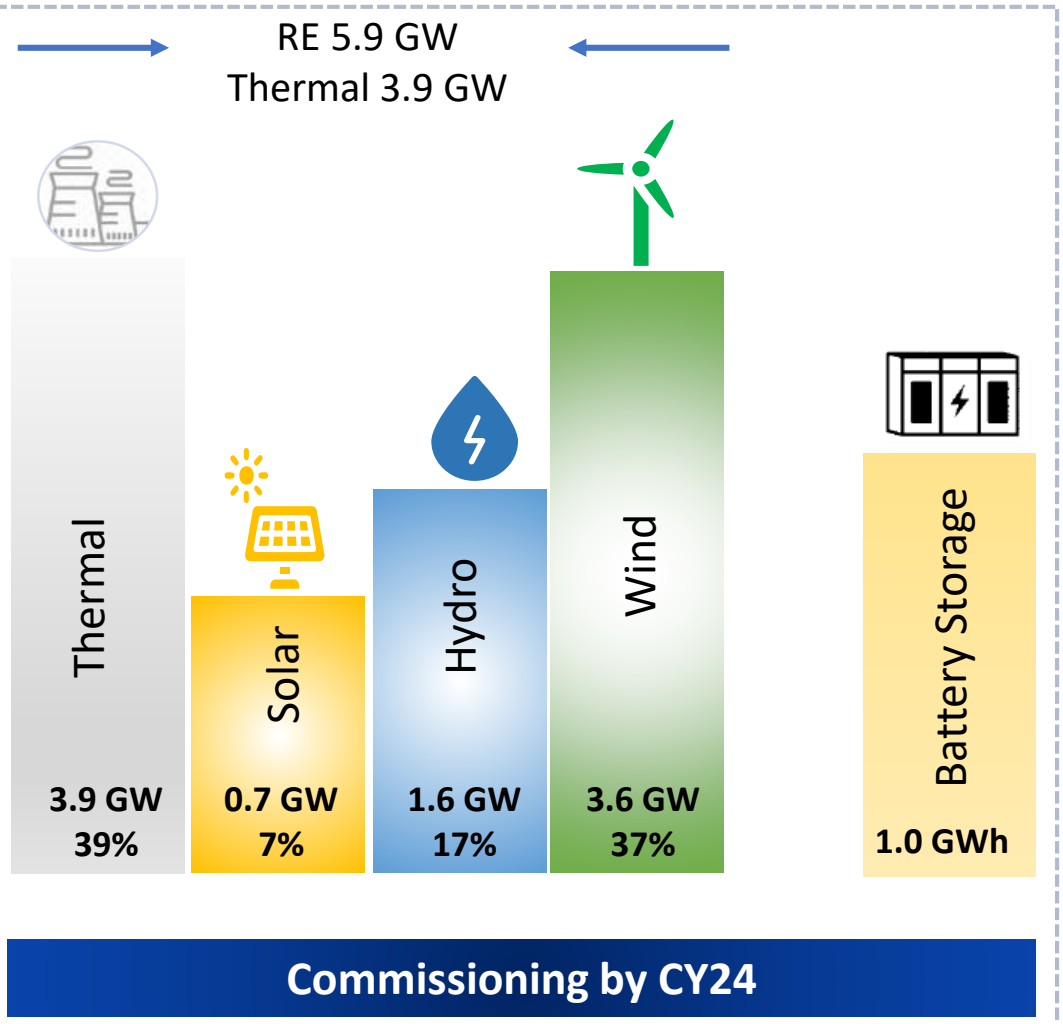
JSW Energy – Presence across the value chain

Power Generation
9.8 GW

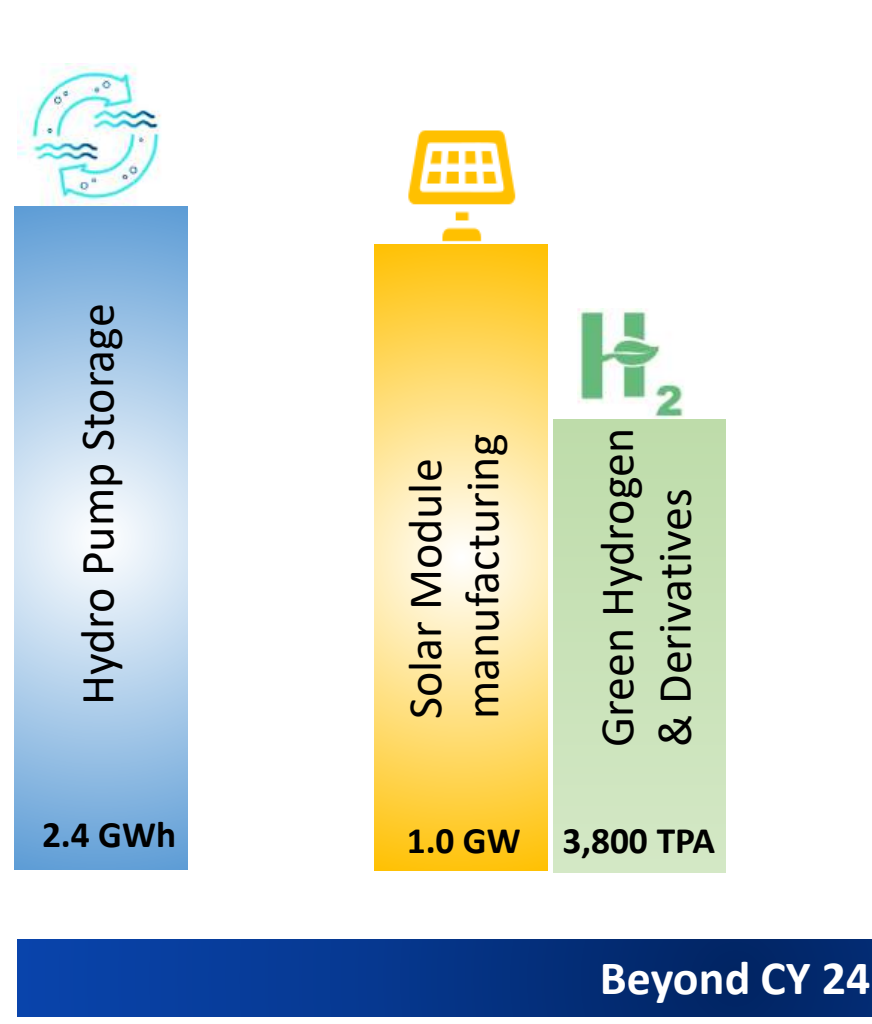
Energy Storage
3.4 GWh of locked-in

Energy Products & Services
Solar Module & Green H2

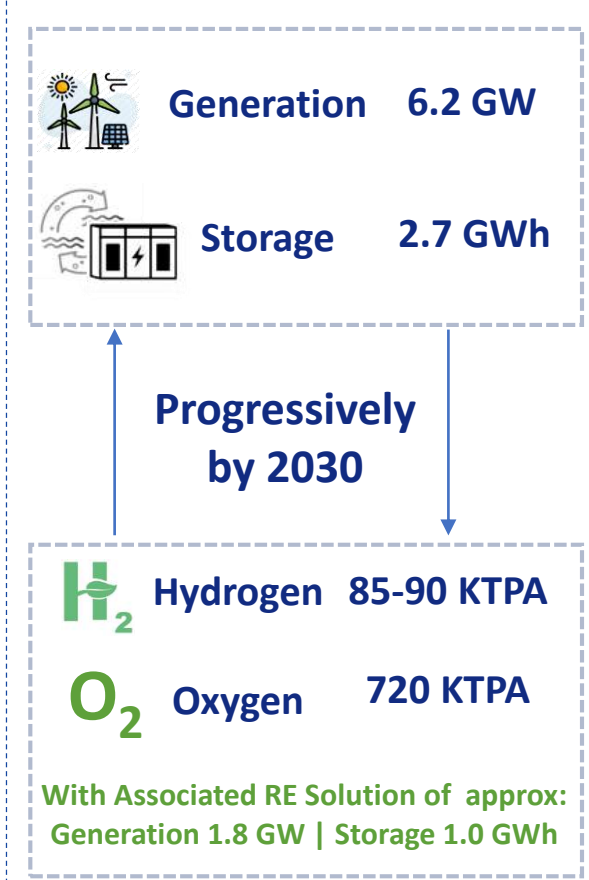
Group Captive
Renewables & Green H2



Commissioning by CY24

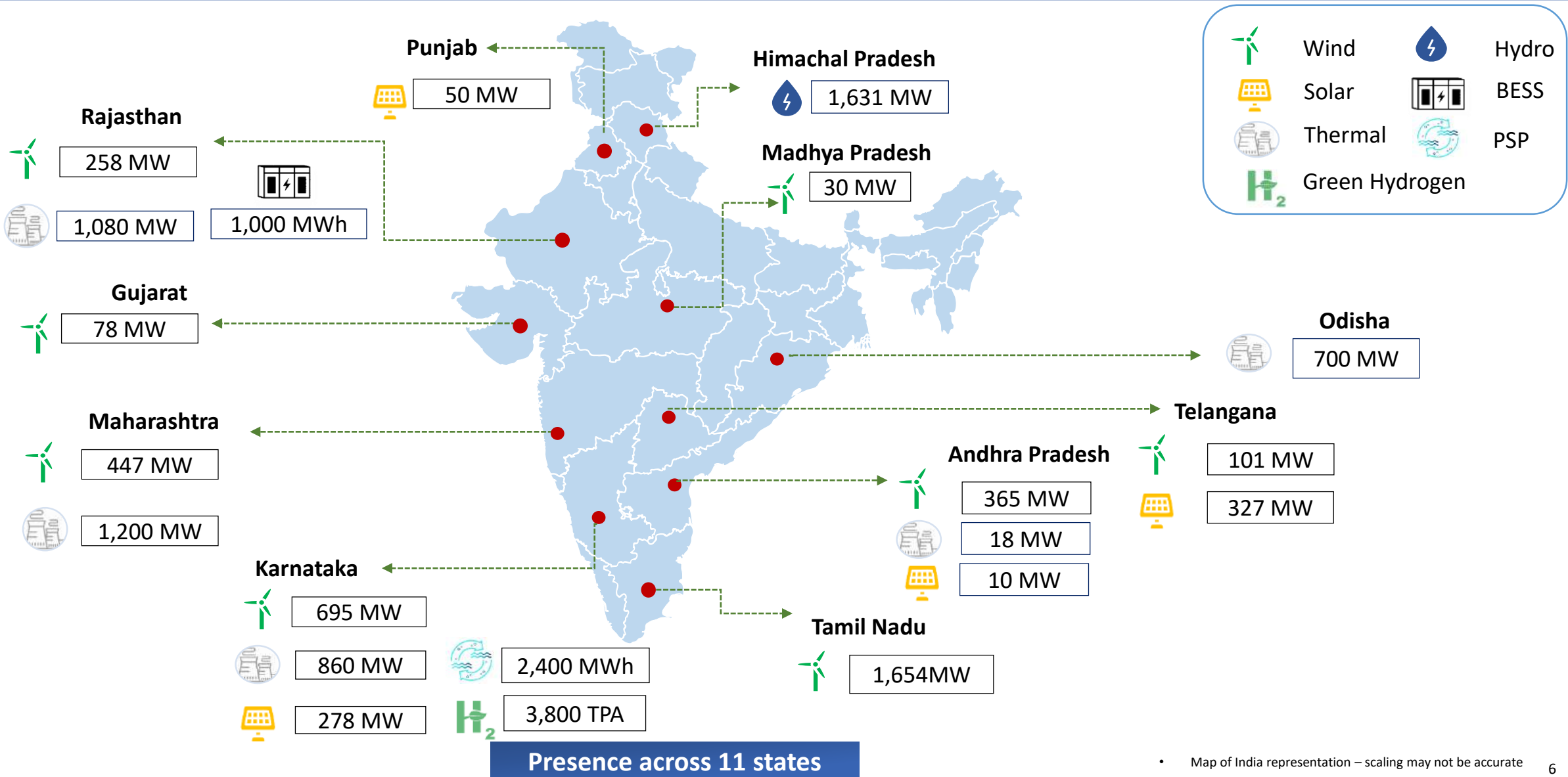


Beyond CY 24



Developed a Pan India Footprint of Diverse Asset Base

Operational Capacity by CY 24 (9,792 MW)



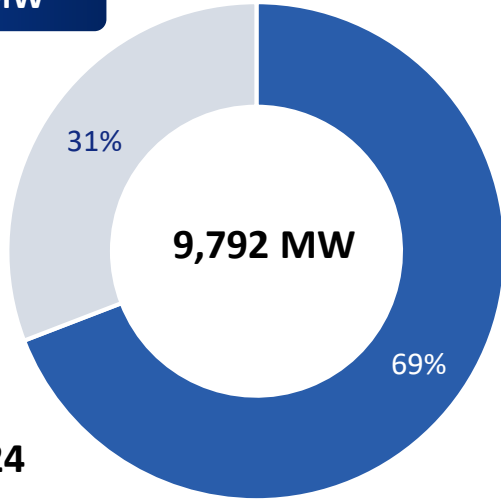
Well Diversified Portfolio – Focused on Maximising Cash Returns

Capacity Breakdown

Generation 9,792 MW

**Under-construction
3,021 MW**

Wind 2,081 MW
Thermal 700 MW
Hydro 240 MW



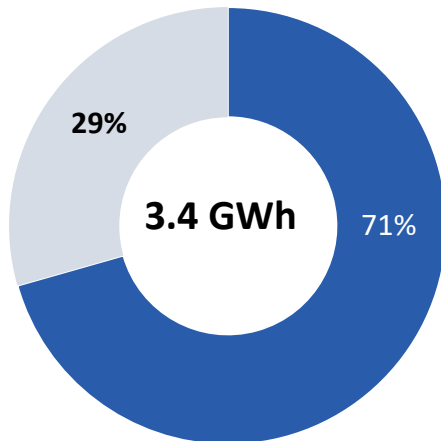
Installed 6,771 MW

Thermal 3,158 MW
Wind 1,547 MW
Hydro 1,391 MW
Solar 675 MW

Commissioned by CY24

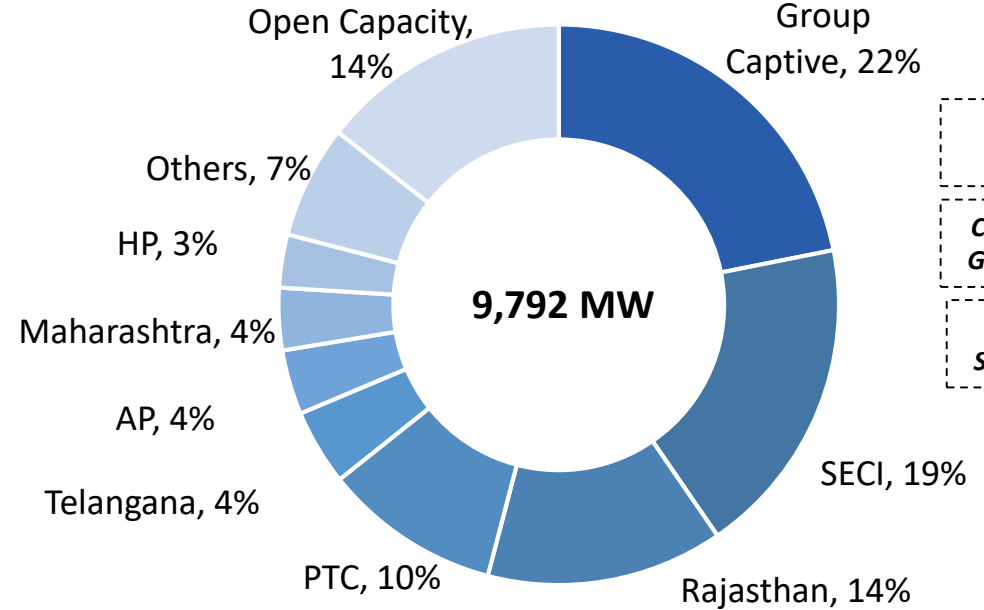
Storage 3.4 GWh locked in

**BESS
1.0 GWh**



**Hydro PSP
2.4 GWh**

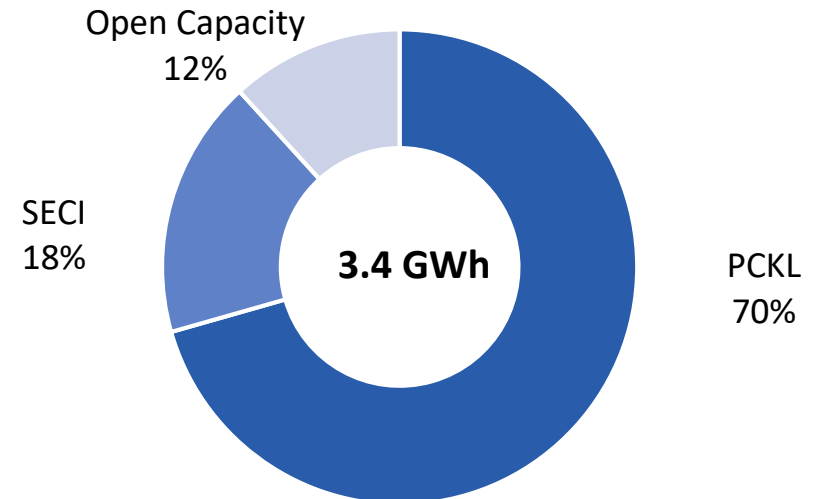
Diversified Offtakers



Current open capacity – 11%

Current Exposure to Group Captive - 20%

Total exposure to State discoms- ~34%



Agenda

Safety & Sustainability

Healthy Operations and Financials

Why JSW Energy ?

JSW NEO – at a Glance

Appendix

Safety & Sustainability



Continued Focus on Health & Safety Excellence

All Figures are for Q2 FY24



Zero severe injuries/fatalities

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



84% of contractors covered by JSW CARES audit

20 Contractors (34%) achieve 5 Star rating & 73% contractors achieve 3 Star and above in a stringent Internal Safety Assessment and evaluation.



36,100+ Cumulative Safety Observations Resolved in Q2 FY24

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



GWO (Global Wind Organization) Training for WTG project Teams

- ✓ 58% of Target Employees have completed GWO training
- ✓ 55% of Target Associate employees have completed GWO training
- ✓ All remaining target employees to complete training by December - 2023



Enhancing Safety for Employees, Contractors & Community

- ✓ High Risks (Number 21 to25) mitigation through BHM tool initiated across all major plants – Barmer, Vijayanagar, Ratnagiri & Hydro Plants. Expected completion progressively by Dec-2023 onwards
- ✓ High Risks numbers 16 to 20 – audit completed. All improvement recommendations being implemented for finalization at respective locations
- ✓ Hydro Sholtu – Safety documentation & systems enhancements underway as part of preparation for BSC 5 STAR Gap Audit Dec-2023



Sustainability: Framework and Policies

17 Focus Areas with 2030 Targets from 2020 as Base Year

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

<small>International Finance Corporation WORLD BANK GROUP Creating Markets, Creating Opportunities</small>	<small>United Nations Global Compact</small>	<small>UNITED NATIONS GUIDING PRINCIPLES ON BUSINESS & HUMAN RIGHTS</small>	<small>NATIONAL GUIDELINES ON RESPONSIBLE BUSINESS CONDUCT</small>	

Governance & Oversight by Sustainability Committee

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

ESG Ratings – best amongst peers

- CDP* : A- (Leadership Level)
- Sustainalytics: 23.9 (Medium Risk)
- DJSI Corporate Sustainability Assessment: 70
- FTSE4Good Index constituent

Carbon Neutrality by 2050

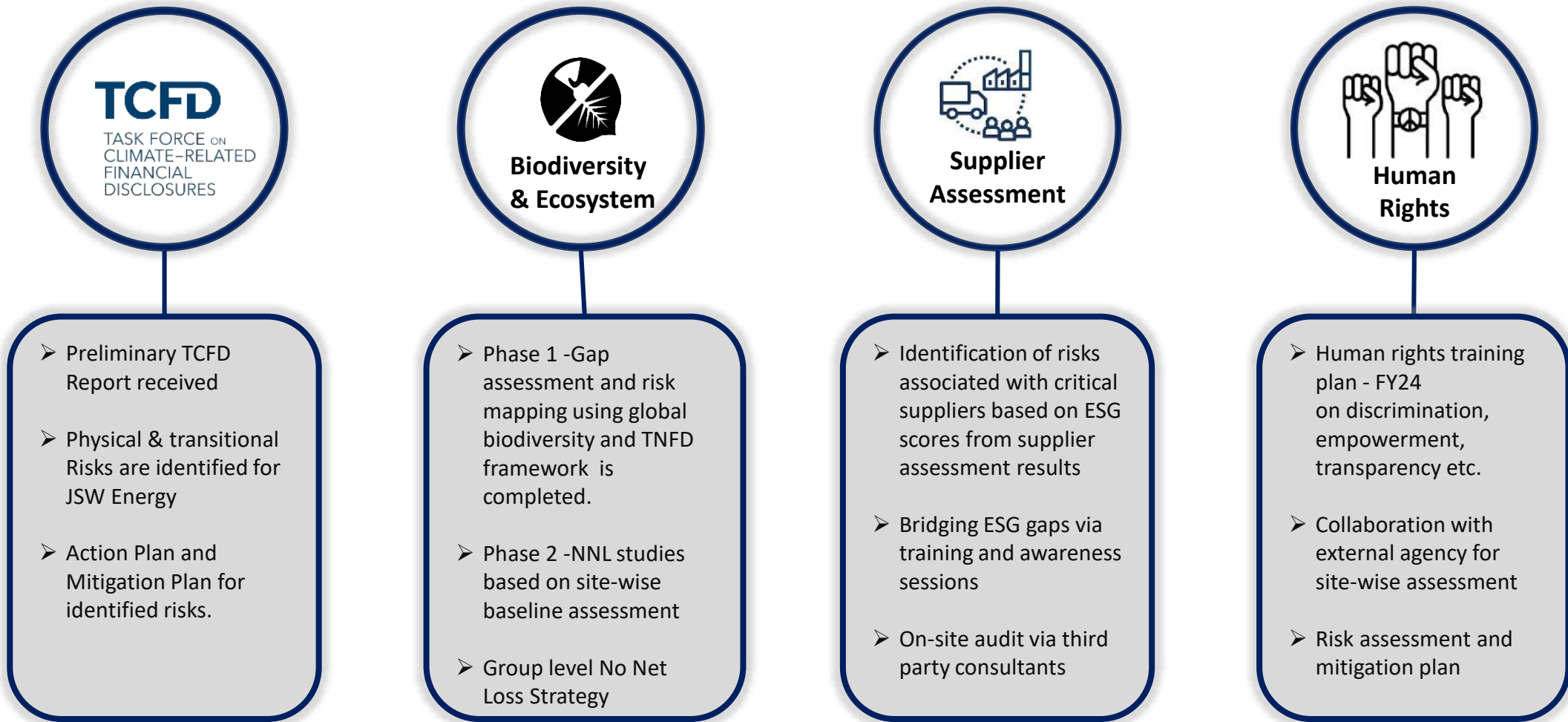
	<p>Committed to set science based targets to keep global warming to 1.5°C under SBTi</p> <p><small>DRIVING AMBITIOUS CORPORATE CLIMATE ACTION</small></p>
--	---

Integrated Reporting since FY19



Sustainability: Targets and Strategy

SD Targets		FY20 Actuals	FY30 Targets	Improvement	Strategic Initiatives and Approach
Climate Change	<ul style="list-style-type: none"> GHG Emissions tCO₂e/ MWh 	0.76	0.215 *	60%	<ul style="list-style-type: none"> TCFD –Preliminary report received Supply Chain Sustainability – development of Digital Platform is in progress for value chain partners. Increased share of renewable energy for decarbonization – Total capacity added till Q2FY 24 – 3,613 MW
	<hr/>				
Water Security	<ul style="list-style-type: none"> Specific fresh water intake (m³/MWh) 	1.10	0.591	46%	<ul style="list-style-type: none"> Maintaining zero liquid discharge across operations Optimising utilisation of rain water harvesting system Installation of technology for operating cooling towers with higher Cycles of Concentration with modified chemical regime Reuse of treated effluent of Sewage Treatment Plan for horticulture
	<hr/>				
Waste	<ul style="list-style-type: none"> Specific Waste (Ash) Generation (t/MWh) 	0.070	0.032	54%	<ul style="list-style-type: none"> Integrated Strategy towards efficient waste management – Ash Management , recycling of waste water , handling hazardous waste through authorized recycler. Utilisation of low ash coal in Ratnagiri and Vijayanagar Re-utilisation of pond ash as well as Bottom ash in Boiler
	<ul style="list-style-type: none"> Waste Recycled - Ash (%) 	100	100	-	
<hr/>					
Air Emissions	Specific process emissions(Kg/MWh)				<ul style="list-style-type: none"> Ensuring ESP (Electrostatic Precipitator) Fields availability Optimising Lime dozing system efficiency Process efficiency improvements
	<ul style="list-style-type: none"> PM 	0.16	0.053	67%	
	<ul style="list-style-type: none"> SO_x 	1.78	0.683	61%	
	<ul style="list-style-type: none"> NO_x 	1.01	0.373	63%	
<hr/>					
Biodiversity	<ul style="list-style-type: none"> Biodiversity at our operating sites 	-	Achieve 'no net loss' of biodiversity		<ul style="list-style-type: none"> Biodiversity Desktop Assessment completed for Thermal - Ratnagiri, Ind bharat , Wind - Dharapuram, Sandur, Tuticorin and Hydro Power Plant – Baspa II & Karcham Wangtoo. Increased green cover across operations Implementation of Biodiversity Management plan at Barmer Plant . management plan at Barmer location.



Sustainability: H1 FY24 Performance

Key Highlights



Climate Change

- Increased share of renewable energy for deep decarbonisation
- Wind Projects – Tuticorin – generation started and commissioned 216 MW till Q2 FY 24.
- Continuous focus on process improvements to reduce GHG emission



Water Security

- Maintained zero liquid discharge across operations
- Optimising utilisation of rain water harvesting system. 1,68,429 m3 water utilised by Ratnagiri Plant by this method
- Reuse of treated effluent of Sewage Treatment Plant for horticulture
- 2,36,869 m3 of water recycled and utilizing for process at Vijayanagar



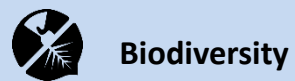
Waste

- Reutilising pond ash as well as bottom ash in Boiler.
- 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 to reduced air emissions

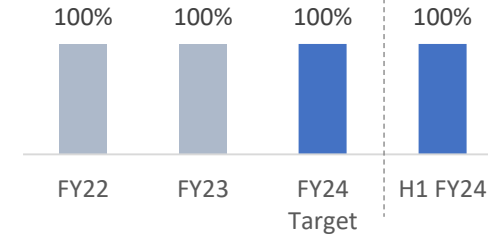


Biodiversity

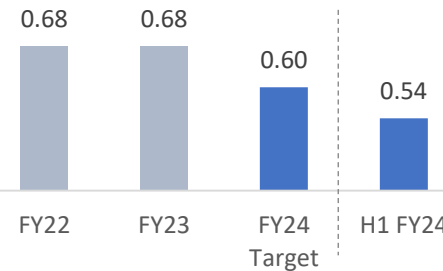
- Plantations of various species numbered 635, 1730, and 800 in the areas around Ratnagiri, Vijayanagar, and the Hydro Power Plants, respectively.
- Draft report of Biodiversity Assessment for Ratnagiri, Hydro, Wind Plant is received from CII
- Increase in green cover at all operations to achieve 'No Net Loss' of Biodiversity by 2030.

Performance

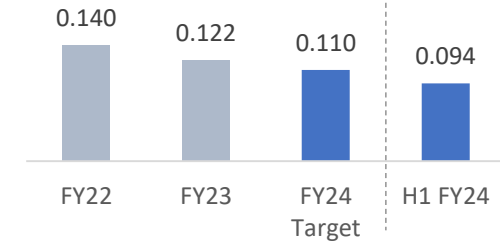
Ash Utilisation (%)



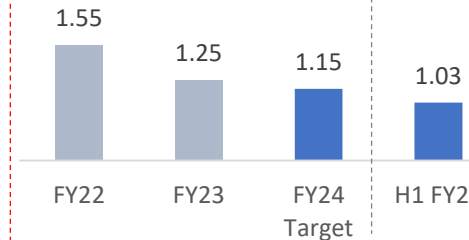
CO2 intensity (tCO2e/MWh)



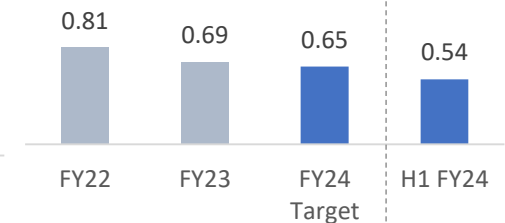
PM Emissions (kg/MWh)



SOx Emissions (kg/MWh)



NOx Emissions (kg/MWh)



Sustainability: Empowering Our Communities



Sustainability: Empowering Our Communities

Project Shikhar: Bringing Powerful Transformation in the Field Of Sports

Our Footprint

- 4 Centres
- 120+ Trainees
- 374 Medals

Boxing training sessions



Strength and Condition coaching



Shikhar Fellowship



Dedicated Professional Coaches



Events and Competitions Platform



Health & Nutrition

Eye screening Camp at Hydro



Healthcare Outreach at Ratnagiri



12,549
people availed OPD,
IPD services

588
lab tests done
in FY23

378
people availed
ambulance services

Medicinal Farming

A total of 230 farmers initiated medicinal farming



[Health & Nutrition](#)



[Water & Environment](#)



[Waste Management](#)



[Agri-livelihoods](#)



[Education](#)



[Women's BPO & Livelihoods](#)



[Skill Enhancement](#)



[Art, Culture & Heritage](#)



[Sports](#)

Awards and Recognition



“Gold Award - 14th Exceed Green future Environment Award in sustainability category” Sustainable development foundation



Power- Gen ESG & Sustainability award -2023 for Best ESG Initiative – Water Efficiency by Council of Enviro Excellence



SEEM National Award for Energy Efficiency Platinum category in Sept-23



“National award for excellence in energy management 2023” Organized by CII



1st Prize in TOPS Convention by Indian Society for Quality, Bengaluru Chapter in July-23



Received LACP 2022 Vision Awards for JSW Energy Annual Report (FY 22-23) – Gold Award, Top 80 Reports & Top 10 Indian Reports

Strong Board Oversight and Leadership



Mr. Sajjan Jindal
Chairman & Managing Director



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



Mr. Prashant Jain
Joint Managing Director & CEO



Mr. Pritesh Vinay
Director (Finance)



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



Mr. Rajiv Chaudhri
Independent Director



Majority Independent Board: 6/10 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

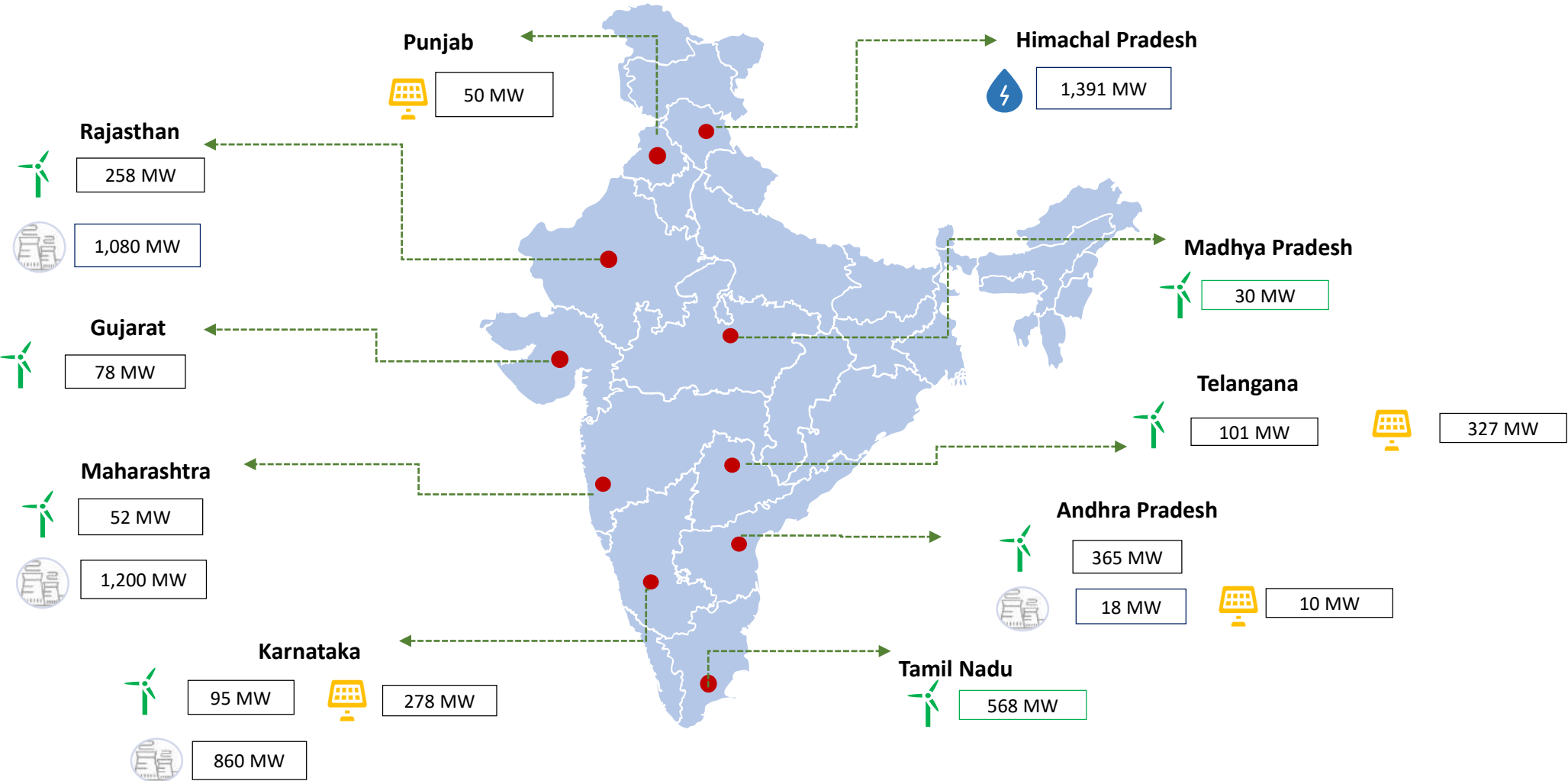
Healthy Operations and Financials



Sholtu Hydro Power Plant - Turbine

Operating Locations: Pan India presence

Current Operational Capacity (6,771 MW)



Operating Plants across 10 states

Healthy Operations and Financials

85%

Capacity under LT PPA¹

~90%

EBITDA contribution from LT

~22BUs

Net Generation

₹ 2,999Cr

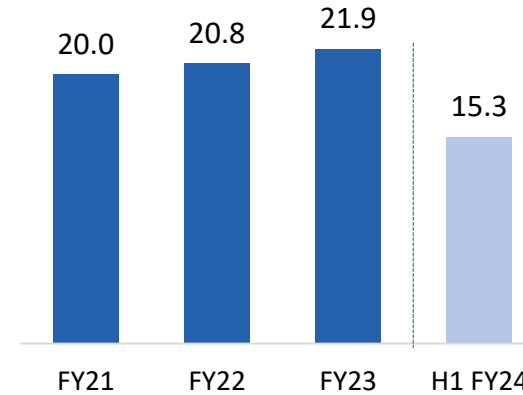
Cash PAT²

Figures are for FY23

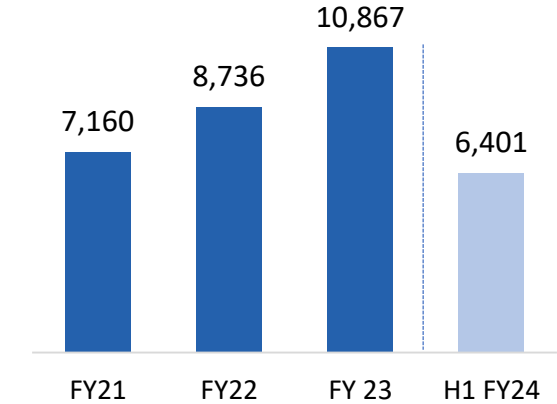
- Steady operations and robust financial: Track record of strong yearly cash profits of ~₹2,999 Crores.
- High LT PPA tie-up rendering high cash flow visibility
 - Almost all LT PPA under two-part tariff (imported/domestic fuel cost/forex pass through)
 - Remaining Avg. Life of PPA: ~18 years
 - Remaining Avg. Life of Assets: ~25 years
- Diversified off-takers
 - All plants placed favorably in Merit Order Despatch
 - Hydro projects under 'must-run' status
 - Trade receivables (excl. Acquired RE Portfolio) at ₹ 1,599 Cr equaling to 56 receivable days as on Sep'30, 2023

Resilient business model with steady cashflow generation despite sectoral headwinds

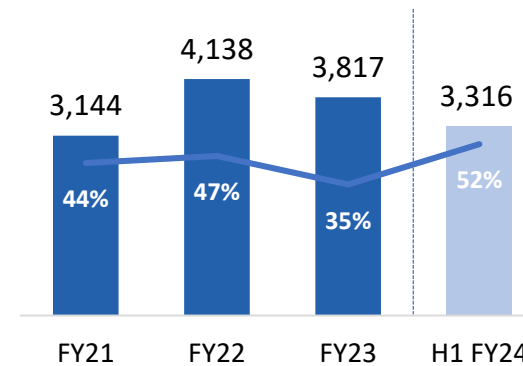
Net Generation (BUs)



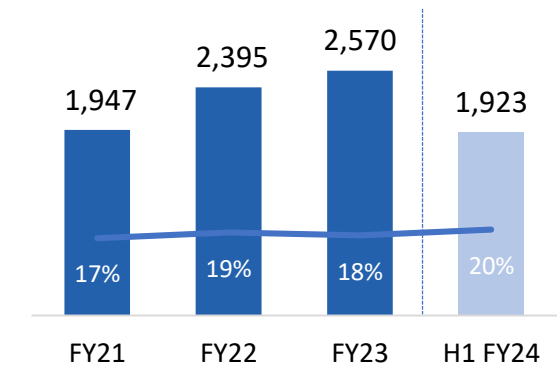
Total Income³ (₹ Crore)



EBITDA & EBITDA Margin (₹ Crore)



Cash PAT² (₹ Crore) and Return on Adj.Net Worth



Robust balance sheet to support renewable-led growth

4.6x

Net Debt/EBITDA

1.2x

Net Debt/Equity

8.51%

Wt. average cost of debt *

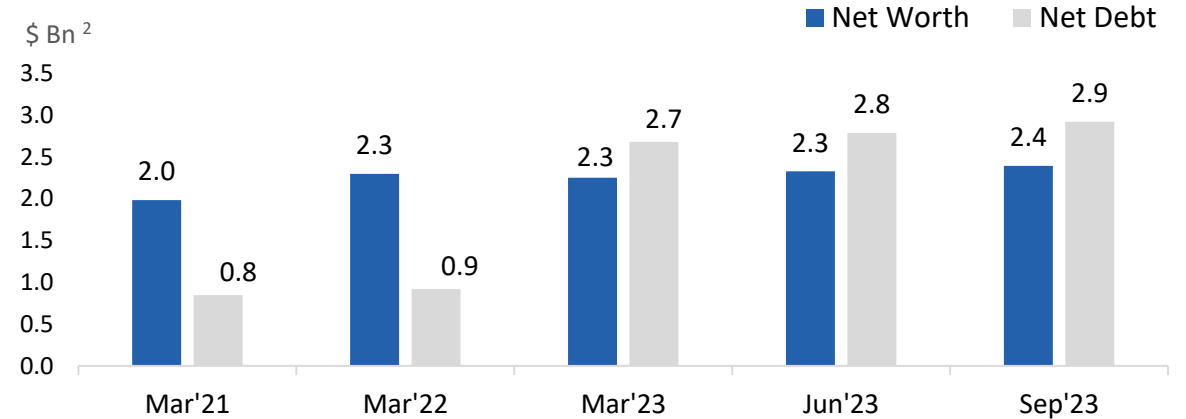
56

Receivable Days**

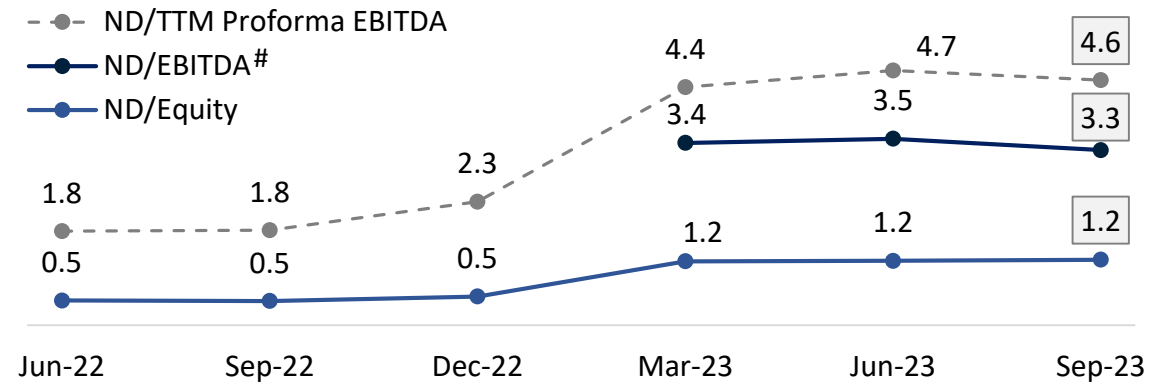
Figures as of September 30, 2023

- ✓ Strong Liquidity with healthy cash balances: ₹ 3,291 Crore as of Sept 30, 2023
- ✓ Financial flexibility enhanced by equity investments:
 - Holding 7Cr (70mn) JSW Steel shares of Value¹: ₹ 5,018 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
- ✓ Weighted average cost of debt* is 8.51% as of Sep 30, 2023

Robust balance sheet & strong cashflow available to pursue growth



ND/EBITDA for Operational Projects at 3.3x (Sep-23)³



1 Value of JSW Steel Share holdings as on Sep 30 2023

2 Conversion based on USD = INR spot rate as of respective date

3. Based on net debt for operational projects of ₹10,338 crores; total net debt at the group level stands at ₹24,260 crores on Sep-23.

* Including Acquired RE Portfolio's debt post refinancing and debt sizing package which is in place | ** Excl Acquired RE Portfolio receivables | # Including Acquired RE Portfolio Debt and excluding debt on under-construction projects

Net Debt Movement

Particulars in ₹ Cr

- Capital Work- in-Progress (CWIP)
- Acquired RE Portfolio
- Operational Projects

Leverage	Net Debt (₹ Cr)	EBITDA (TTM; ₹ Cr)	ND/EBITDA (x)
Operating	10,338	3,993	2.6x
Acquired RE Portfolio (Normalised EBITDA)	8,072	1,650	4.9x
Combined (Excl. CWIP)	18,410	5,643	3.3x



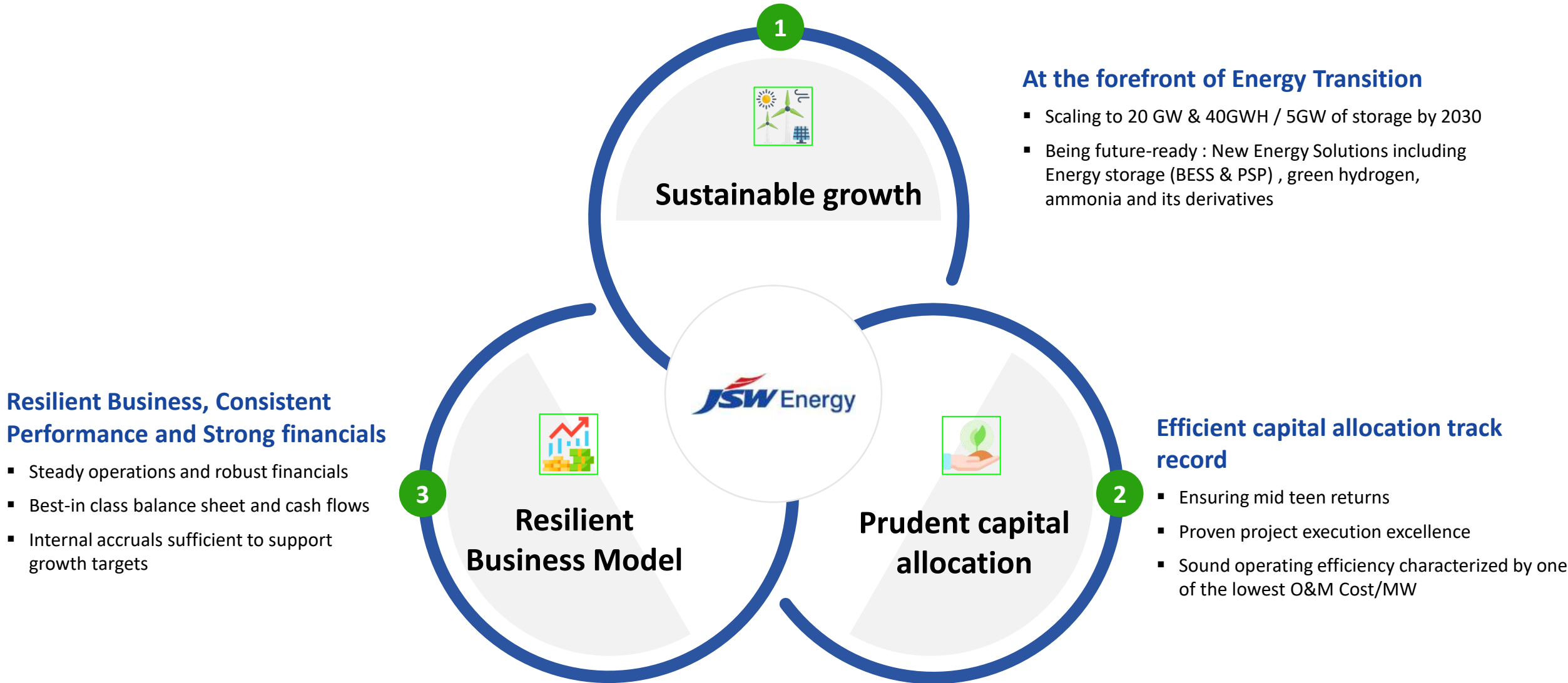
Sustainable ND/EBITDA is within the guided range of 3.5x-4.0x

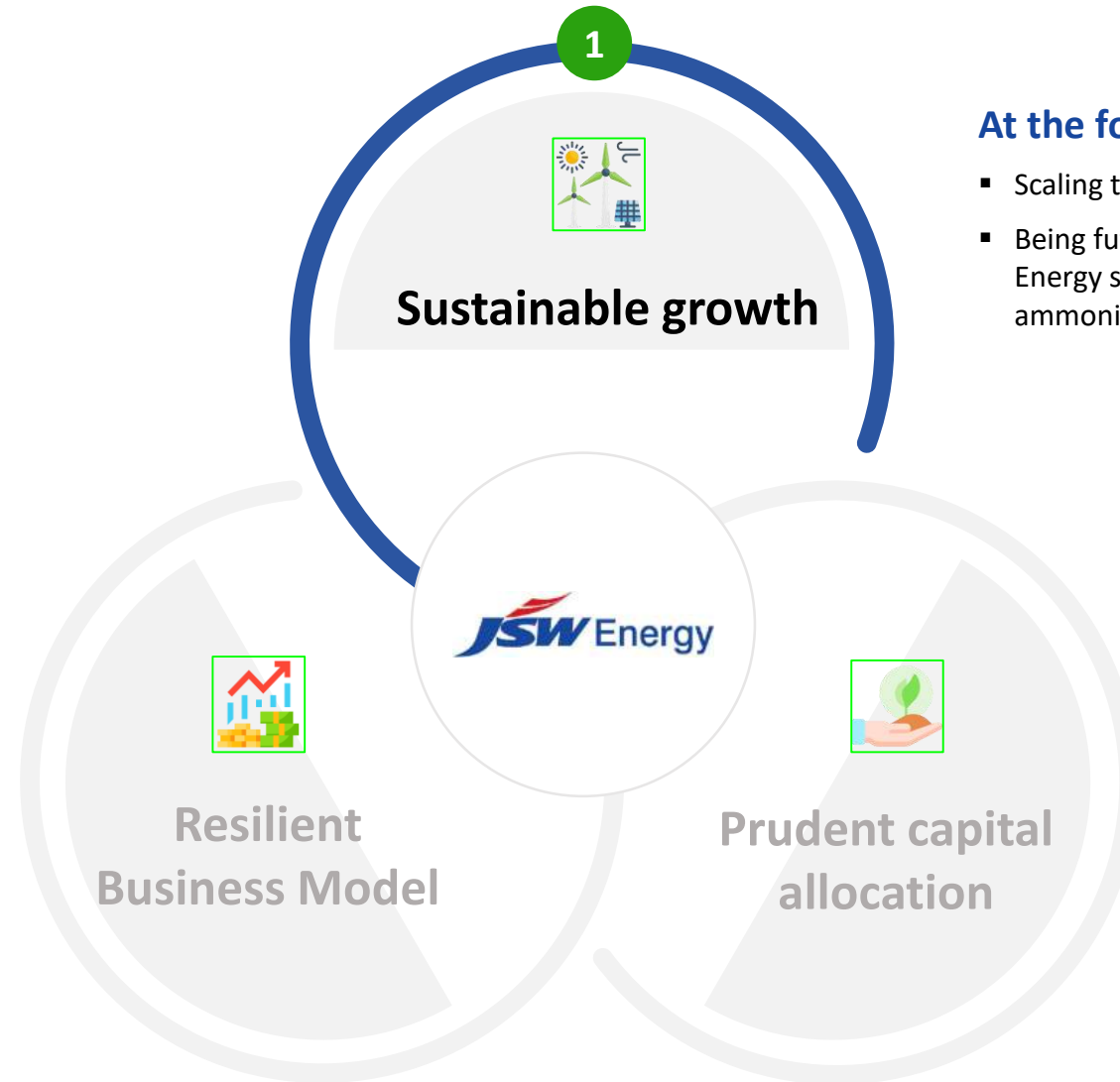
Why JSW Energy ?

- Compelling Investment Story
- Key Highlights

An aerial photograph of a large dam and reservoir. The dam is a long concrete structure with several spillways. The reservoir is a large body of greenish water. The surrounding area is hilly and has some vegetation. A blue diagonal line runs across the image from the top left to the bottom right.

Committed to reaching
Net Zero emissions by 2050



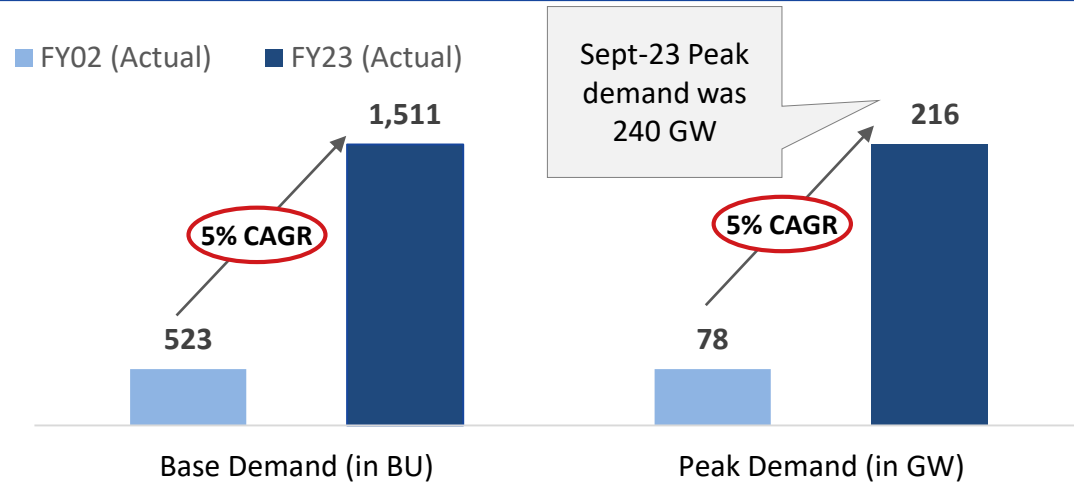


At the forefront of Energy Transition

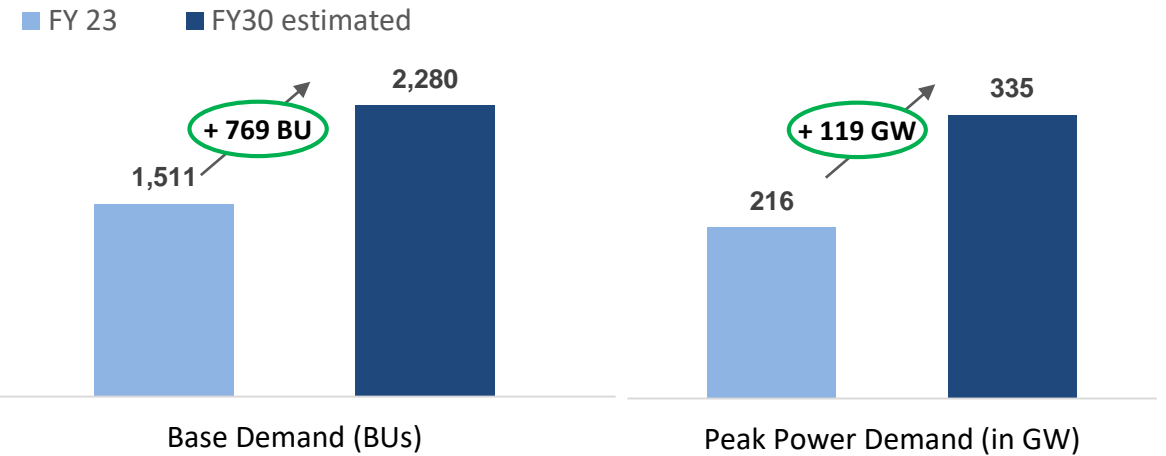
- Scaling to 20 GW & 40GWH / 5GW of storage by 2030
- Being future-ready : New Energy Solutions including Energy storage (BESS & PSP) , green hydrogen, ammonia and its derivatives

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

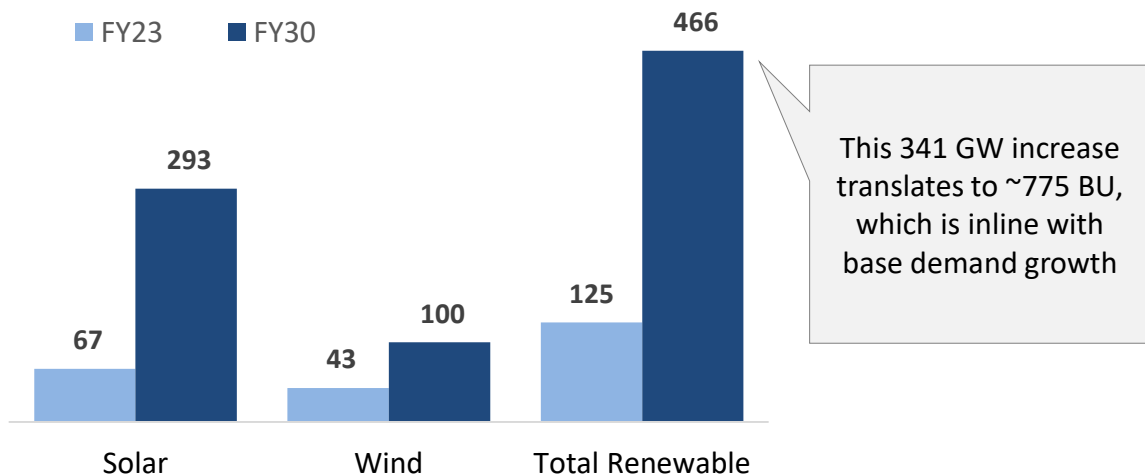
Historical Power Demand Growth



Similar growth expected in power demand over next decade



Demand to be met incrementally with Renewable Energy



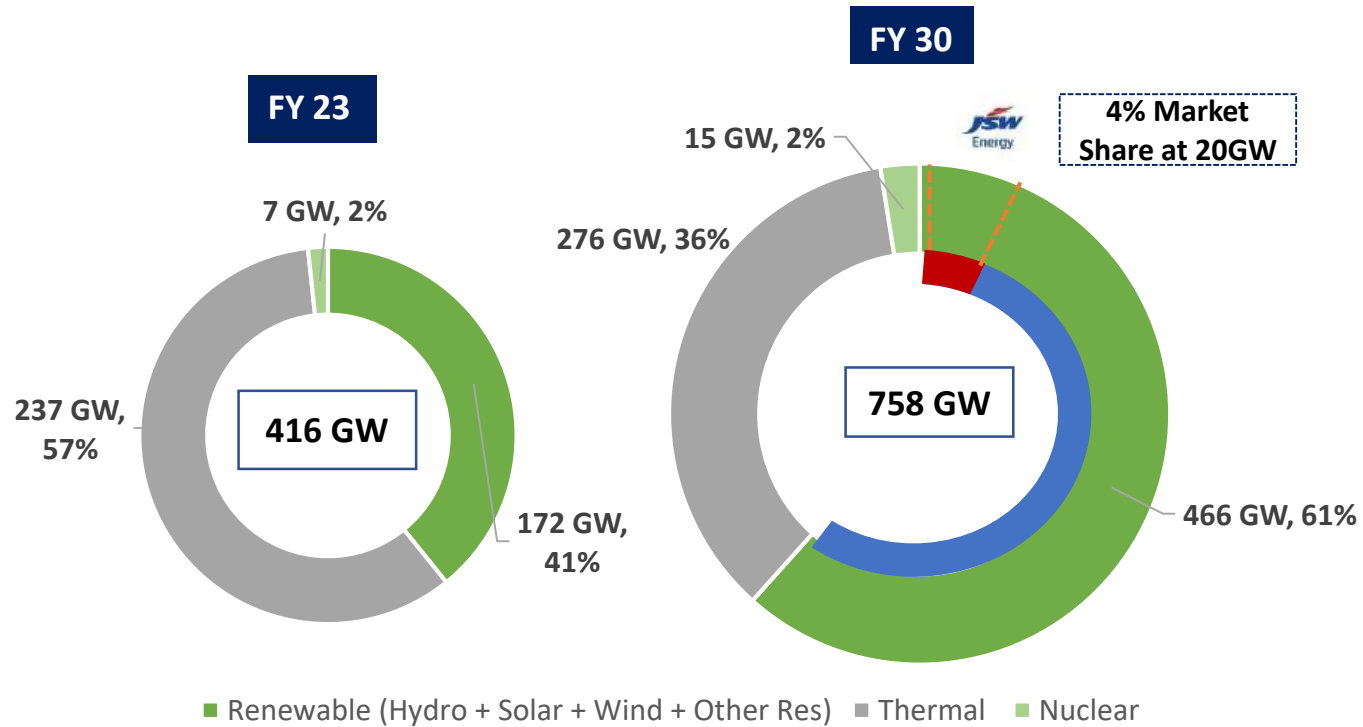
Rapid Urbanization and universal electrification to drive power demand

- ✓ India is world's third largest power producer, however has a low per capita consumption (~1/3rd 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

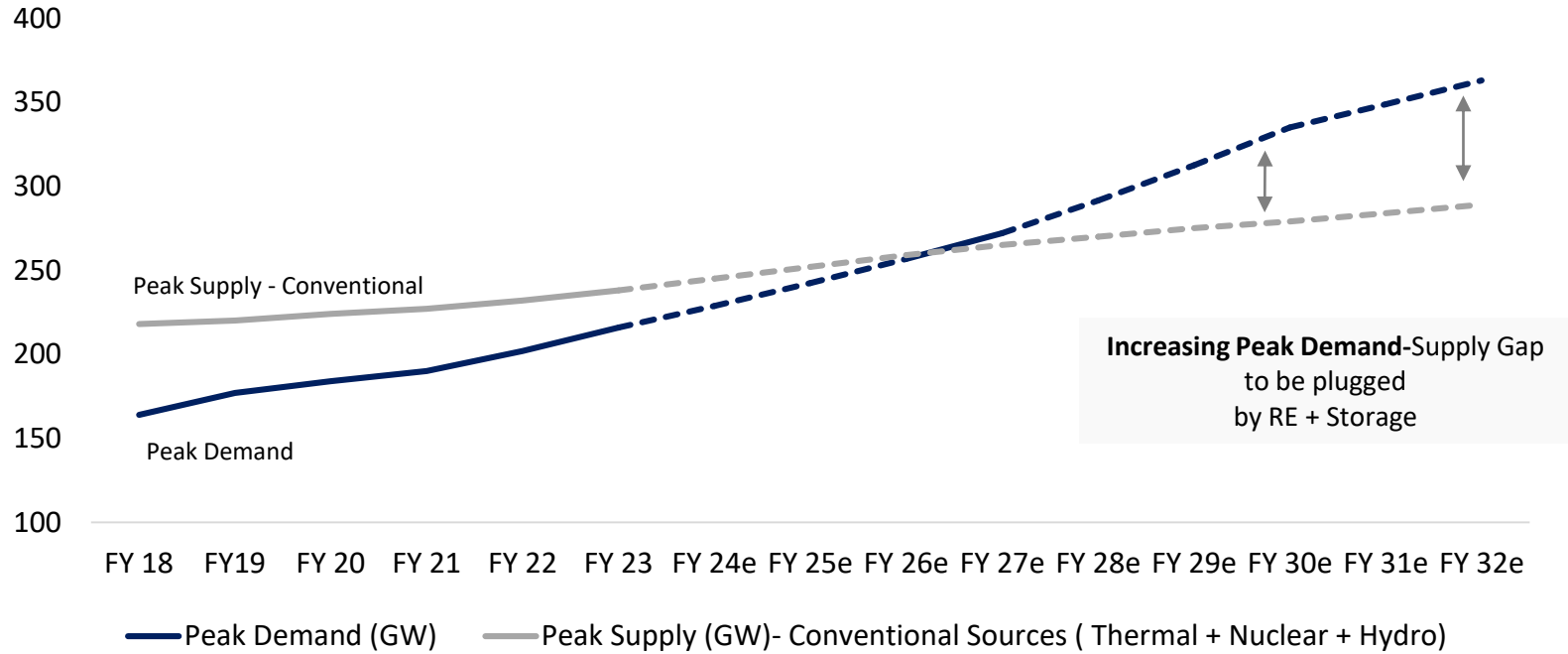


Domain	Environment	Our Approach
Capital	<ul style="list-style-type: none"> High cost of borrowing due to interest rate hike 	<ul style="list-style-type: none"> Bidding assumptions take into account interest cycles through life of project
Supply Chain	<ul style="list-style-type: none"> BCD on imported Solar Panels/Cells Uncertainty of supply of Solar panels and WTGs 	<ul style="list-style-type: none"> De-risking of supply chain through backward integration
Policy and Fiscal Support	<ul style="list-style-type: none"> Draft Hydro PSP and Green Hydrogen policy Budgetary support for Green Transition 	<ul style="list-style-type: none"> Early Mover in hydro PSP and BESS
Business Model	<ul style="list-style-type: none"> Reduced bidding intensity combined with lower tariff discovery 	<ul style="list-style-type: none"> Bidding discipline with a targeted IRR at P90

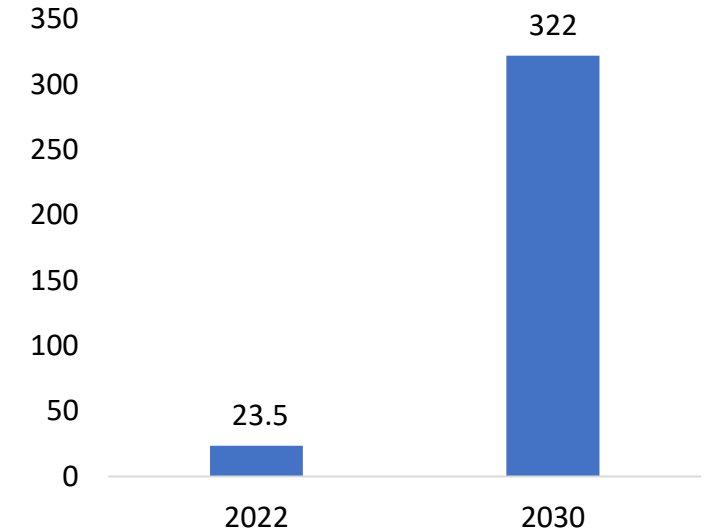
- JSW Energy's strategy is to grow its capacity to 20 GW by FY30 mainly through renewable capacity addition, which is in line with India's renewable energy growth trajectory
- Being part of JSW Group which has its presence across multiple business including steel, cement, infra and paints gives us the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

Energy Storage critical in India's Energy Transition

Peak Demand vs Supply from Conventional Sources (GW)



Storage Capacity GWh*



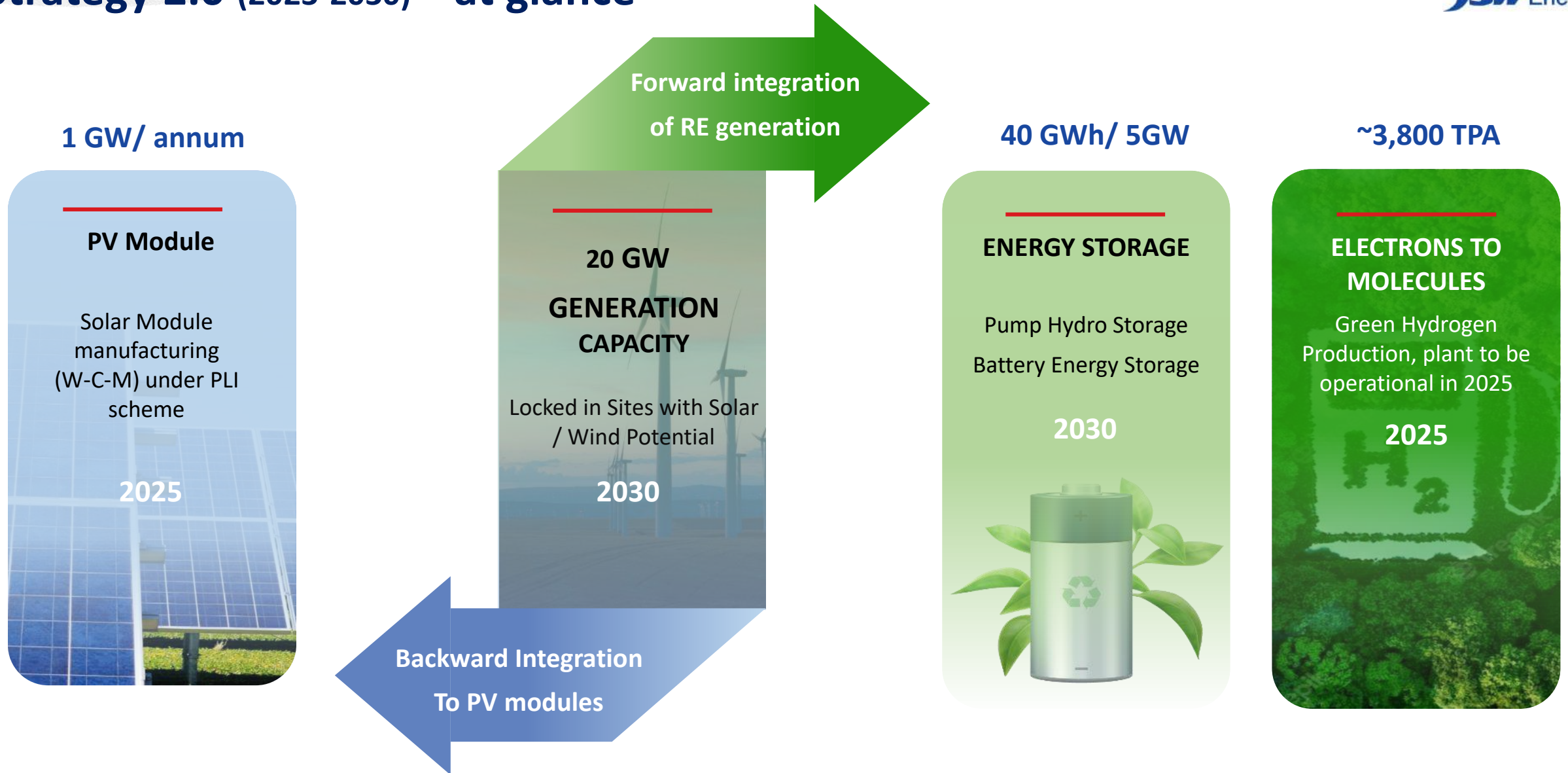
Renewable Energy + Storage Solutions required to plug increasing Peak Demand-Supply Gap going forward

- 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

Strategy 2.0 (2023-2030) – at glance



Growth driven by internal accruals

Normalised Net Debt/EBITDA to be in the range in 3.5x-4.0x

Balance Sheet Size to grow at 22% CAGR

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

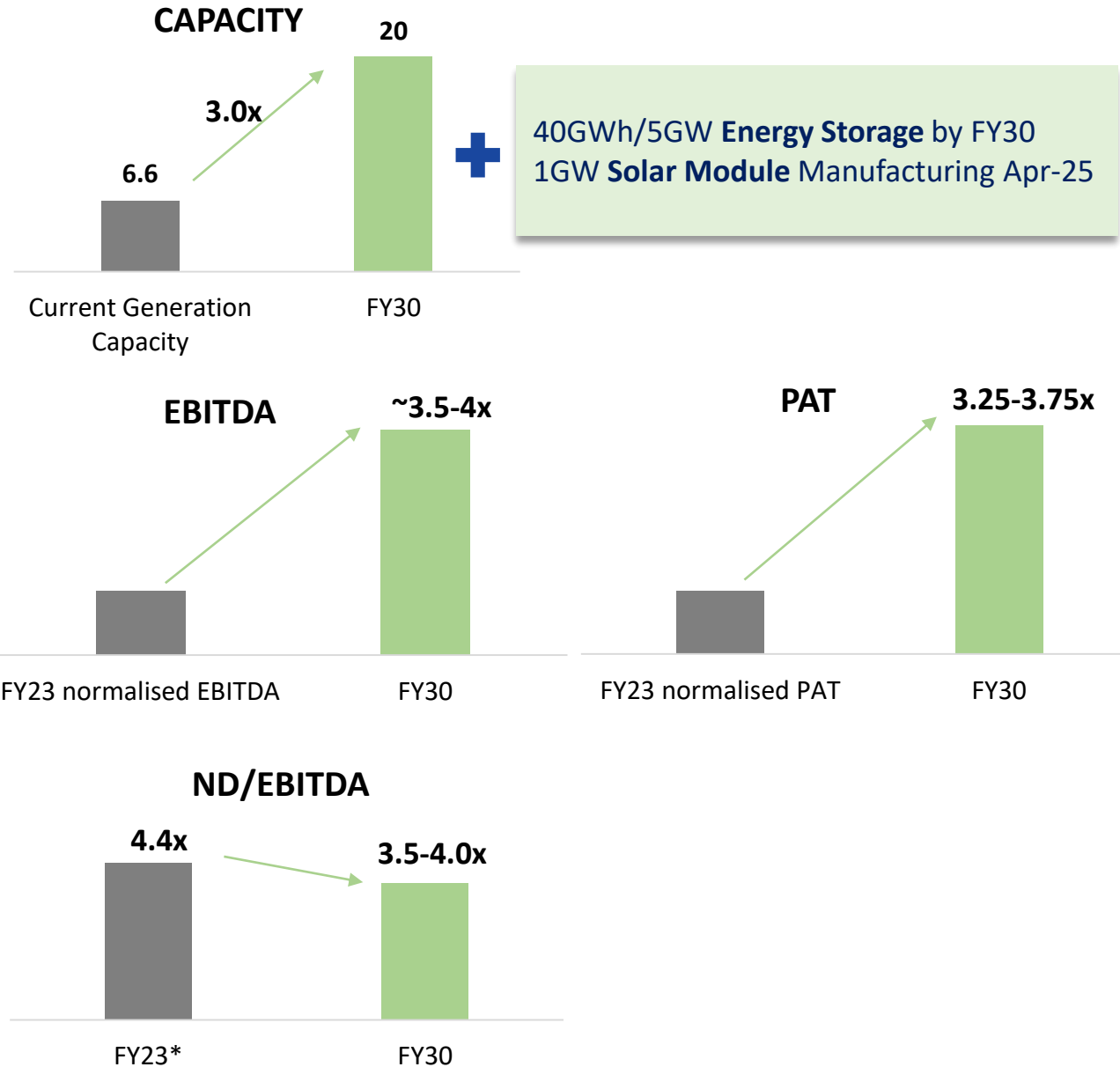
Pillars for Self sustainable and Integrated road map

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

Growth Multipliers

Portfolio generating healthy cash flows & 20% cash return¹

- ❖ **Steady operations and robust financials**
 - Portfolio TTM Cash PAT of ₹2,999 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 Sep 30, 2023: ₹ 5,018 Cr)
- ❖ Healthy receivables management and low working capital cycle



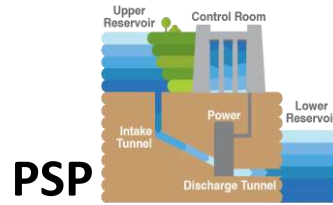
Battery Storage (BESS) and Hydro Pump Storage (HPSP)

Optimal Generation Capacity Mix for 2029-30

Apr-2023 Report

Base Case Energy Storage Capacity #

Total Generation (Inc. HPSP) Capacity Projection ##



PSP

19.0 GW
X 6 hours =
114 GWh



BESS*

41.6 GW
X 5 hours =
208 GWh

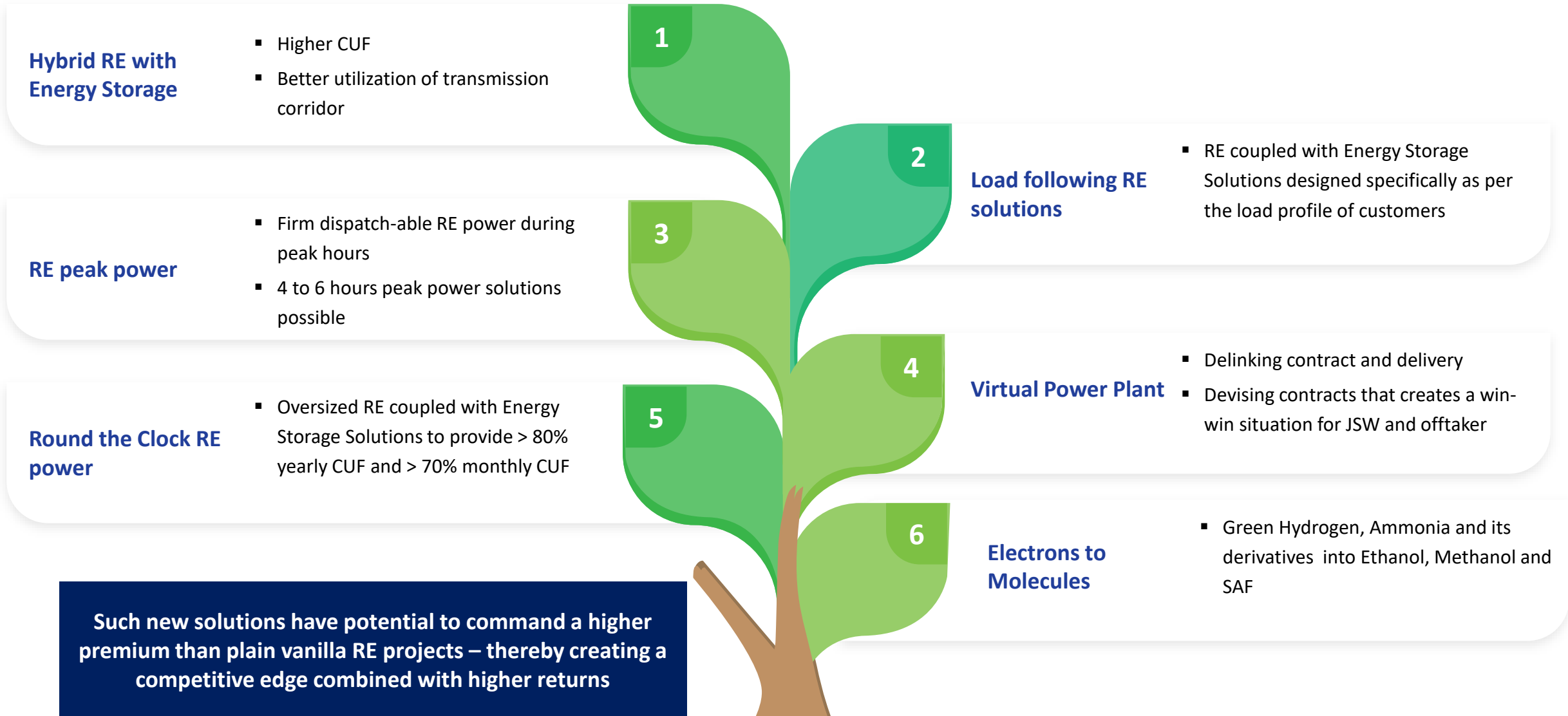
777 GW

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 ~80 GWh PSP/ 12.3 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 ~ 2.5-3.0)

India's Import Bill

India is 3rd 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 H₂ (Capacity- 3,800 TPA). This is towards production of Green Steel
- Signed MoU with JSW Steel for 85-90 KTPA of Green Hydrogen & 720 KTPA of Green Oxygen by 2030.

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

Blue Hydrogen: Grey hydrogen whose CO₂ 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 CO₂
↓ Low Cost

Main production route

- SMR + CCS
- Coal Gasification + CCS

Characteristics

↓ Low CO₂
↑ High Cost

Main production route

- Electrolysis using renewables

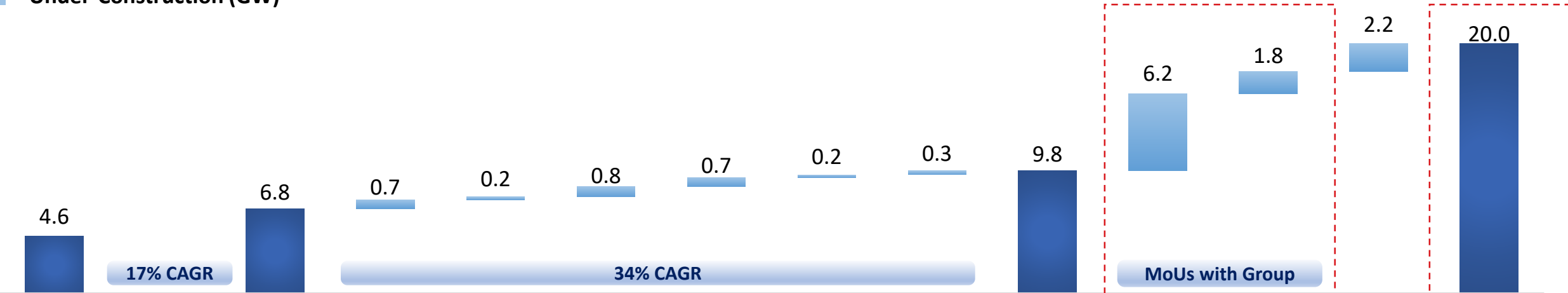
Characteristics

↓ Zero CO₂
↑ High Cost

Towards sustainable and integrated growth

Under Construction 3.0 GW, to be Commissioned by CY24

Under-Construction (GW)



	FY21	Current Operational	Ind-Barath	SECI X Wind	SECI IX Wind	Group Captive Wind	Kutehr	SECI XII Wind	Operational by CY24	MoU - Generation	MoU - RE for Hydrogen	Projects to bid	2030 Target
Commissioning			-Unit 1 in Q3 FY24 -Unit 2 in Q4 FY24	Progressively (216 MW CoD)	Progressively from Q3 FY24		Sept 2024	March 2025	1.0 GWh 	2.7 GWh 	1.0 GWh 		40 GWh
PPA			-	25 Years	25 Years	25 Years	35 Years	25 Years					
Offtaker			Open	SECI	SECI	JSW Steel	Haryana Discom	SECI					
Capital Expenditure			Total: ₹ 19,360 Cr Committed: ₹16,993 Cr Spent: ₹11,317 Cr (Including 225 MW Solar Operational)						~₹2,200 Cr				

Energy Products and Services

- 1 GW of solar module manufacturing (W-C-M)
- Contracted 3,800 TPA of Green hydrogen with JSW Steel
- MoUs for 85-90 KTPA of green hydrogen and 720 KTPA of green oxygen under group captive



Efficient capital allocation track record

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

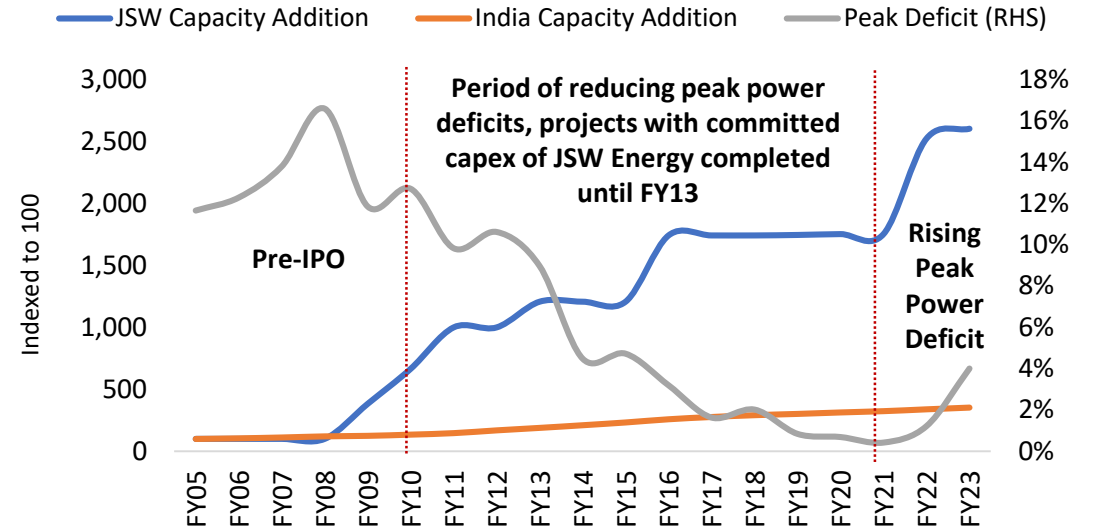
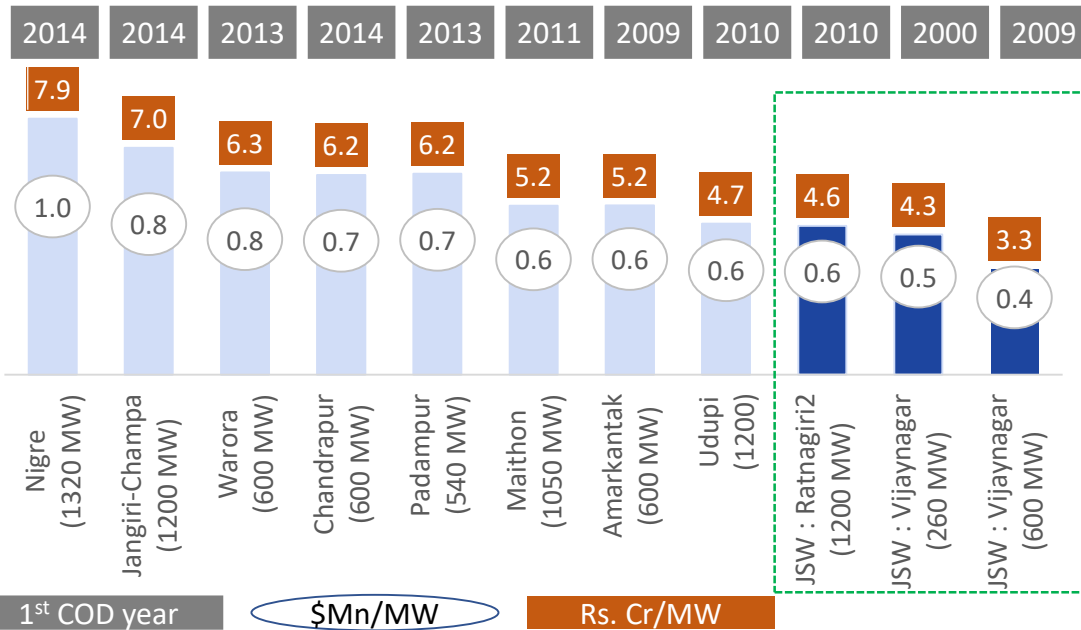
Proven project execution and operational excellence...

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

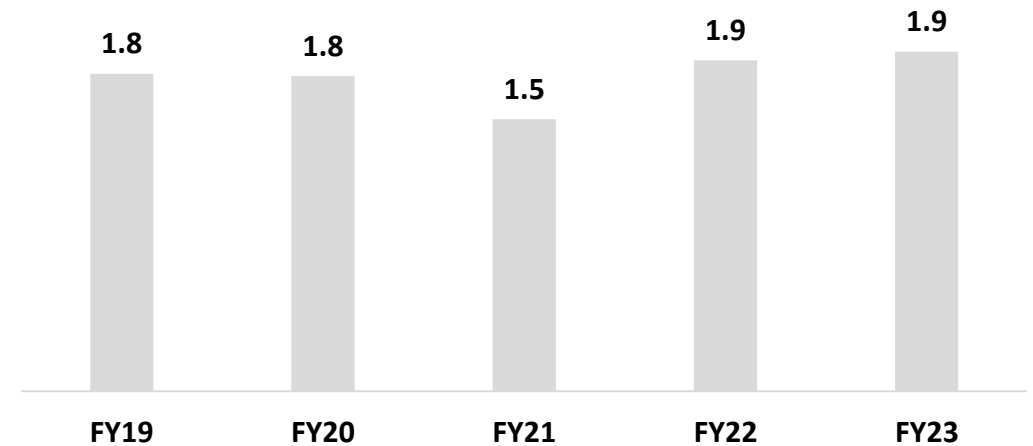
Selective bidding to ensure mid teen returns

Successful integration of inorganic capacities

One of the lowest project execution cost in the industry

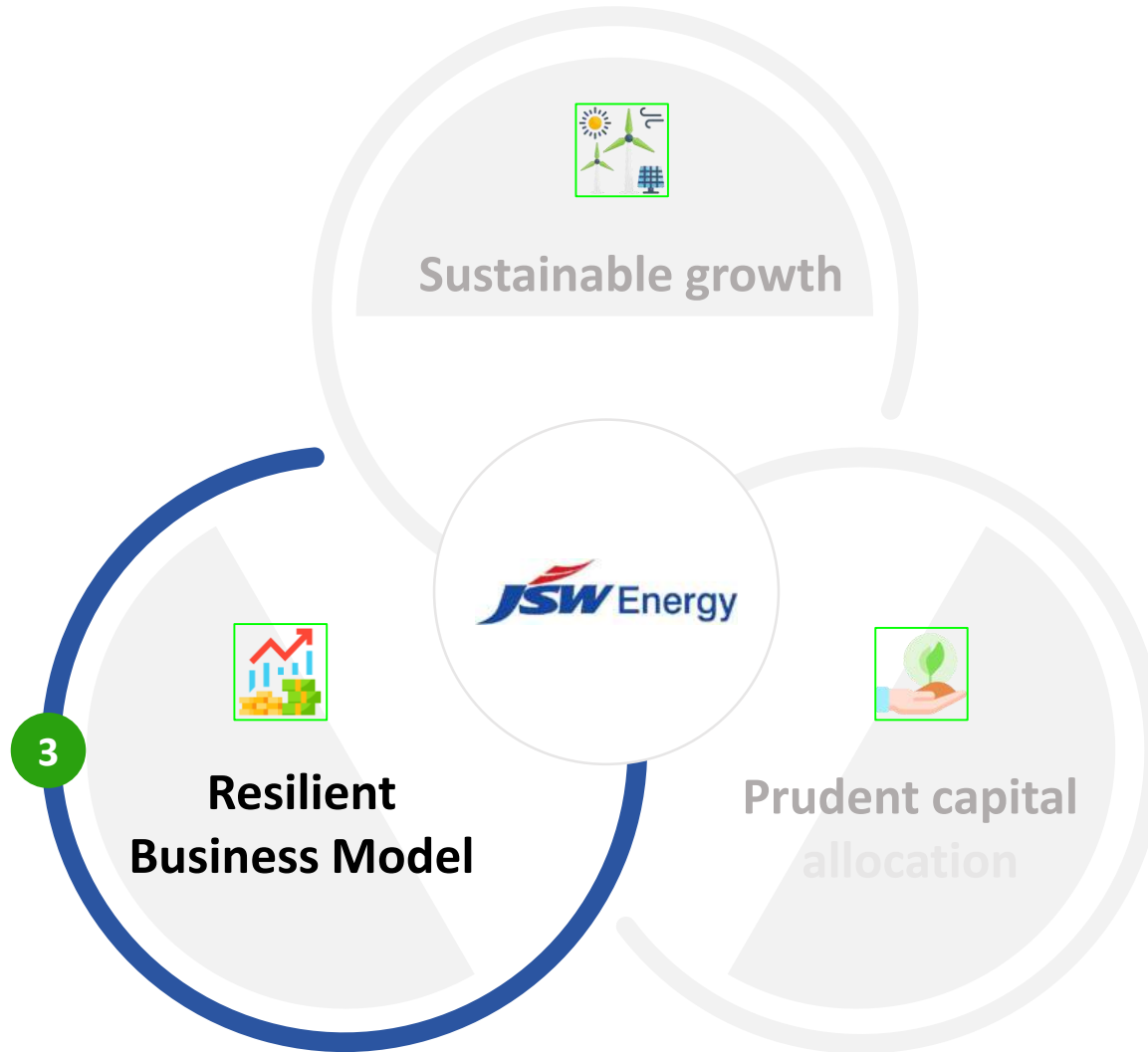


Sound operating efficiency characterized by one of the lowest O&M Cost/MW (₹ mn)



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



Robust Balance Sheet & Cashflows

Balance sheet headroom to pursue growth opportunities

- **Strong Financials**

Figures in ₹ Cr	As on Sept 30, 2023
Networth	19,877
Net Debt	24,260
Net Debt/TTM Proforma EBITDA	4.6x
Net Debt/Equity	1.2x
Wtd. Average Cost of Debt	8.51%
Cash PAT TTM	2,999

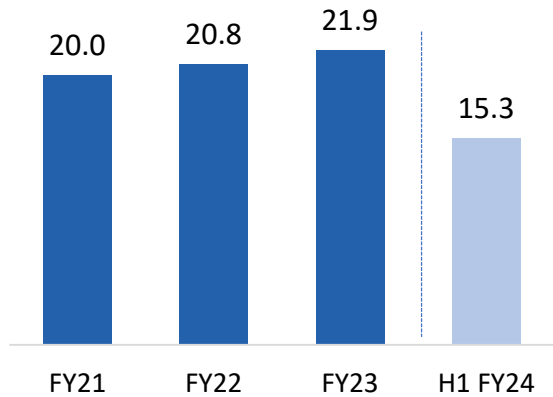
- **Healthy Credit Ratings and access to diverse pools of liquidity**

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

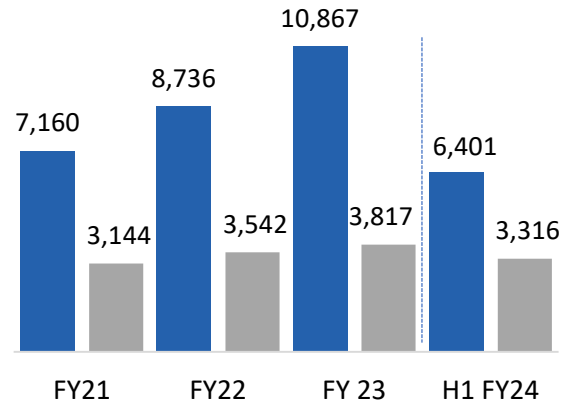
- **Strong Liquidity with healthy cash balances: ₹3,291 Cr***

Steady Operations and Robust Financials

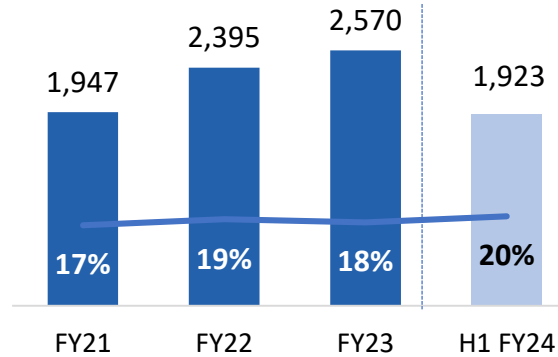
Net Generation (BUs)



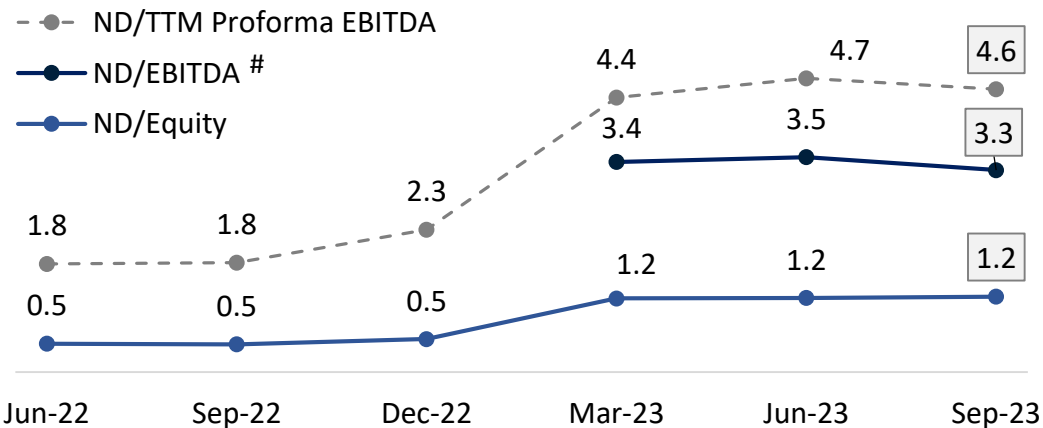
Total Income¹ and EBITDA (₹ Cr)



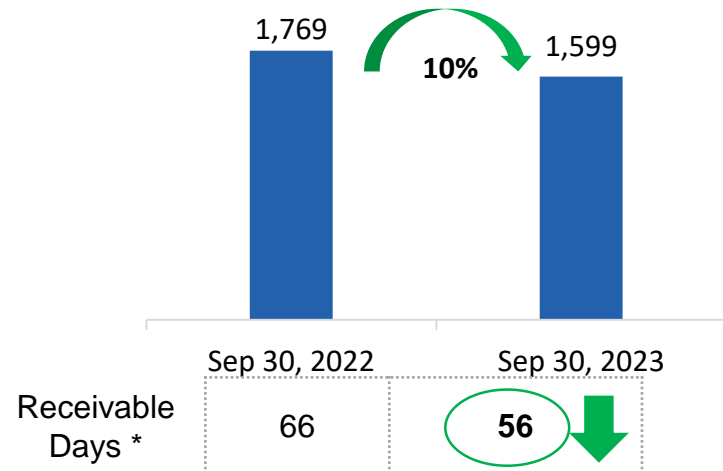
Cash PAT (₹ Cr) and Cash Returns



ND/EBITDA for Operational Projects at 3.3x



Healthy receivables days



Steady operations and robust financial

- 85% of portfolio tied-up under Long Term PPA; Remaining Avg. Life of Assets/PPA: ~25 years / ~18 years
- Track record of strong yearly cash profits and mid-teen equity returns

Financial flexibility








- Strong leverage ratio, Net Debt to operating EBITDA of 3.3x
- JSW Steel shares: 7 Cr shares held (Value as on Sept 30, 2023: ₹ 5,018 Cr)

Receivables

- All plants placed favourably in States' Merit Order Dispatch
- Payment security mechanism in force for power tied under long term PPA with discoms

1. Not comparable YoY from FY21 due to Change to Job Work Model Partially
 #ND/Proforma EBITDA Including acquired RE portfolio Debt and Excluding Debt on U/C Projects * Includes Unbilled Revenue and excluding Acquired RE Portfolio receivables

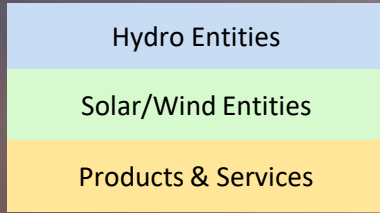
JSW Energy : Key Highlights

 Proven Execution Excellence	<ul style="list-style-type: none">✓ Superior project execution skills: Projects set-up in lowest cost & time✓ Differentiated business strategy for growth to 20 GW, driven by Renewable✓ Foraying in New Energy Platforms: Green Hydrogen, Energy Storage, Energy Products & Services
 Focus on Sustainability	<ul style="list-style-type: none">✓ Strong Focus on ESG – Leadership band with ‘A-’ score in the 2022 CDP Climate Change rating✓ Amongst the Highest rated power generation company in India by various independent ESG rating agencies✓ To be Carbon Neutral by 2050; Committed to set science based emission reduction targets (SBTi)
 Efficient O&M	<ul style="list-style-type: none">✓ Sound operating efficiency characterized by one of the lowest O&M costs in the sector✓ Global best practices & recognition in Safety: Barmer, Ratnagiri and Vijaynagar Plants awarded ‘SWORD OF HONOUR’ by British Safety Council
 Steady EBITDA and Cash accruals	<ul style="list-style-type: none">✓ 85% of total portfolio tied up with LT PPA providing ~90% EBITDA and Cashflow generation in FY23✓ Two-part tariff structure mitigating fuel and forex risk
 Healthy Receivables	<ul style="list-style-type: none">✓ Receivables days at low levels in DSO terms.✓ Favorable placement in Merit Order Despatch & diversified off-takers mitigate Receivable risk
 Strong Balance Sheet	<ul style="list-style-type: none">✓ Amongst the Strongest Balance Sheet in the sector: 4.6x, Net Debt/EBITDA; 1.2x Net Debt/Equity✓ Healthy debt metrics to be maintained while pursuing value accretive growth✓ A healthy cash balance of ₹3,291 Cr and financial flexibility with JSW Steel equity shareholding
 Low Cost of Funding	<ul style="list-style-type: none">✓ Proactive Debt Management: Weighted average cost of debt at 8.51%✓ Executed attractive refinancing and debt sizing package for Acquired RE Portfolio RE assets, cost saving of > ₹240 cr✓ Raised a US\$ 707 million green bond to refinance debt for hydro entity in May’21

JSW Energy – at a glance



JSW Energy – Broad Corporate Structure



JSW Energy Limited
9,792 MW

Standalone

Ratnagiri – 1,200 MW
Vijayanagar – 860 MW
Nandyal – 18 MW
Solar – 10MW
Total – 2,088 MW

Other subsidiaries

JSWEBL – 1,080 MW
Ind-Barath – 700 MW

JSW Neo Energy *
5,924 MW

Energy Generation Portfolio

JSW Hydro Energy Limited (1,391 MW)
(Karcham & Baspa)

JSW Energy (Kutehr) Limited (240 MW)

JSW Renew Energy Limited (810 MW SECI-IX)

JSW Renew Energy Two Limited (454 MW SECI-X)

JSW Renewable Energy (Vijayanagar) Limited (863 MW Captive)

JSW Renewable Energy (Dolvi) Limited (95 MW Captive)

Acquired RE portfolio (1,753 MW - Acquired)

JSW Renew Energy Three Limited SECI XII 300 MW

Products & Services

BESS – SECI Pilot
(500MW/1000MWh)

PSP
• LoI for 2.4 GWh
• MOUs signed for 80 GWh

Advanced high efficiency **solar module** (Awarded capacity under PLI)

Green Hydrogen (3,800 TPA) & Its Derivatives

Thermal Assets

Ratnagiri 1,200 MW



Ind Barath 700 MW



Barmer 1,080 MW



Vijayanagar 860 MW



Thermal Assets | Generating Robust Cashflows

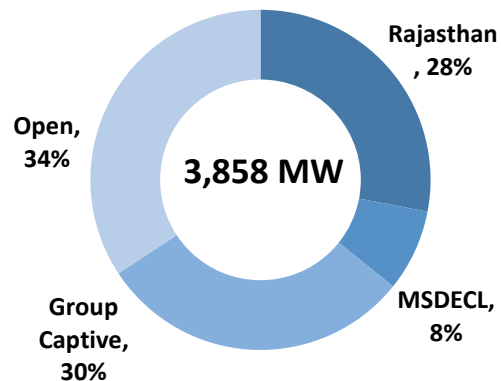
Overview

Total Thermal Capacity
3,858 MW

Operational Capacity
3,158 MW

Under Construction
Ind-Barath
700 MW

Offtaker Profile



Installed Capacity

PPA tied

Fuel Type

Net Generation (Mus) Q2 FY24

LT

Total

PLF/ (Deemed PLF)

LT

Total

Operational Assets - 3,158* MW



Ratnagiri

1,200 MW

1,100MW

Imported Coal

1,478 MUs (14% YoY)

1,752 MUs (34% YoY)

67%/(88%)

72%/(91%)



Barmer

1,080 MW

1,080 MW

Lignite

1,593 MUs (-4% YoY)

1,593 MUs (-4% YoY)

75%/(78%)

75%/(78%)



Vijayanagar

860 MW

338 MW

Imported Coal

510 MUs (-18% YoY)

900 MUs (22% YoY)

80%/(86%)

51%/(53%)

Under Construction



Ind - Barath

700 MW

Merchant

Domestic Coal

Located in coal belt

Easy access to water

Commissioning
Unit 1 – Q3 FY24
Unit 2 – Q4 FY24

~80% of Installed Thermal Capacity Tied-up under Long-Term PPA

Renewable Assets



Renewable Assets | Presence across all modes of generation

Total 5,922 MW

Offtaker Profile

Operational Assets – 3,613 MW

Under Construction – 2,321 MW

Expected to be operational by CY 2024

3,628 MW
61%

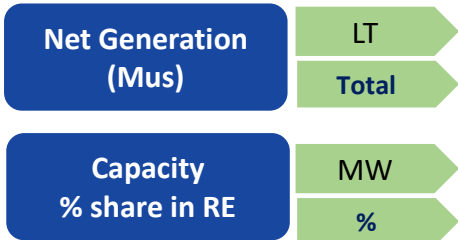
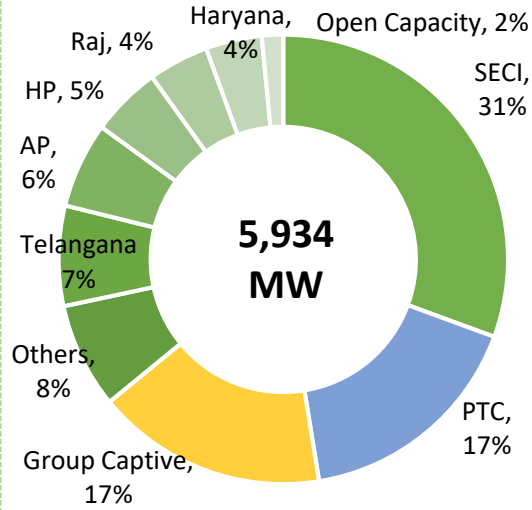
Wind

1,631 MW
27%

Hydro

675 MW
11%

Solar



HYDRO



- Karcham Wangtoo (1,091)
- Baspa (300)

2,694 MU
2,766 MU

1,391 MW
23.4%

WIND



- Acquired RE Wind (1,331)
- SECI X (216)

1,315 MU
1,315 MU

1,547 MW
26.1%

SOLAR



- Vijayanagar Captive (225)
- Acquired RE Solar (422)
- Others (28)

288 MU
288 MU

675 MW
11.4%

HYDRO



- Kutehr (240)

240 MU

240 MW
4.0%

WIND



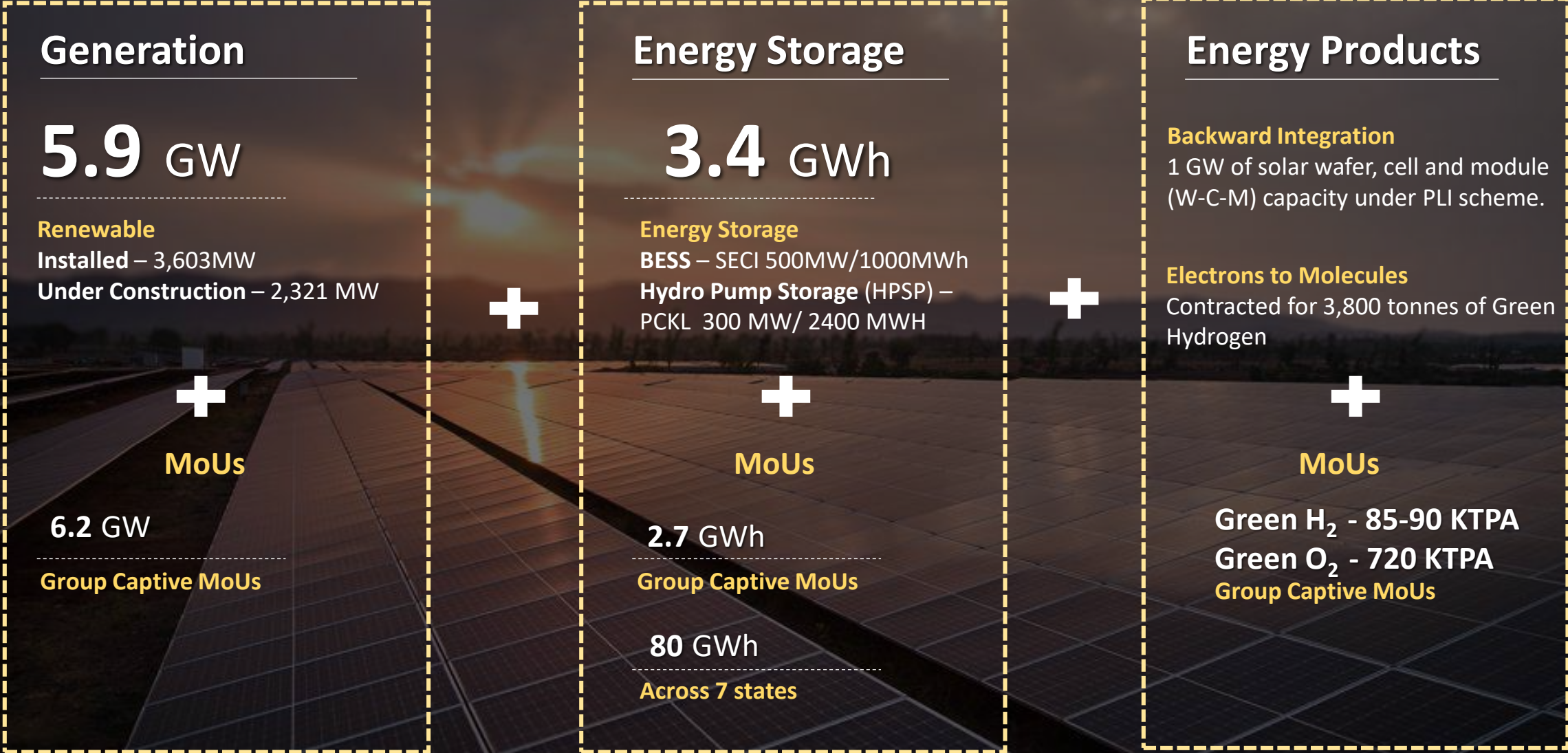
- SECI IX (810)
- SECI X (234)
- Captive JSW Steel (733)
- SECI XII (300)

2,081 MU

2,081 MW
35.1%

All under construction projects are tied-up with long term PPA

JSW NEO Energy – At a Glance



Generation

5.9 GW

Renewable
Installed – 3,603MW
Under Construction – 2,321 MW



MoUs

6.2 GW

Group Captive MoUs

Energy Storage

3.4 GWh

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



MoUs

2.7 GWh

Group Captive MoUs

80 GWh

Across 7 states

Energy Products

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

Electrons to Molecules
Contracted for 3,800 tonnes of Green Hydrogen

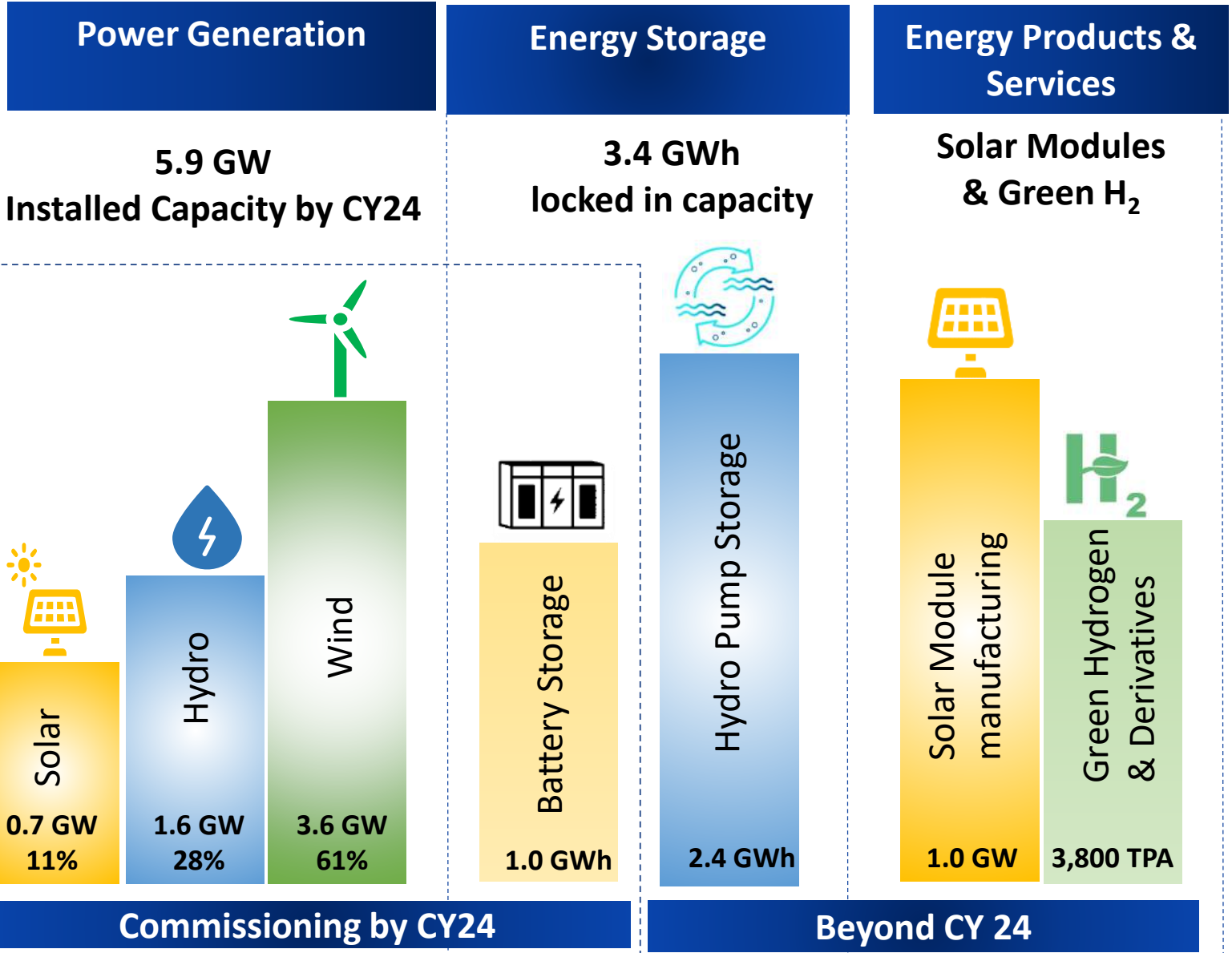


MoUs

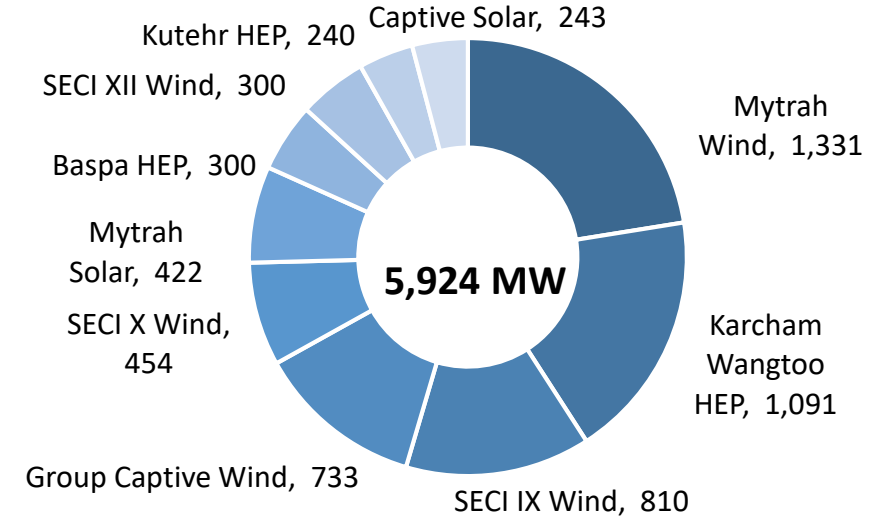
Green H₂ - 85-90 KTPA
Green O₂ - 720 KTPA
Group Captive MoUs

JSW Neo – Presence across the value chain

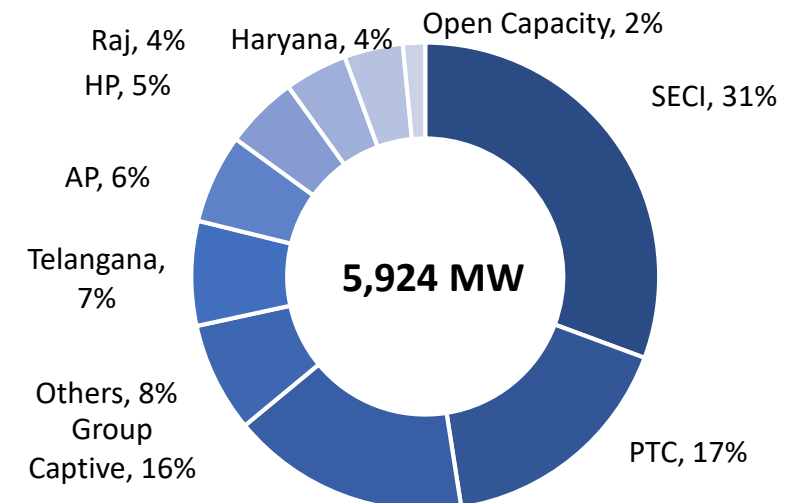
Well placed to achieve 10 GW of generation capacity ahead of stated timeline of 2025 with foray into New Age Businesses



JSW NEO - Assets

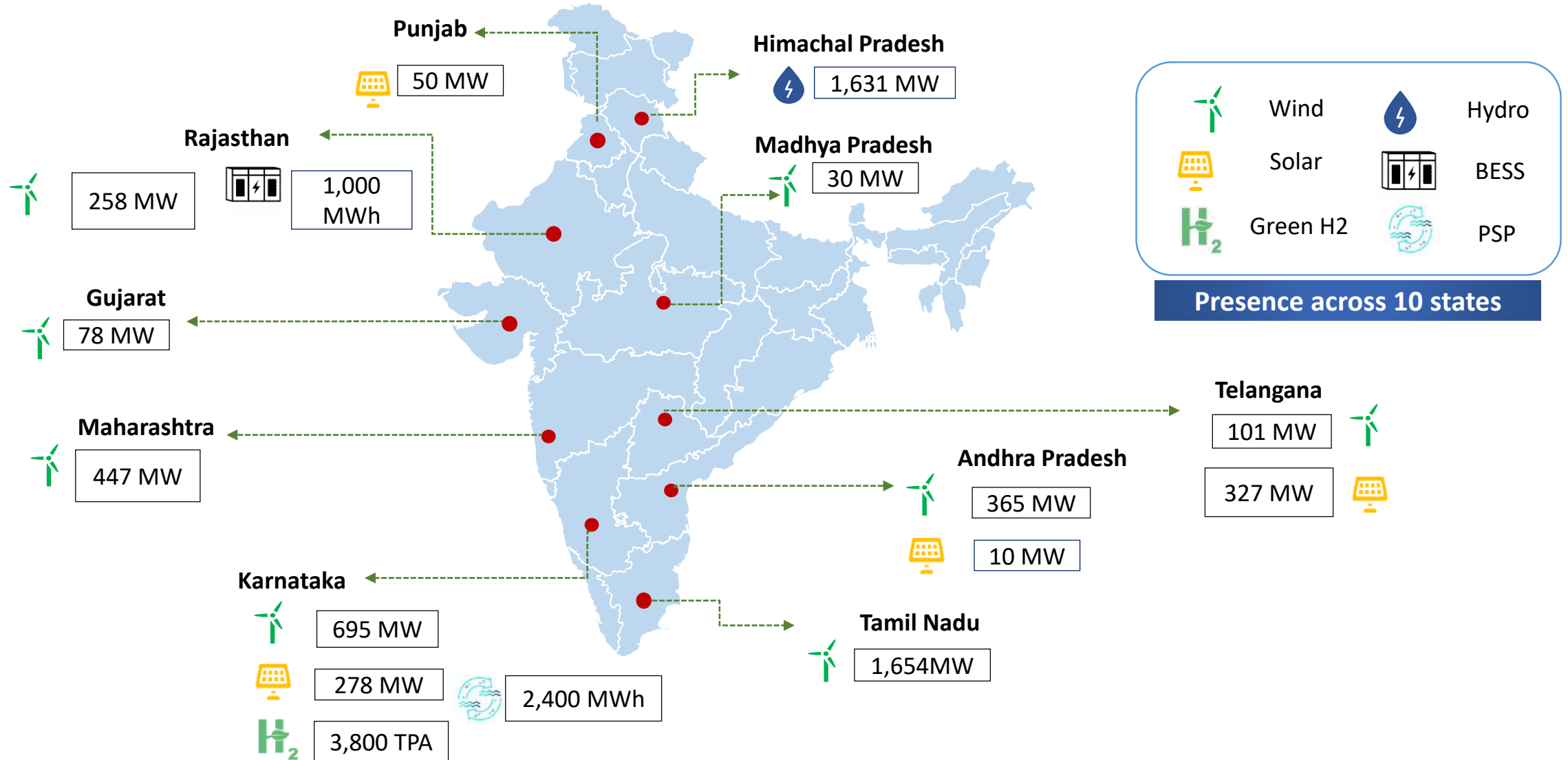


JSW NEO – PPA Profile



Developed a Pan India Footprint of Diverse Asset Base

Operational Capacity by CY 24 (5,924 MW)



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

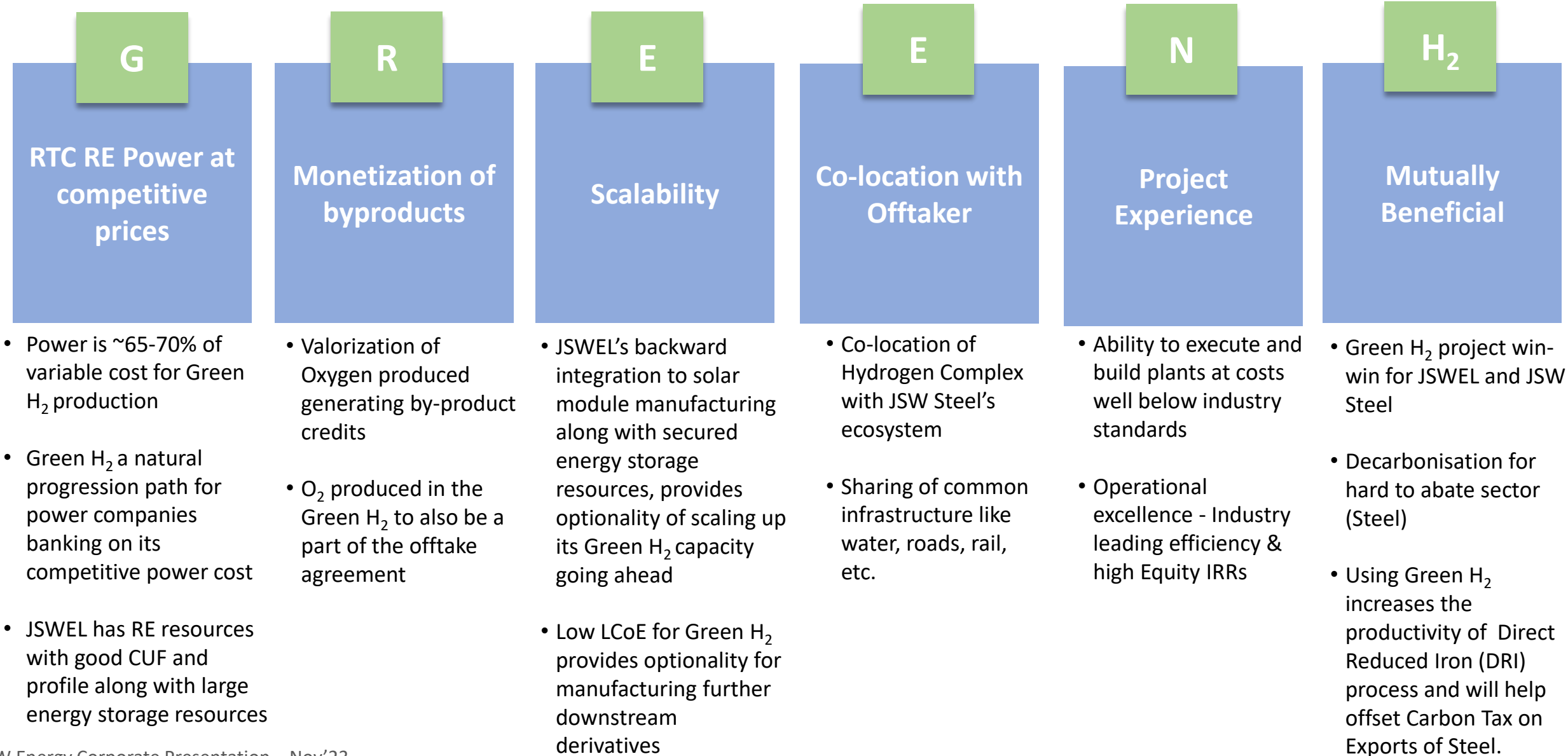
Particulars	SECI (BESS)
Tender capacity	500 MW / 1000 MWh
No. of hours backup	2 hours
Purchase agreement tenure	12 years
RTE	Min 85%
No of cycles per day	2

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 ~80GWhr PSP/ 12.3 GW

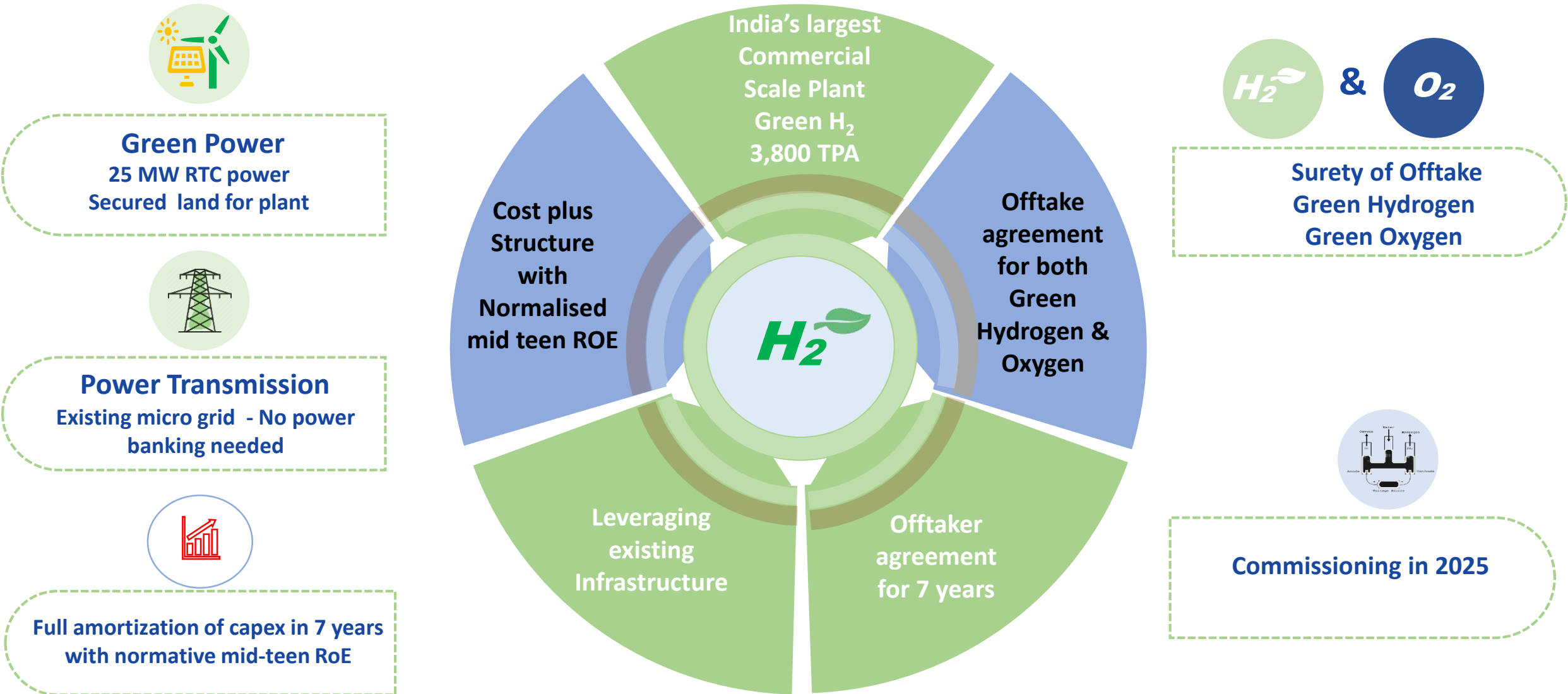
State	Capacity (GW)
Karnataka	0.4
Maharashtra	3.0
Uttar Pradesh	1.7
Rajasthan	1.2
Andhra Pradesh	1.5
Telangana	1.5
Uttarakhand	3.0
Resources Secured	12.3

Green Hydrogen Opportunity – JSW Energy’s Unique Positioning



Contracted India's Largest Commercial Scale Green Hydrogen Project

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



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

1 GW under PLI



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

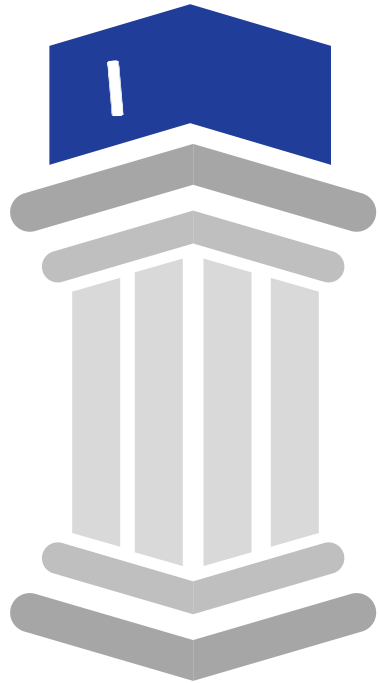
Eligible for ~₹ 320 Cr benefits under PLI scheme. Additional Incentives from State Government are under negotiation

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

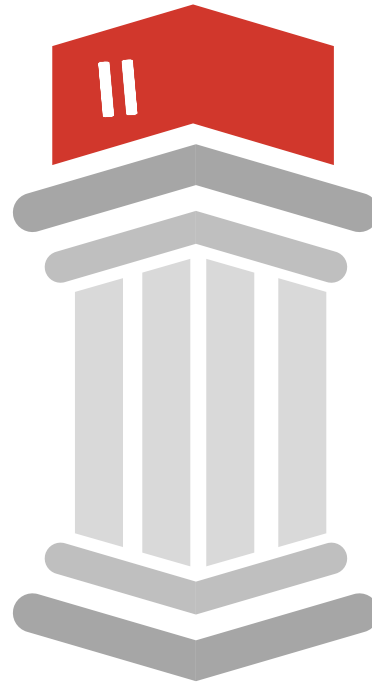
Value Accretive Business Model



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



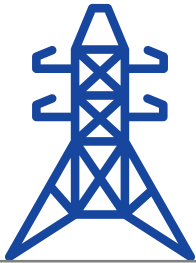
Energy Storage: Hydro PSP and BESS



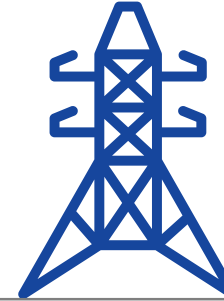
Value Accretive M&A opportunities

Growth Framework leading to industry-leading returns

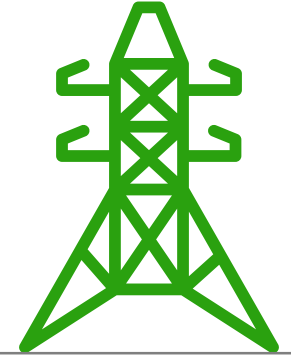
Single digit to lower teen IRR%



Mid-teen IRR %



High-teen Returns Realized



Equity IRRs

Current market returns due to highly competitive tariffs¹

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

¹- Company market analysis; COD: Commercial operations date; IRR: Internal Rate of Return



JSW Energy

Investor Relations Contact:

ir.jswenergy@jsw.in

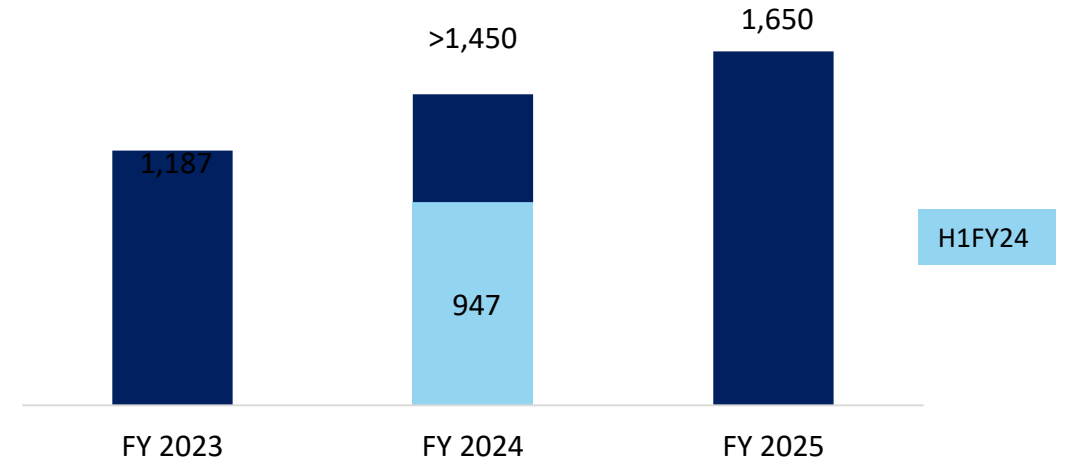
ESG Data Profile: [Link](#)

Appendix

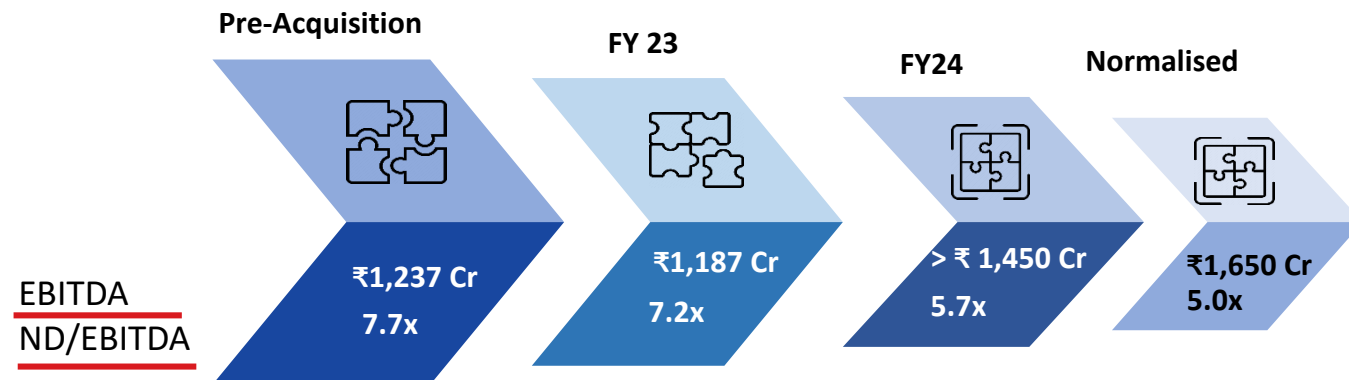


Acquired RE Portfolio Progress on Track

Acquired RE Assets EBITDA



Acquired RE Portfolio Net Debt/EBITDA



Acquired RE Portfolio

Asset Optimisation & Performance Improvement progressing well



Asset Optimisation & Performance Improvement Plan - Promising Outcome Witnessed



WIND

Action Plan

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



Outcome

Restoration of WTGs

All WTGs which were stopped before acquisition have been restored
Maniyachi site (252 MW) fully operational and contributed in Q2 FY24

Machine availability

WTGs restoration and spare availability resulted in improved Machine Availability (MA). Achieved highest 98.5% MA in a day.
MA in H1 FY24 improved to 95.5% as compared to H1 FY23 (87.5%)

Focused intervention on O&M

In house spares repair and inventory management initiated, to drive quick turnaround of repair and maintenance activity
Capability building for self O&M of wind farms- Initiated for 764 MW

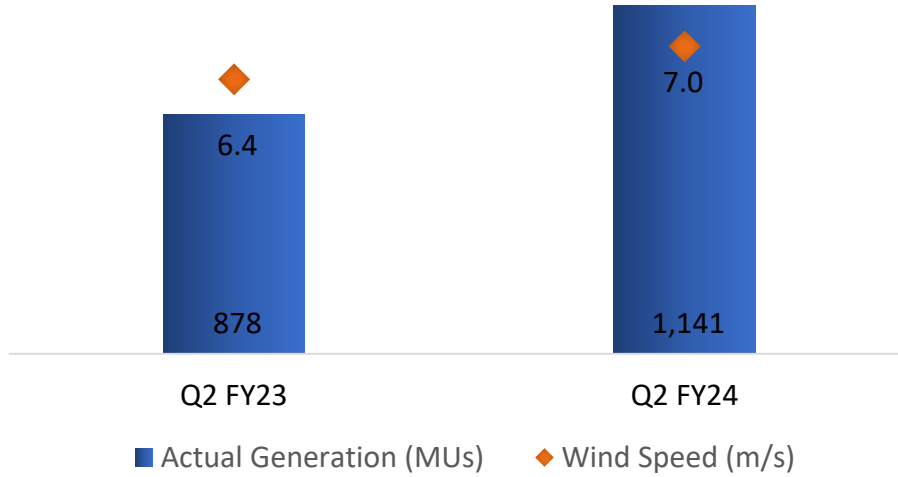
Equipments

All spares and material ordered, 90% has reached site.
Balance of plant strengthening: Material and spares for 33 KV line, PSS and USS started receiving at plants.

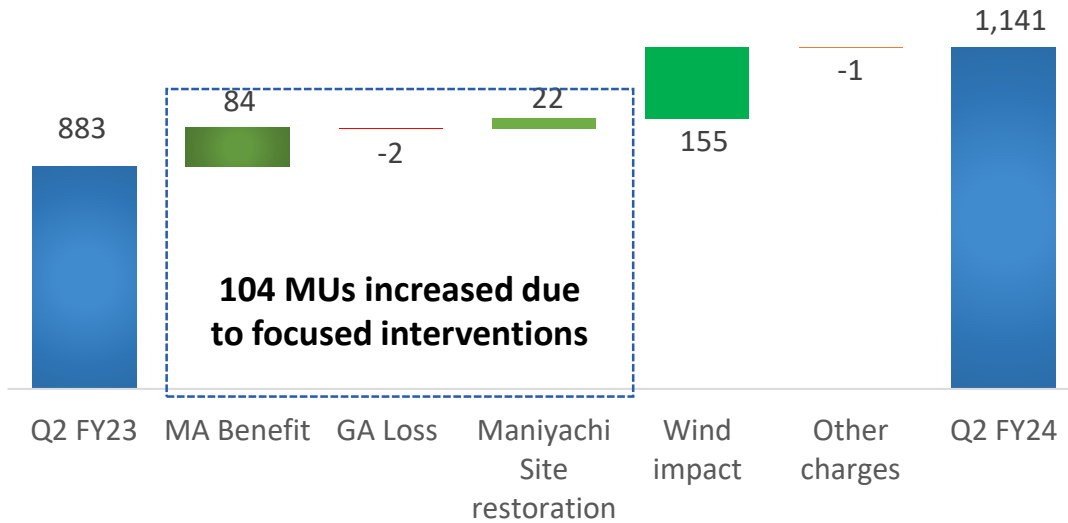
Expected generation improvement by ~700 MUs

Acquired RE Wind - progress on track

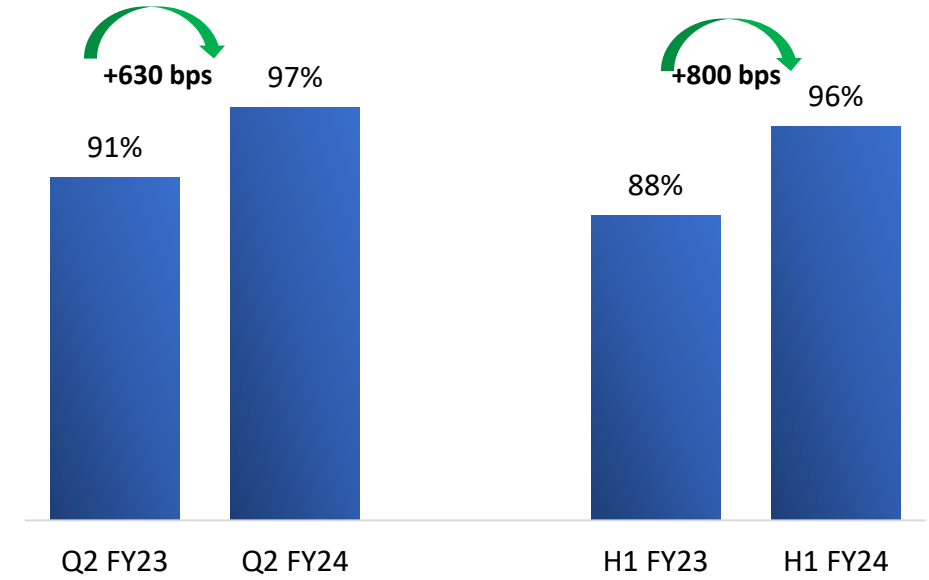
Actual Generation vs Wind Speed



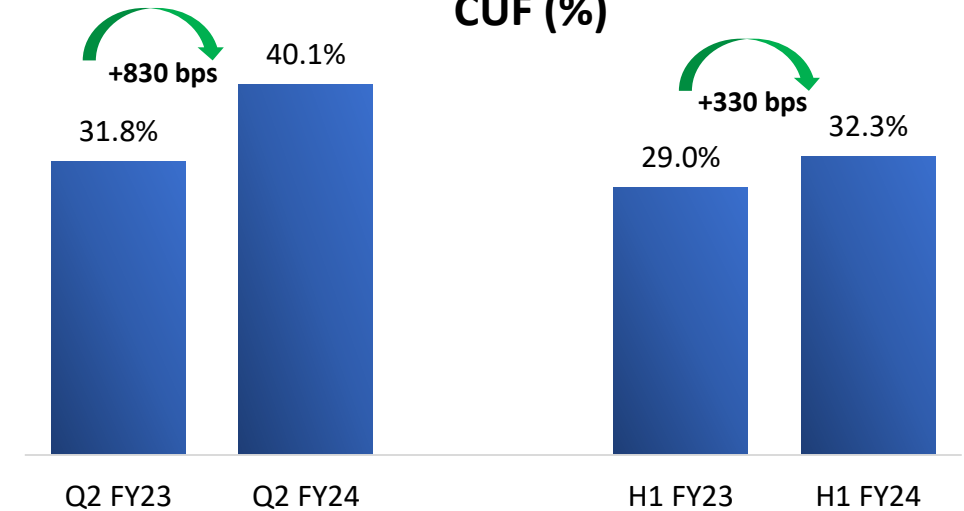
Wind Generation (MUs)



Machine Availability (%)



CUF (%)



Asset Optimisation & Performance Improvement Plan - Promising Outcome Witnessed



SOLAR

Action Plan

- Improved Performance Ratio (PR) to add ~12 MUs, driven by:
 - O&M SOP implementation
 - Spares Management
 - Improve tracker availability
 - DC side Capacity augmentation (38 MW) to add ~20 MU's
- ~45 MUs improvement**



Operations & Maintenance

O&M SOP implemented and monitored on regular basis
Spares are proactively planned and spares backup created accordingly

O&M and Performance Ratio

Performance parameters are re-negotiated with O&M vendor
Plant performance parameters linked to performance ratio

Tracker availability

Tracker availability improved to 99% in this quarter

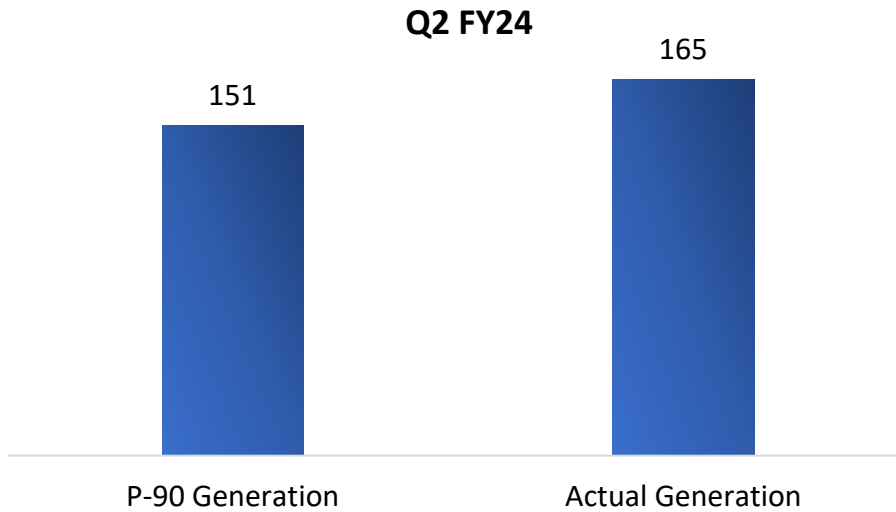
Augmentation & Restoration (38 MW DC)

Order for modules is placed & delivery started, Module erection work under progress.

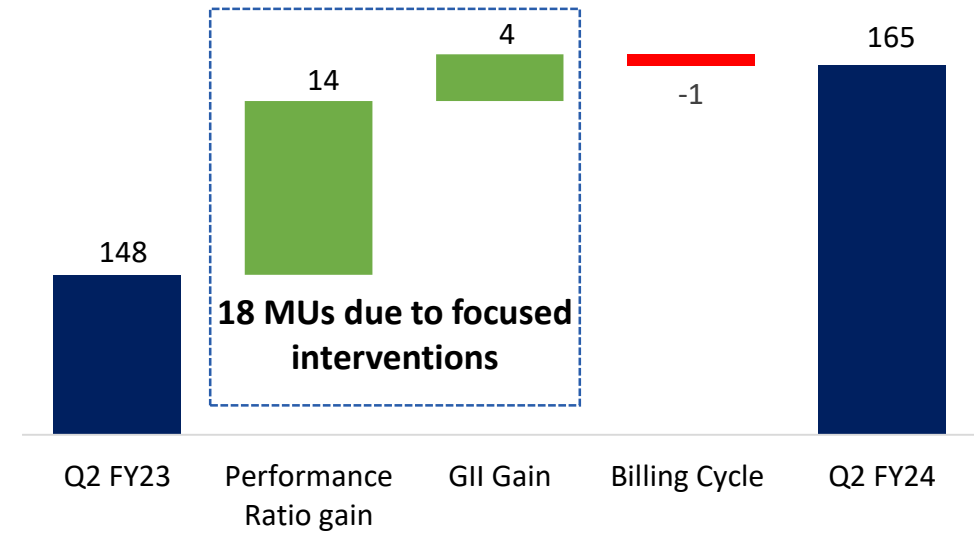
Expected generation improvement by ~45 MUs

Acquired RE Solar - progress on track

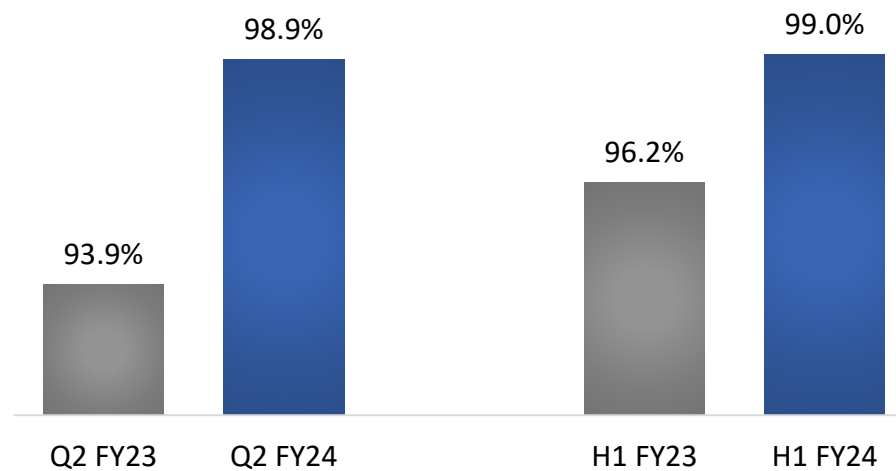
P-90 vs Actual Generation (MUs)



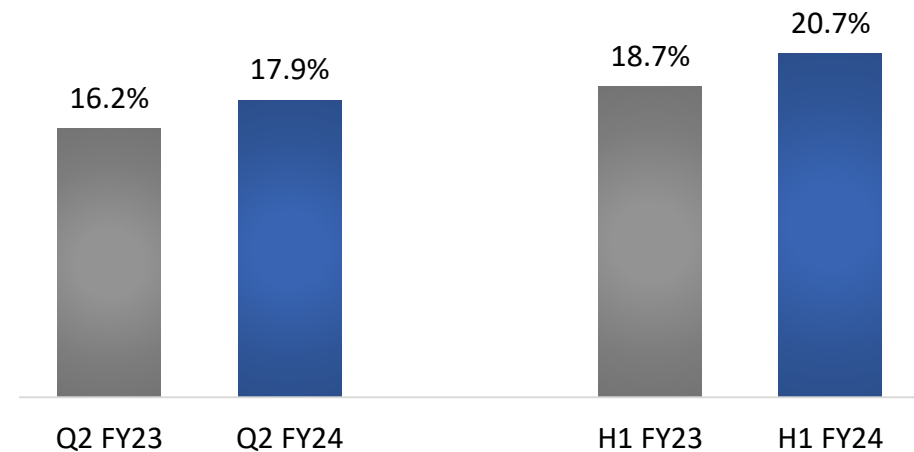
Solar Generation (MUs)



Plant Availability (%)

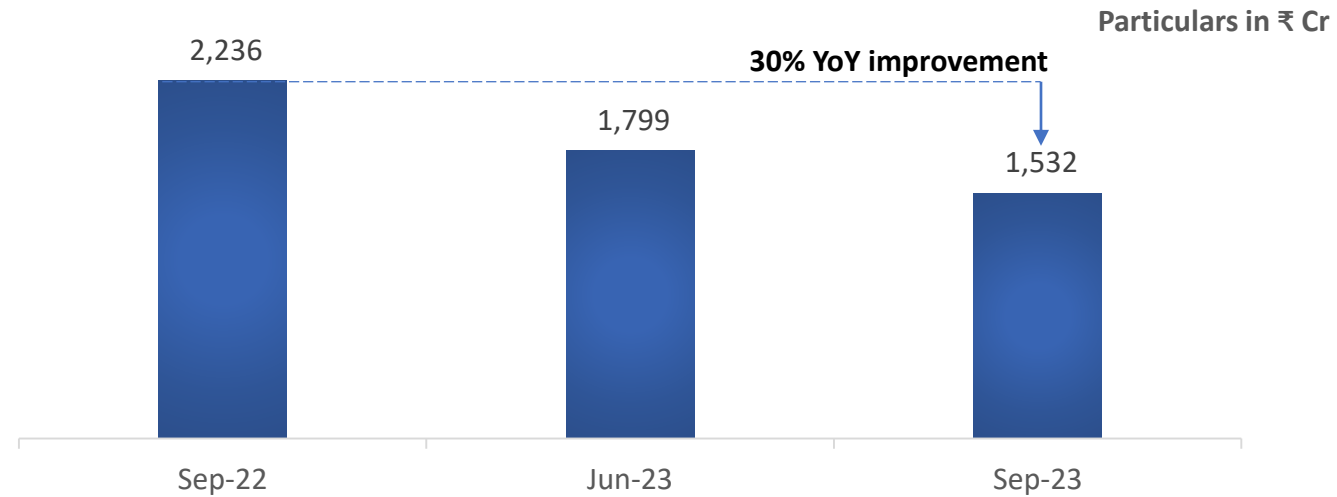


CUF (%)

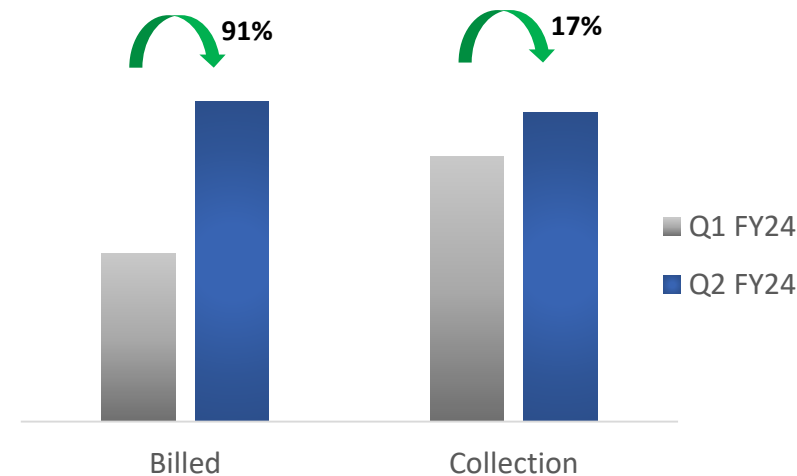


Receivables Cycle Improving

Strong collection in Acquired RE Portfolio's Receivables



Focused O&M Interventions leading to strong billing/collection growth



Operating efficiency reflecting in strong generation and billing growth

Continued focus on collection efficiency supports further reduction in the receivables

Optimise Receivables Cycle to Healthy Levels within 12 months

Under Construction Projects



Acquired RE Portfolio Solar Plant (Hungund, Karnataka)



Wind Projects (SECI IX,X, XII and Group Captive)

- 216 MW commissioned by end of Q2 FY24
- Expected commissioning by CY 2024



Tunneling & Concreting

- Completed ~ 99.4% (21 km) tunneling work (up from ~ 95.9 % in Q1)
- Power house and control room concreting in progress (55% completed)

Electro-mechanical works

- Spiral Case erection work of all units completed

Concreting Barrage

- Completed ~76 % of Concreting of Barrage
- Erection of Barrage gates to start



Mechanical

- Boiler light up work completed
- Coal and ash handling work in progress

Electrical Works

- Transmission tower foundation, erection and stringing work in progress
- Switchyard overhauling work started