



Q4 and FY23 Results Presentation

May 23, 2023

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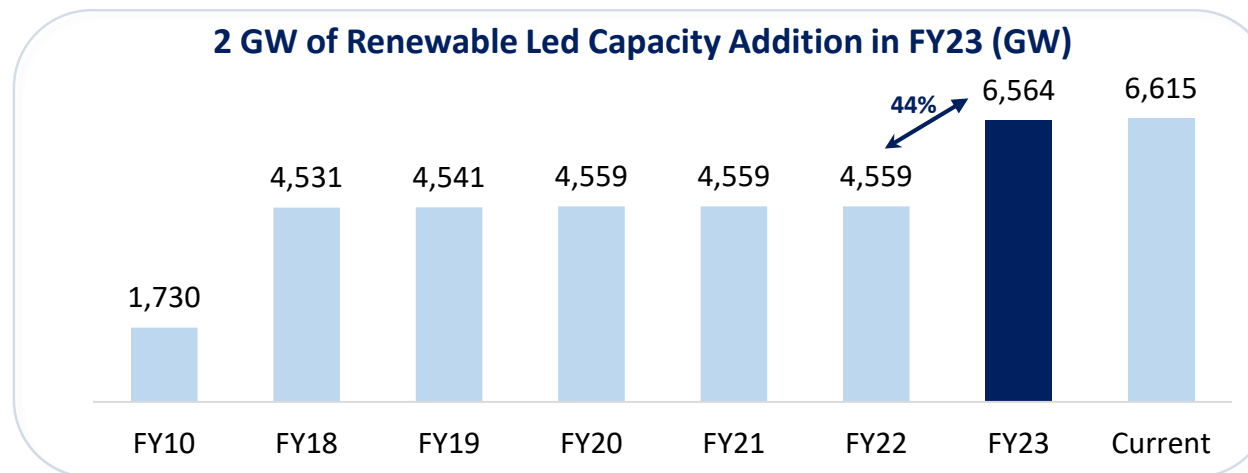
FY2023 – A Year of Delivering Promises



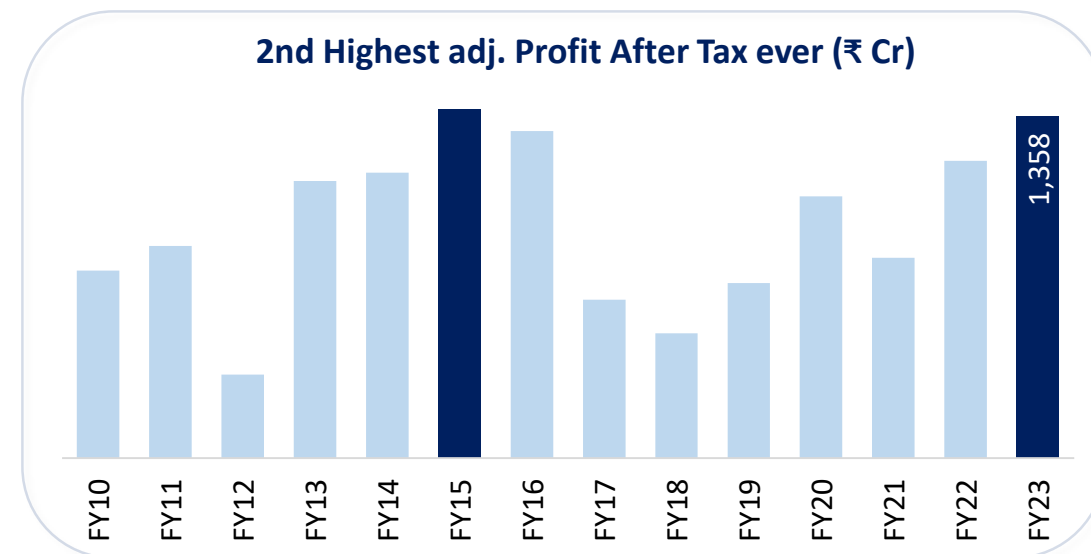
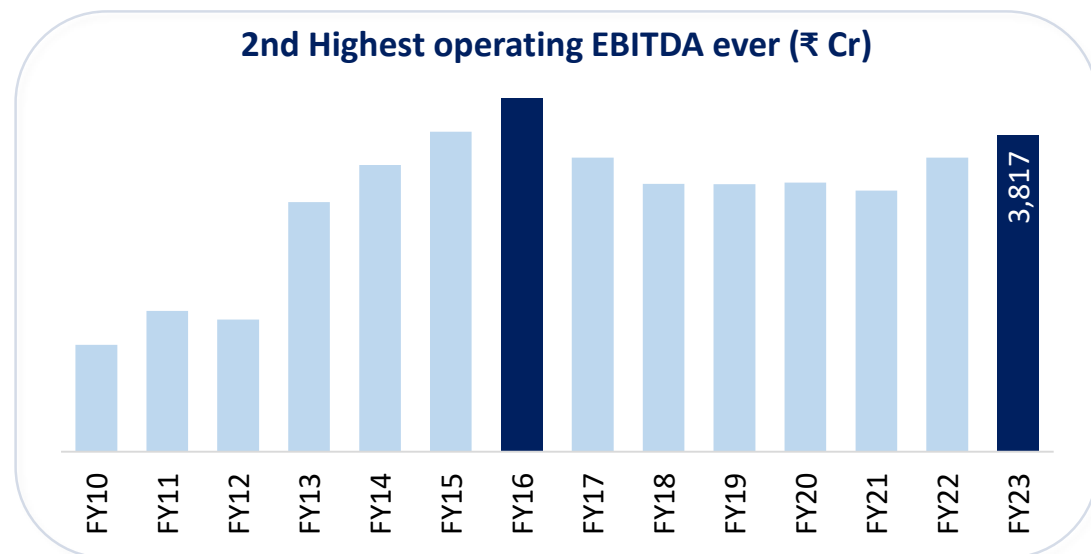
- ✓ Operating Capacity Enhanced by 44% (~2GW) in FY23
- ✓ 2nd highest Operating EBITDA and Adjusted PAT ever
- ✓ Won the largest single location BESS project of 1GWh
- ✓ Won Hydro Pump Storage project of 2.4GWh
- ✓ Contracted India's largest commercial scale Green H₂
- ✓ Backward Integration to Solar Module via PLI

Delivering Sustainable Growth – Resilient Business Model

Increased capacity by
~2GW (44%) YoY



2nd highest operating EBITDA and adjusted PAT ever





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)	11,934
Net Working Capital *(B)	1,403
Enterprise Value including Net Working Capital (A-B)	10,531
Normalised EBITDA#	~1,650
Normalised EV/EBITDA	~6.4x

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

Asset Optimisation & Performance Improvement Plan underway

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



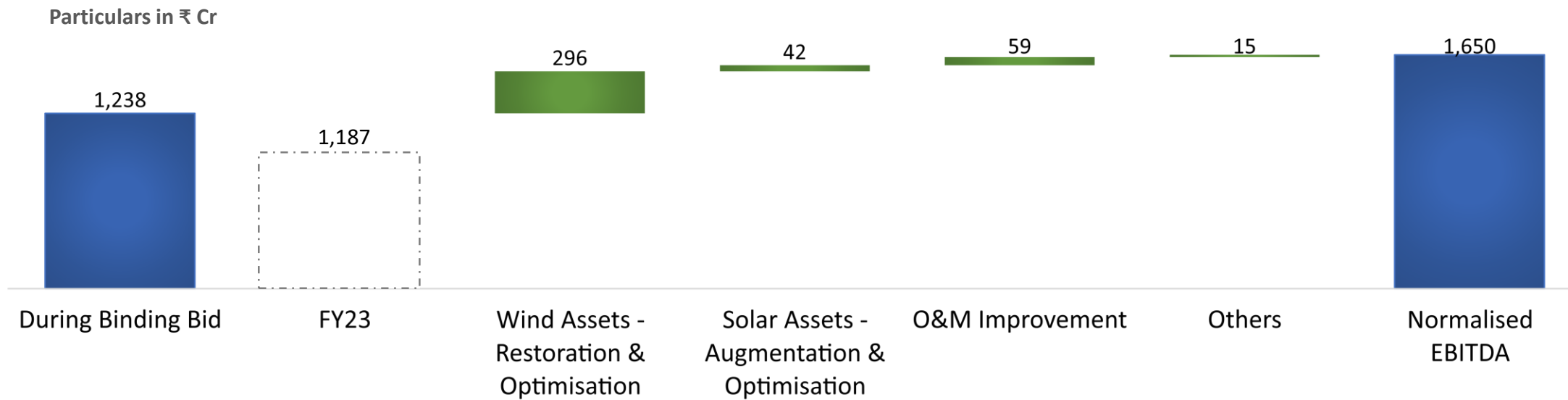
Action Plan

- 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.

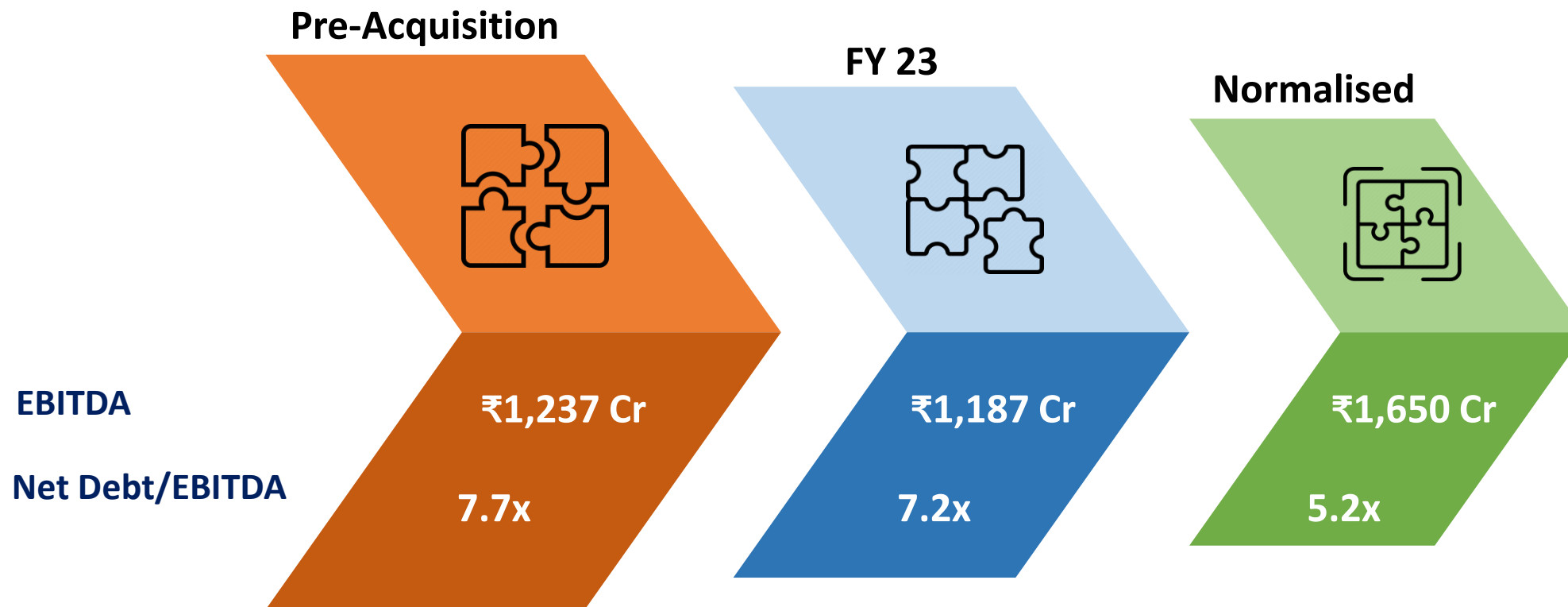
SPV.1. Process Completed in April 2023

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

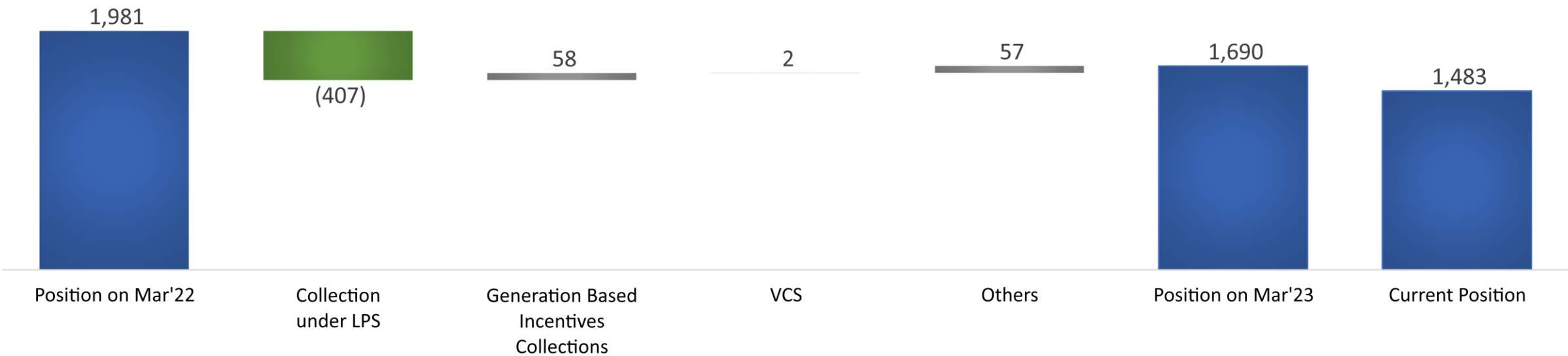
Mytrah – Underlying Normalised Net Debt/EBITDA at 5.2x



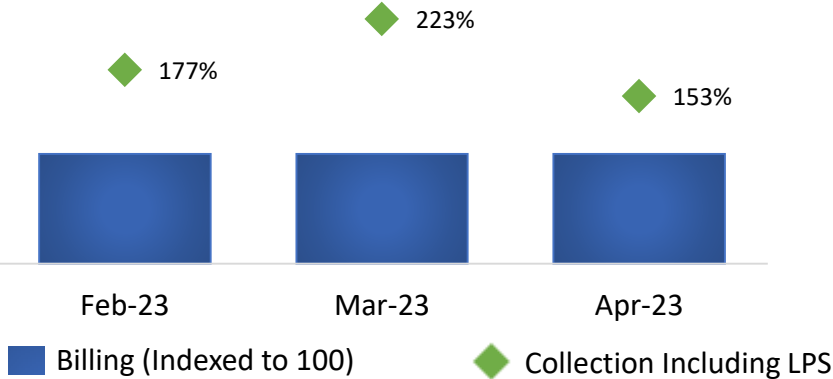
Receivables Cycle Improving – Focused Collection Efficiency in Play

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



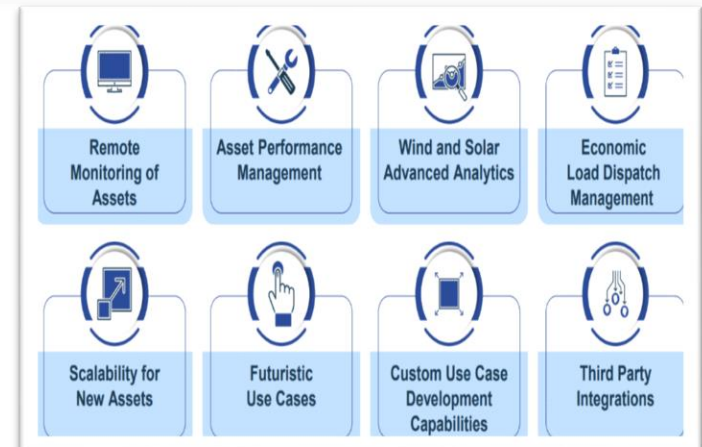
Safety & Sustainability

- 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



Ind-Barath 700 MW – Revival On Track – Commissioning in FY24

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 ~72GW hr 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
Resources Secured		10.8

Green Hydrogen Opportunity – JSW Energy’s Unique Positioning

G

RTC RE Power at competitive prices

- Power is ~65-70% of variable cost for Green H₂ production
- Green H₂ 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
- O₂ produced in the Green H₂ 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 H₂ capacity going ahead
- Low LCoE for Green H₂ 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

H₂

Mutually Beneficial

- Green H₂ project win-win for JSWEL and JSW Steel
- Decarbonisation for hard to abate sector (Steel)
- Using Green H₂ 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



Green Power

25 MW RTC power
Secured land for plant

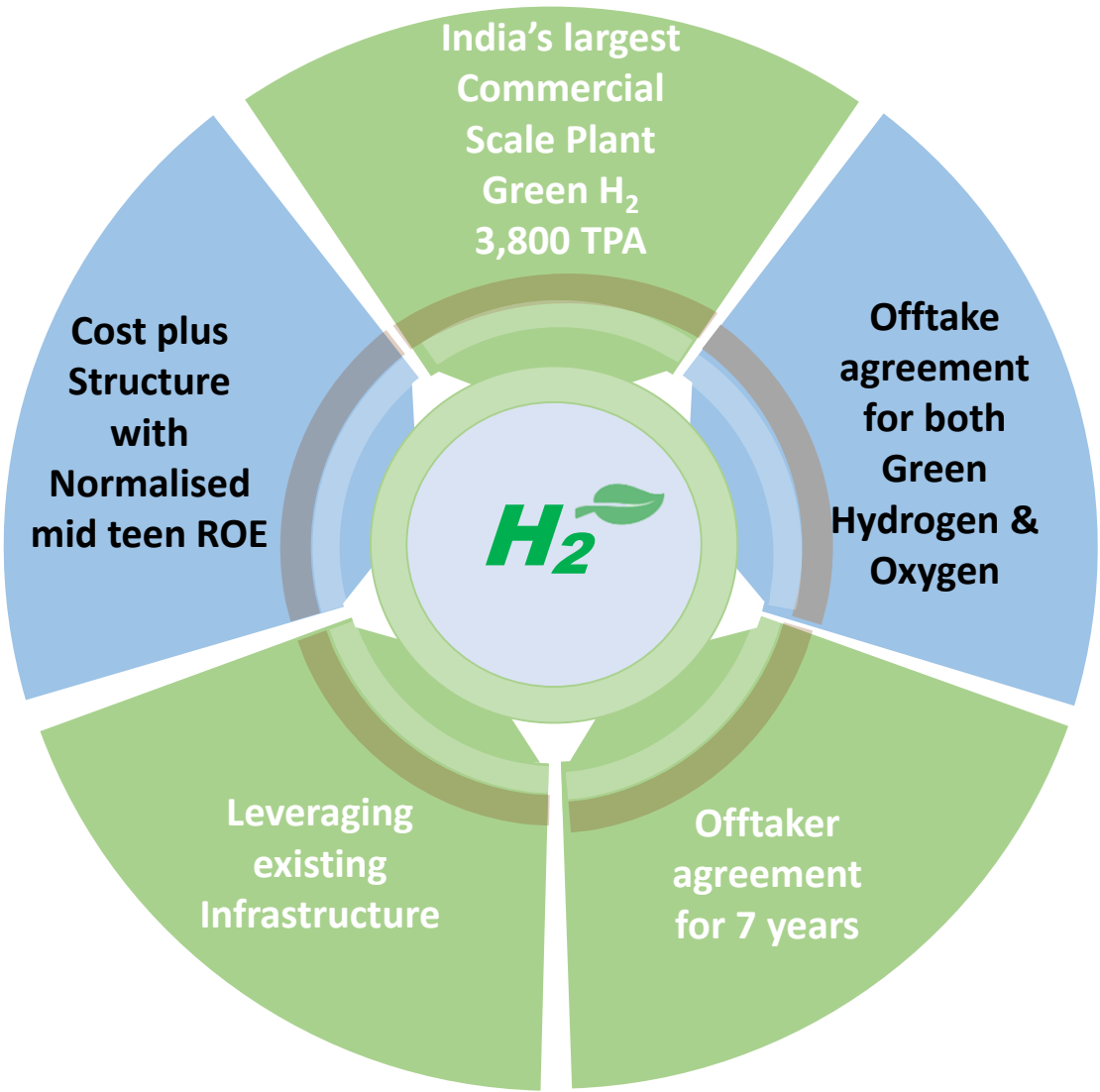


Power Transmission

Existing micro grid - No power
banking needed



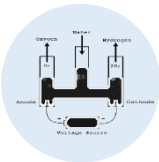
Full amortization of capex in 7 years
with normative mid-teen RoE



&



Surety of Offtake
Green Hydrogen
Green Oxygen



Commissioning in 18-24
months

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

Solar Module Manufacturing – Supply Chain De-risking

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

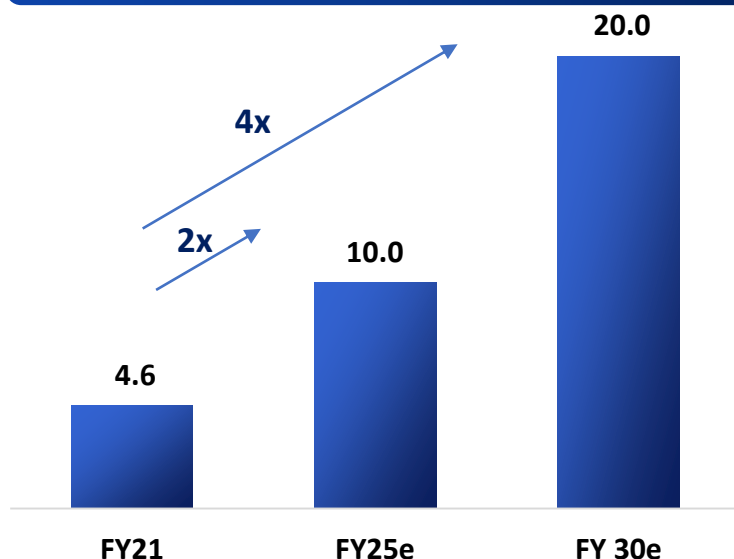
Capacity to be operational by April 2025

Capital expenditure of ~₹ 1,600 Cr

2030 Road Map for Integrated and Sustainable Growth

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

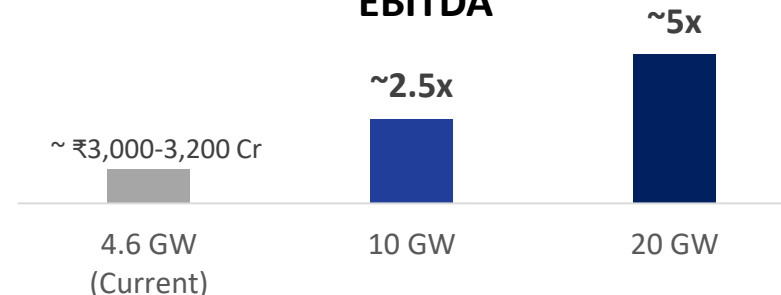
- Strong Balance Sheet
- Healthy Internal Accruals
- No compromise on returns

Financial Projections in 2021

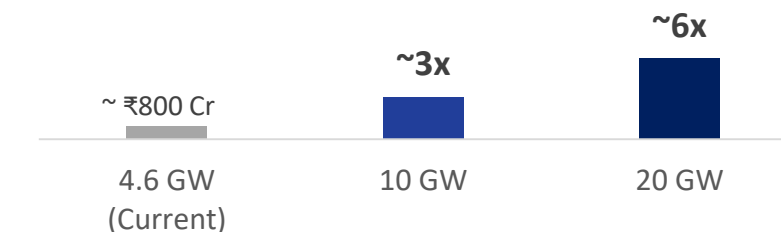
20% CAGR
(FY21-30)

22% CAGR
(FY21-30)

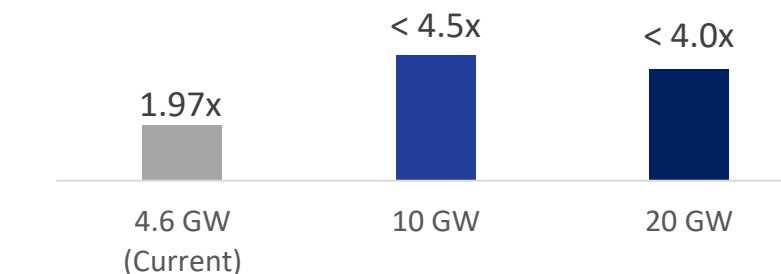
EBITDA



PAT



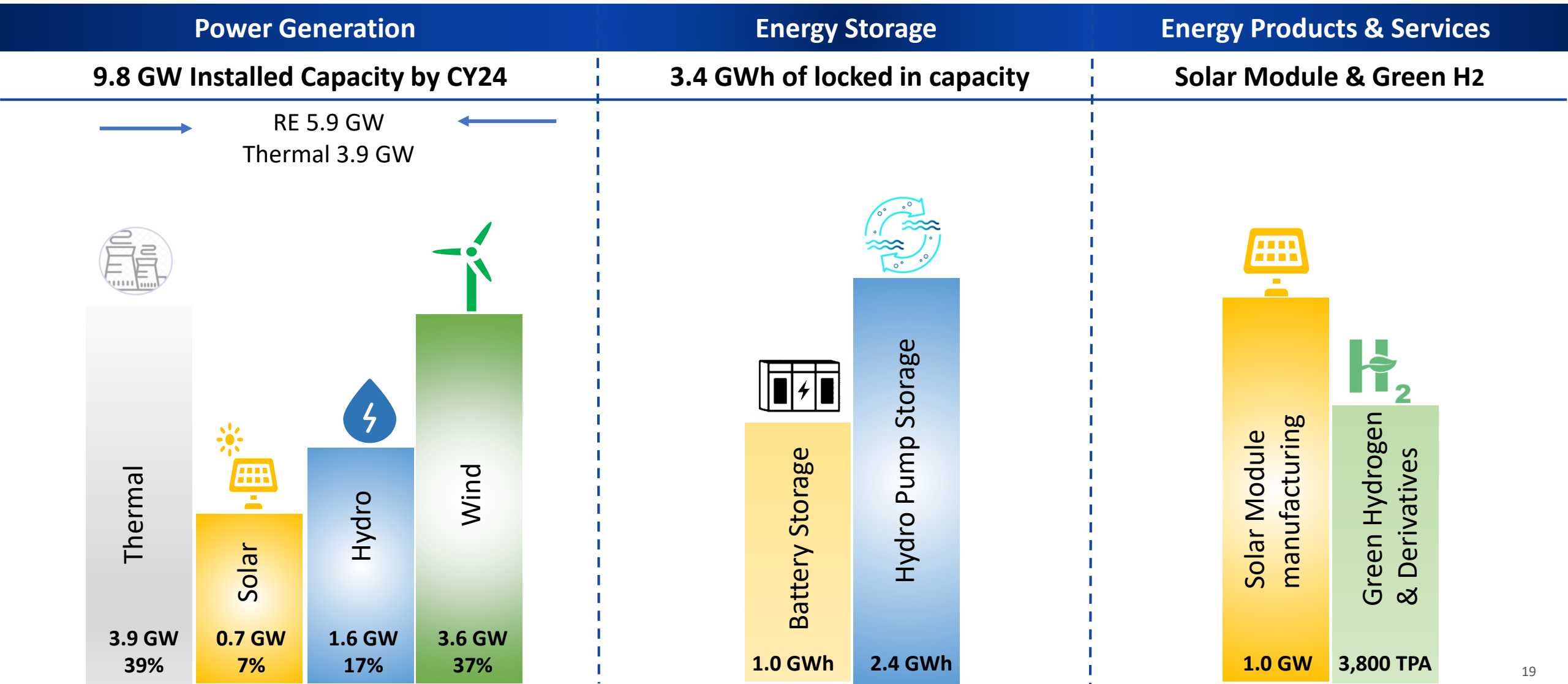
Net Debt/EBITDA



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

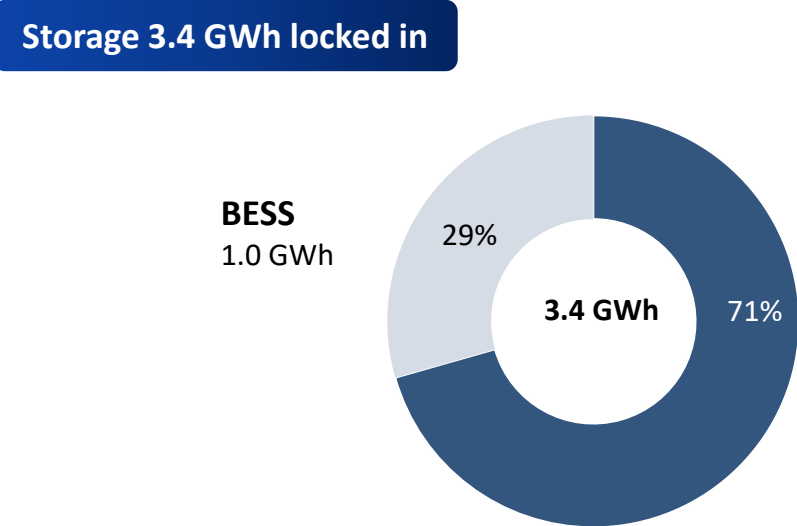
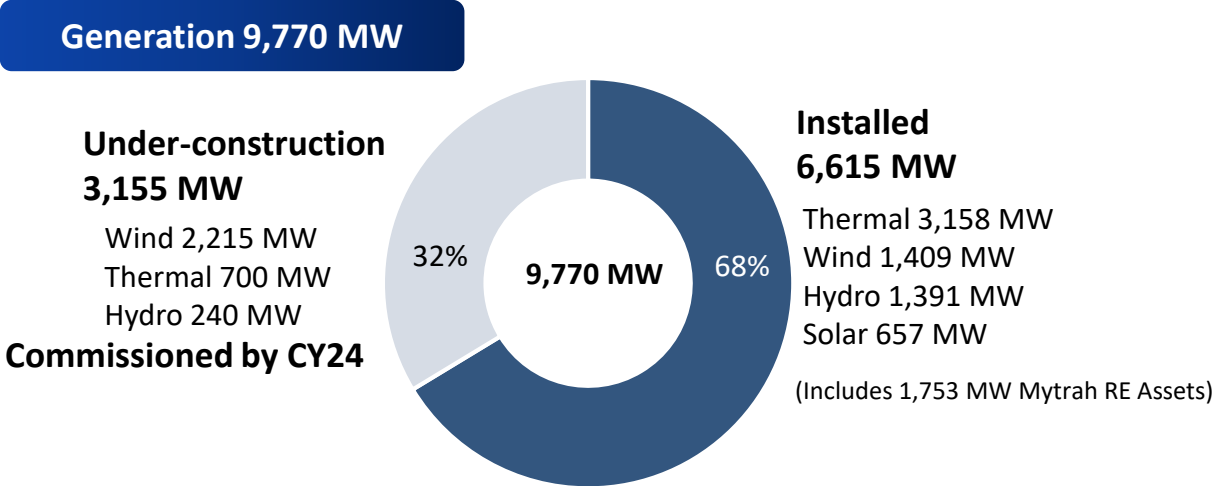
Robust Delivery - Outperformed and Broad-Based our 2025 Milestone

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

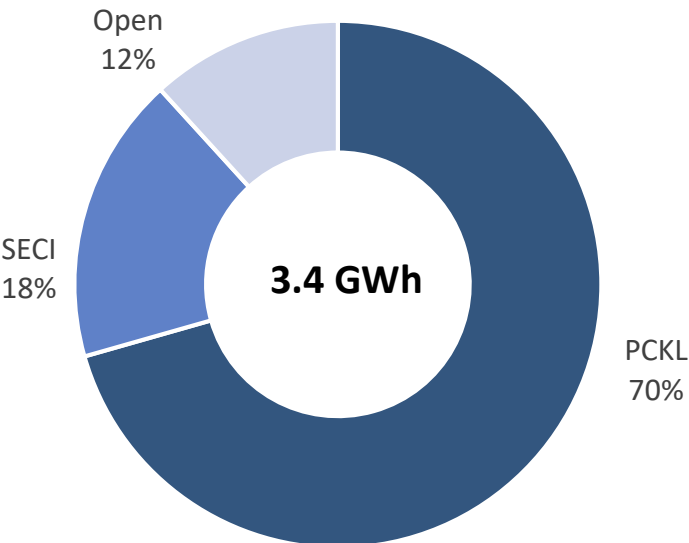
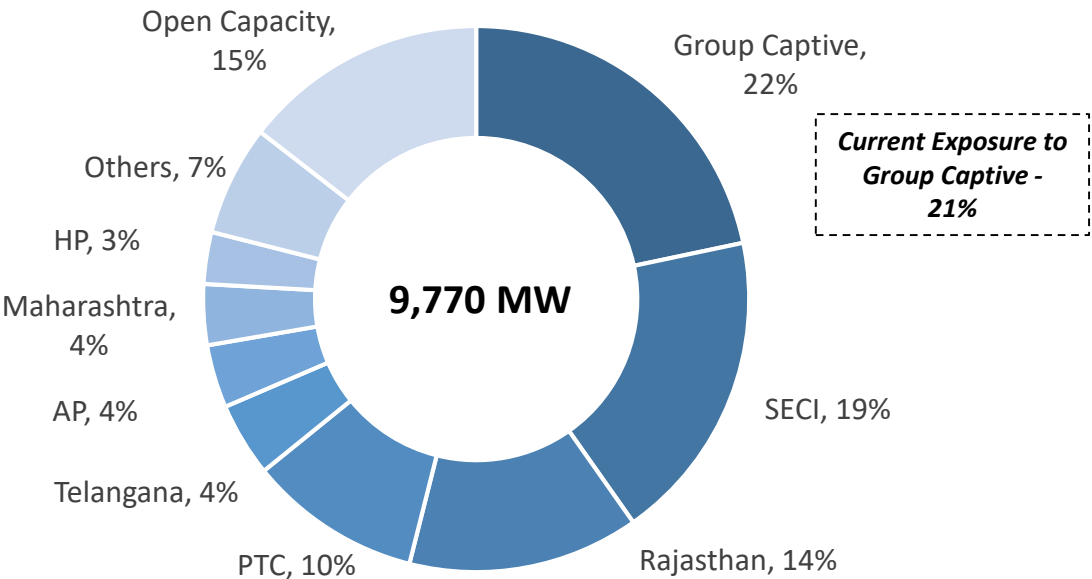


Well Diversified Portfolio – Focused on Maximising Cash Returns

Capacity Breakdown

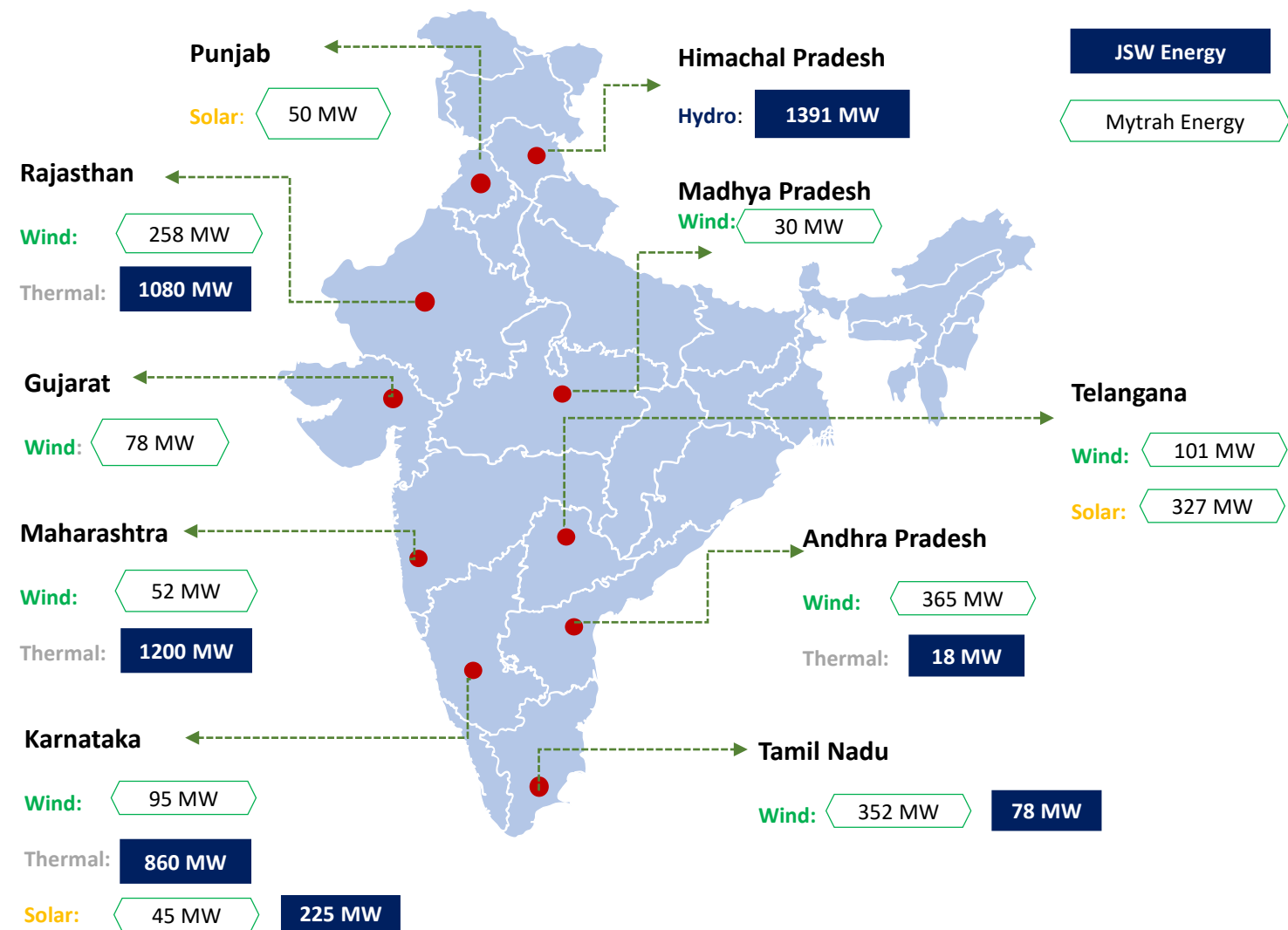


Diversified Offtakers



Developed a Pan India Footprint of Operating Locations

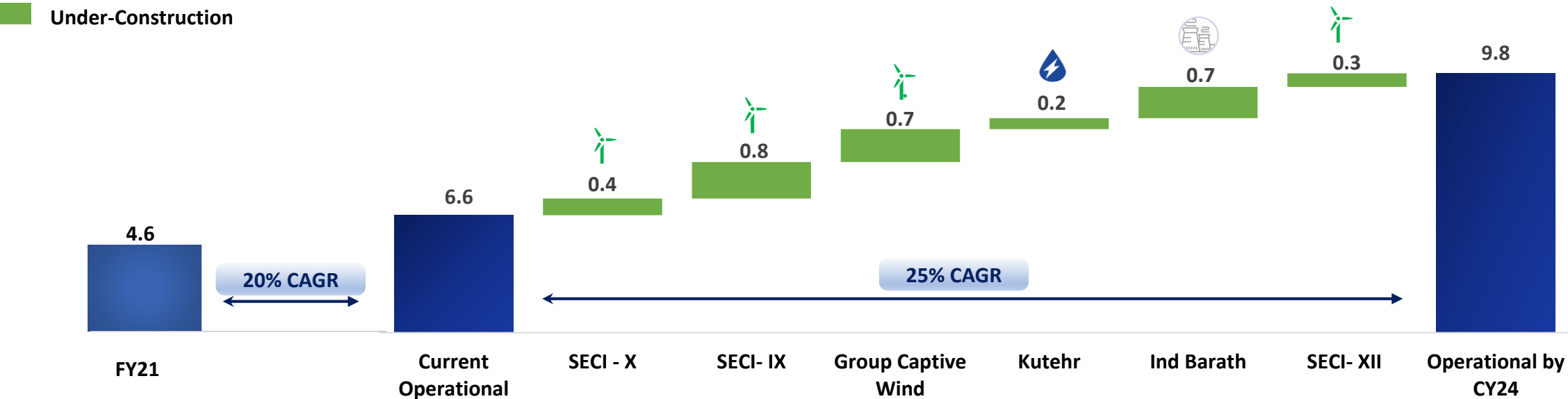
Installed Capacity by Location (6,615 MW)



• Map of India representation – scaling may not be accurate

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

Under Construction 3.2 GW, to be Commissioned by CY24



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
SECI XII (300)	Mar-25	25- year; SECI	
Ind-Barath (700)	FY24	-	Total: ~₹ 2,700 Cr

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

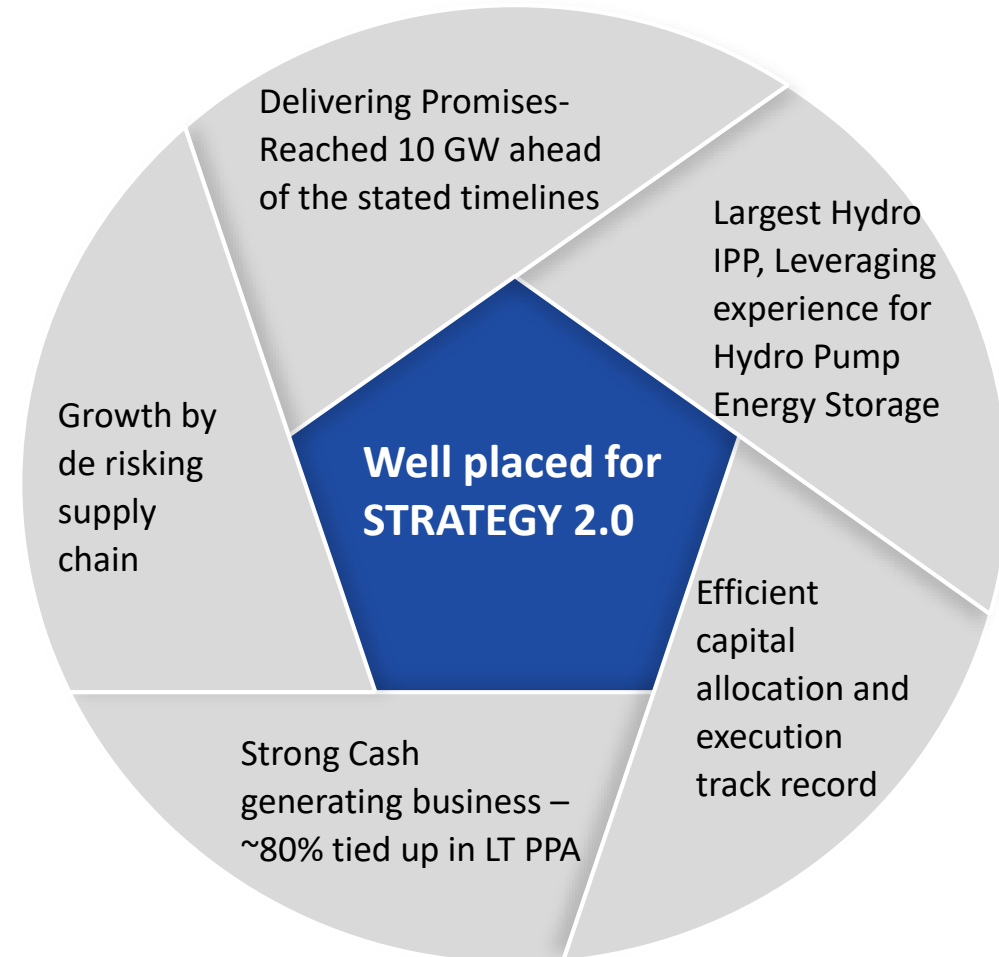
Bids- Shift towards RTC power from Plain Vanilla Solar and Wind

Alternatives like Green Hydrogen required to meet net zero target

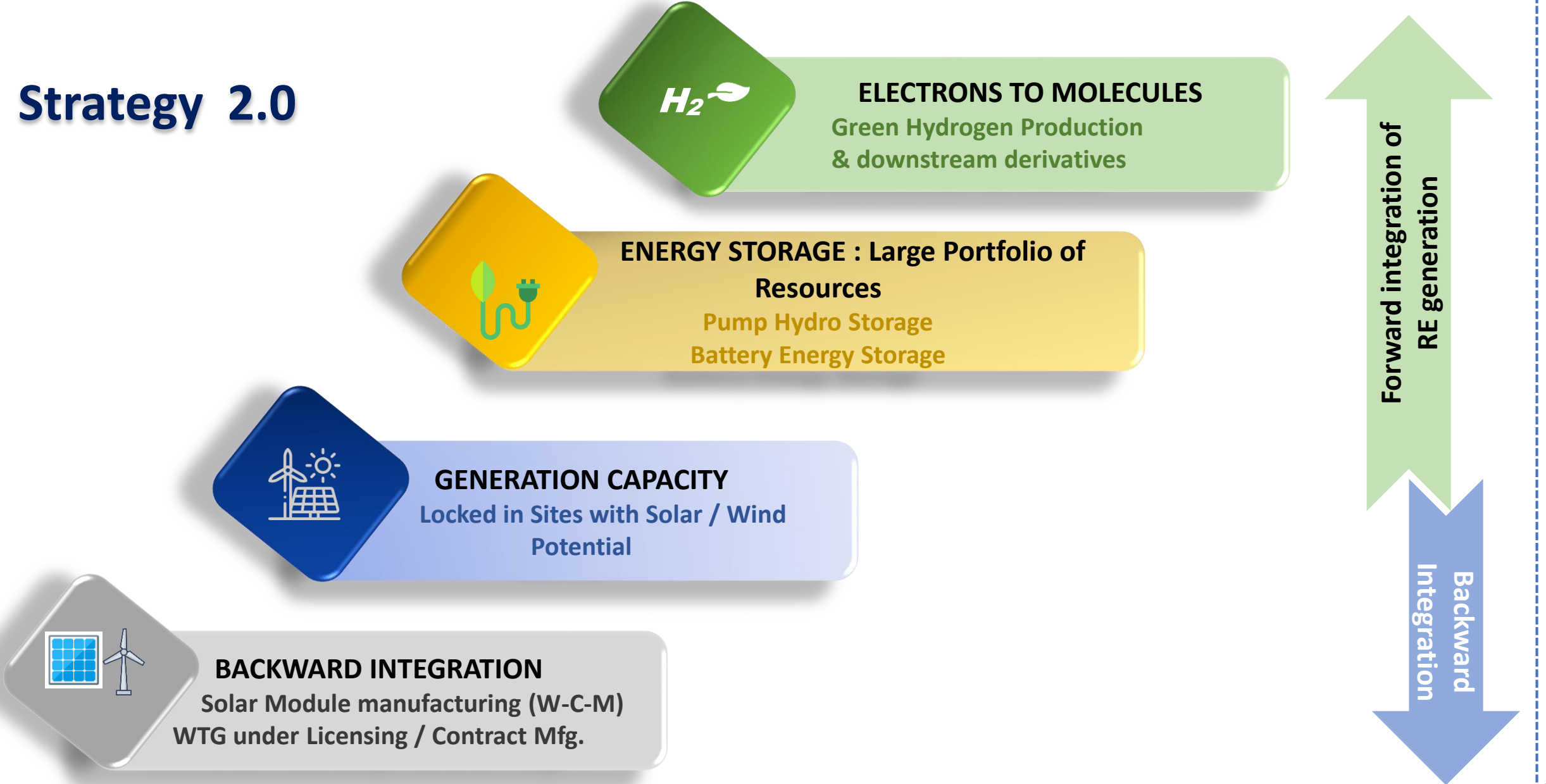
Manufacturing opportunities (PLI) – For supply chain Derisking

Strong De-carbonization need

JSW Energy Edge



Strategy 2.0



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

Pillars for Self sustainable and Integrated road map

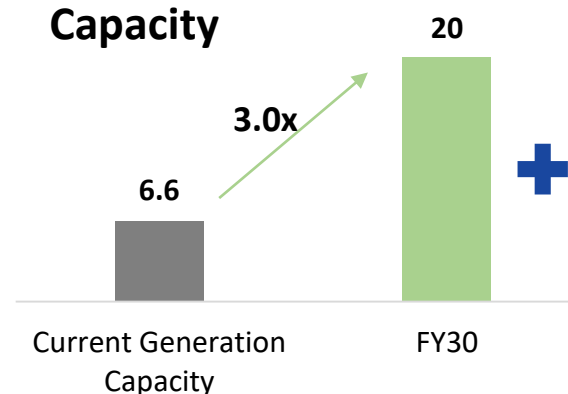
- Sustainable value creation focused on Cash Returns
- Internal Accruals and BS Headroom (no external capital)
- Organisational Capability and competency

Growth Multipliers

Portfolio generating healthy CF & 18% cash return¹

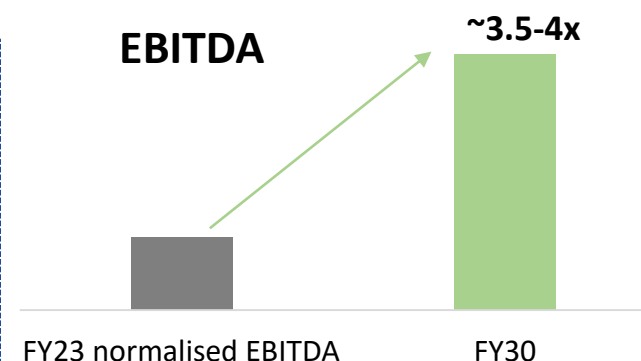
- ❖ Steady operations and robust financials
 - Portfolio (excl. Mytrah) Cash PAT of > ₹2,500 Crore p.a.
 - Incremental cash accruals from commissioning of Under construction projects and integration of M&A deals
- ❖ **85% of portfolio tied-up under Long Term PPA**
 - 85% of portfolio tied-up under Long 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

Capacity

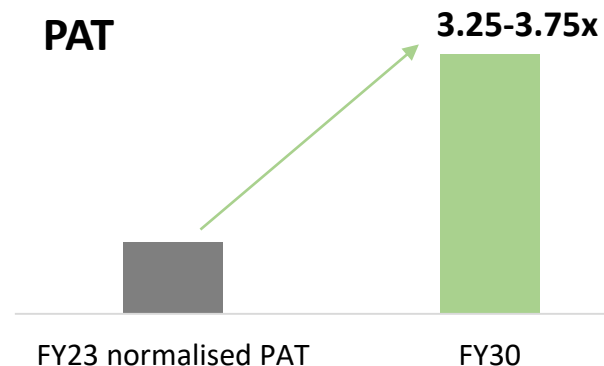


40GWh/5GW Energy Storage by FY30
1GW Solar Module Manufacturing Apr-25

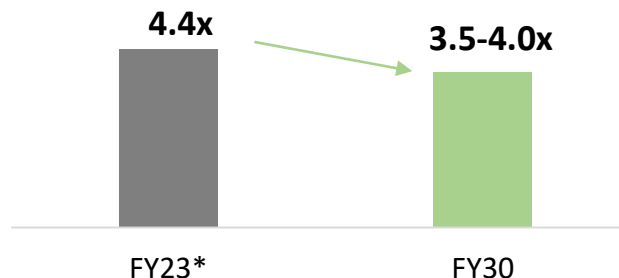
EBITDA



PAT



ND/EBITDA

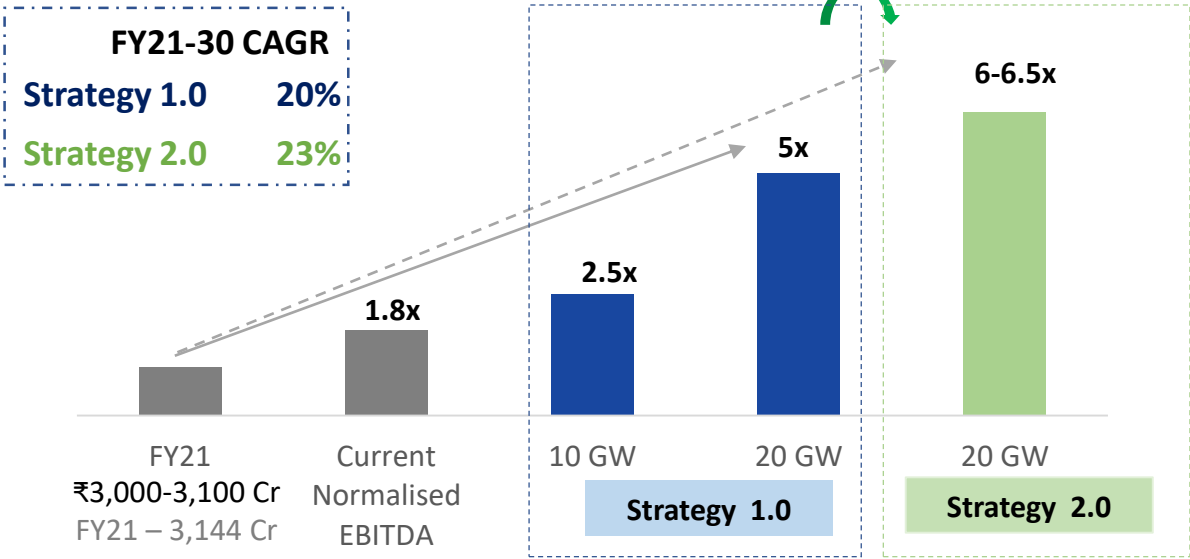


Revised Guidance 2.0 (2023-2030) – No Equity Dilution Needed

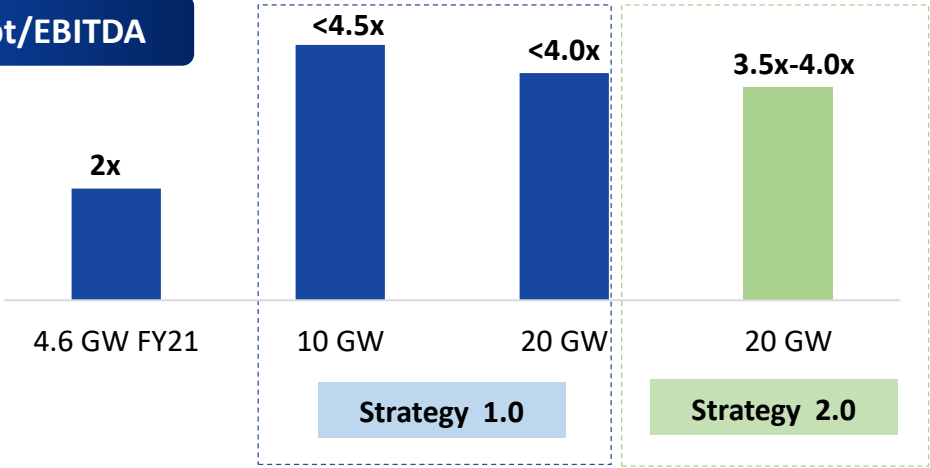
Growth to be driven by internal accruals

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

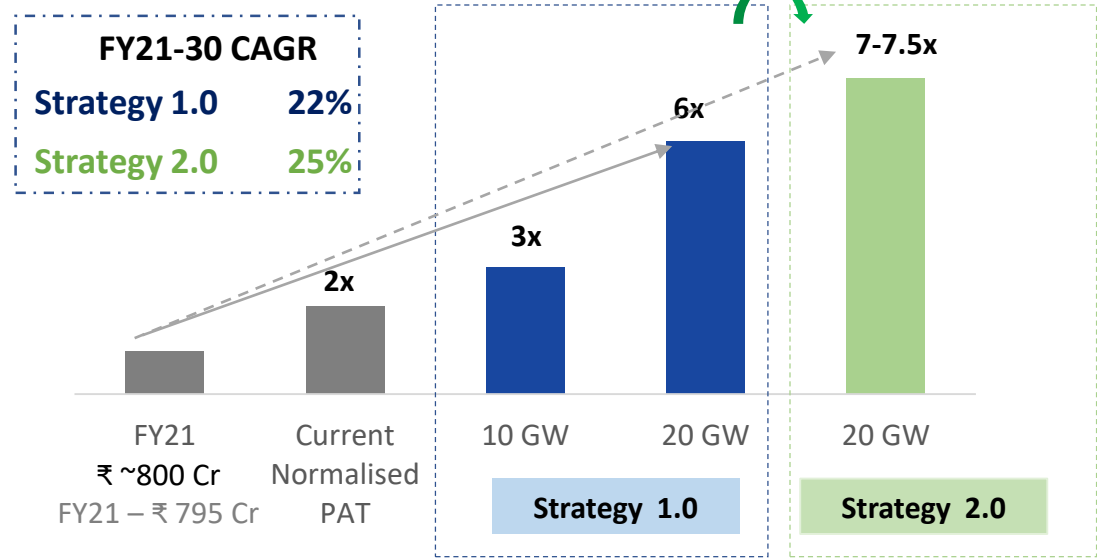
EBITDA



Net Debt/EBITDA



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

Agenda

Q4FY23 Highlights

Operational & Financial Performance

Safety & Sustainability

Business Environment

Appendix

Operational Performance



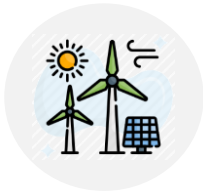
- Overall Net Generation: Up by 16% YoY at 5.1 BUs on back of strong merchant volumes and RE capacity addition
- Net Renewable Generation: Up by 32% YoY aided by commissioning of Vijayanagar solar power plant
- Net Long Term Generation: Up by 7% YoY at 4.4 BUs driven by higher generation at Ratnagiri (*Unit-1*) and RE capacity addition

Consolidated Financial Performance



- Adjusted EBITDA at ₹881 Cr up 7% YoY driven by contribution from RE capacity additions and improvement in operational efficiency, resulting in reported PAT of ₹272 Cr.
 - Cash PAT of ₹587 Cr, cash return on Adjusted Net Worth of 18% during Q4 FY23; maintaining track record of >18% cash returns on a sustained basis
- Receivables days improved on a YoY basis to 60 days; healthy collection trend sustained
- Best in class Balance Sheet, well-positioned to pursue growth
 - Proforma Net Debt to Equity at 1.2x, Proforma Net Debt to EBITDA (TTM) at 4.4x
 - Strong Liquidity: Cash & Cash Equivalents¹ at ₹4,627 Cr

Under construction – Generation Projects



- 1.26 GW SECI IX & X Wind projects : Progressive commissioning of **SECI X** project under progress with part CoD for 78 MW as of Apr'23; WTG foundation and balance of plant works in-progress for **SECI IX**
- 240 MW Kutehr HEP: Project well ahead of timelines with ~92% tunneling completed (70% in FY22)

Energy Storage Projects



- Battery Energy Storage System: LoA received for 1 GWh (500MW x 2 hours) SECI project
- Hydro Pumped Storage:
 - Letter of Intent for procurement of 2.4 GWh (300 MW x 8 hours) of energy from PSP received from Power Company of Karnataka Limited under a competitive bidding
 - MoUs/LoI signed for 22 GWh (3.2 GW) during the quarter. Total MoUs/Lols at ~72GWh (10.8 GW) for which approvals and preparatory works in progress

Update on Acquisitions



- Mytrah RE assets
 - Completed the acquisition of 1,753 MW of renewable assets from Mytrah Energy (India) Private Limited at an Enterprise Value of ₹10,150 Cr, after adjusting for net current assets and other adjustments under the SPAs (Share Purchase Agreements)
- Ind-Barath
 - Completed the acquisition of under-construction 700 MW of Ind-Barath Thermal Power Plant at ₹1,048 Cr, expected commissioning by FY24

Awards and Recognitions



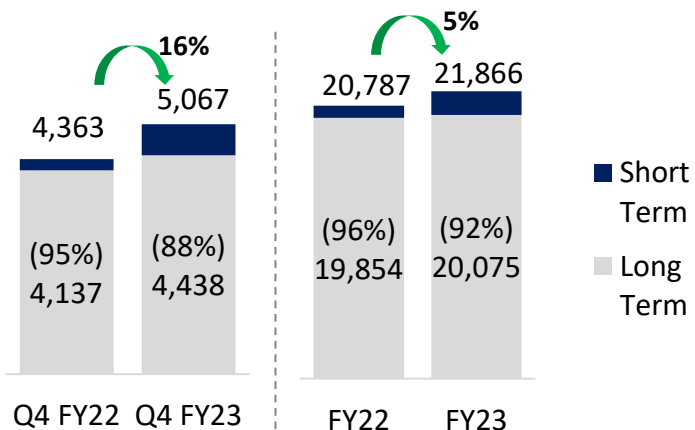
- CDP Climate Program: Maintained its prestigious and industry leading 'Leadership' (A-) rating in CDP Climate Program 2022 reflecting company's transparency in carbon disclosure and its commitment in prioritizing action on climate change and ESG initiatives
- CDP Supplier Engagement: JSW Energy secured leadership (A) rating from CDP for supplier engagement under thermal power generation group for 2022.
- Council of Enviro Efficiency: Barmer Plant won the 'Best Power Generator Award 2023' organised by CEE

Operational & Financial Performance

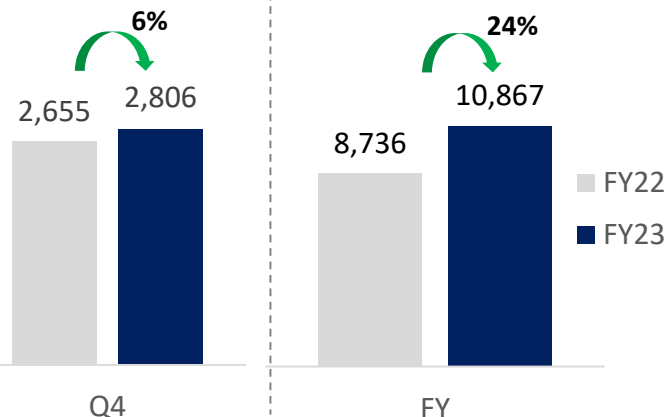


Consolidated Performance

Net Generation (MUs)



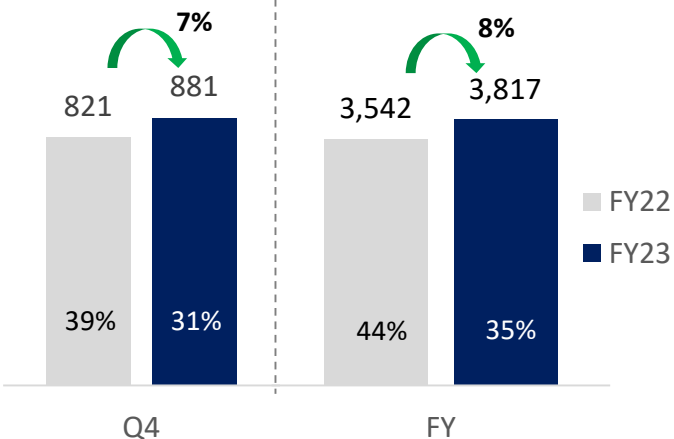
Total Revenue* (₹ Cr)



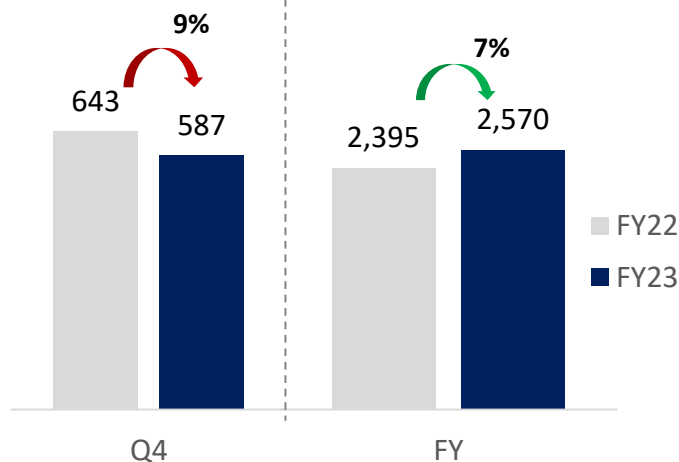
Operational Highlights

- **Total Net Generation:** +16% YoY in Q4 FY23 at 5.1 BUs due to strong merchant volumes and RE capacity addition. +5% YoY in FY23 at 21.9 BUs on the back of RE capacity additions and steady LT generation.
- **Renewable Net Generation:** +32% YoY in Q4 FY23 at 585 MUs led by contribution from Vijayanagar solar plant and part-commissioning of SECI X Wind (27 MW). +9% YoY in FY23 due to capacity addition and steady hydro power generation.

Adj. EBITDA* (₹ Cr) and Margins** (%)



Cash Profit After Tax*** (₹ Cr)



Financial Highlights

- **Total Revenue:** +6% YoY in Q4 FY23 and +24% YoY in FY23 driven by higher realizations on account of fuel cost pass-through and increase in RE capacity
- **Adjusted EBITDA** at ₹881 Cr in Q4 FY23 was up 7% YoY and ₹3,817 during FY23 was up 8% YoY
- **Cash PAT** generation continues to be strong

Strong EBITDA and Cashflow generation from Long-term portfolio

Thermal Assets | Q4 FY23 Highlights (1/2)

Total Thermal Assets

Total Thermal Capacity
3,858 MW

Operational Capacity
3,158 MW

Under Construction
Ind-Barath
700 MW

Operational Assets - 3,158* MW



Ratnagiri



Barmer



Vijayanagar



Ind - Barath

Installed Capacity

1,200 MW

1,080 MW

860 MW

700 MW

PPA tied

1,095MW

1,080 MW

338 MW

Net Generation (Mus)

LT

1,506 MUs (17% YoY)

1,730 MUs (8% YoY)

615 MUs (-20% YoY)

Located in coal belt

100%

1,752 MUs (29% YoY)

1,730 MUs (8% YoY)

998 MUs (7% YoY)

Easy access to water

PLF/ (Deemed PLF)

LT

71%/(98%)

82%/(87%)

99%/(100%)

Expected commissioning by FY24

100%

74%/(98%)

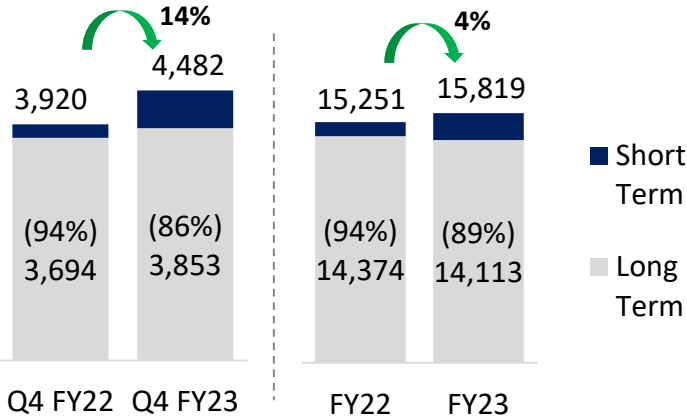
82%/(87%)

58%/(59%)

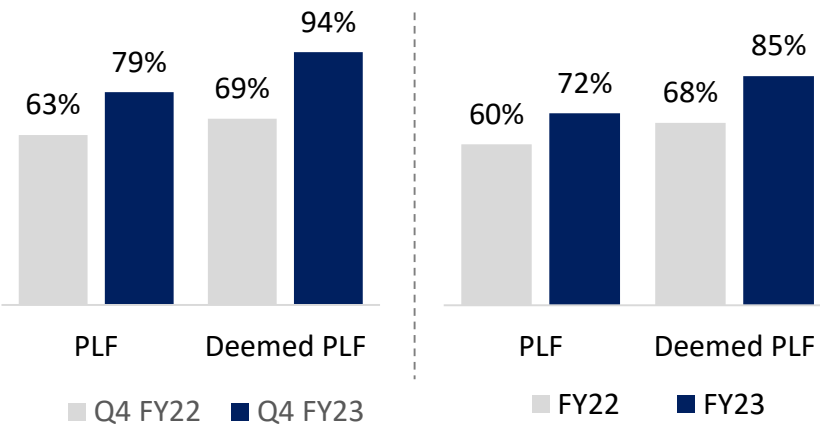
~80% of Capacity Tied-up under Long-Term PPA

Thermal Assets | Q4 FY23 Highlights (2/2)

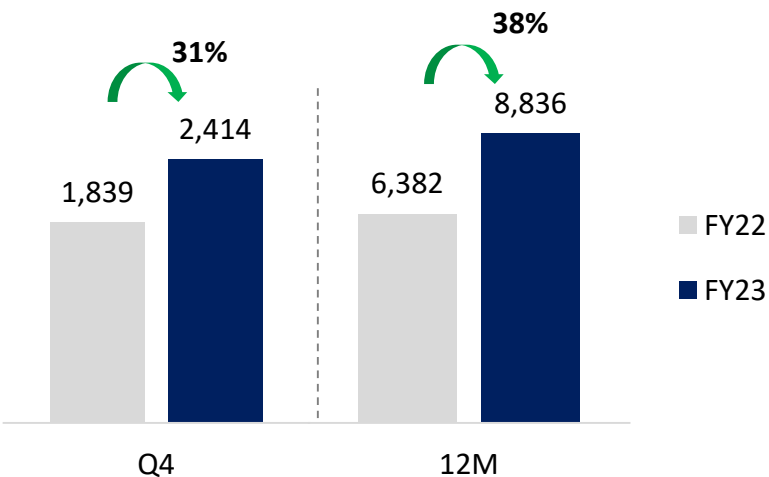
Net Generation (MUs)



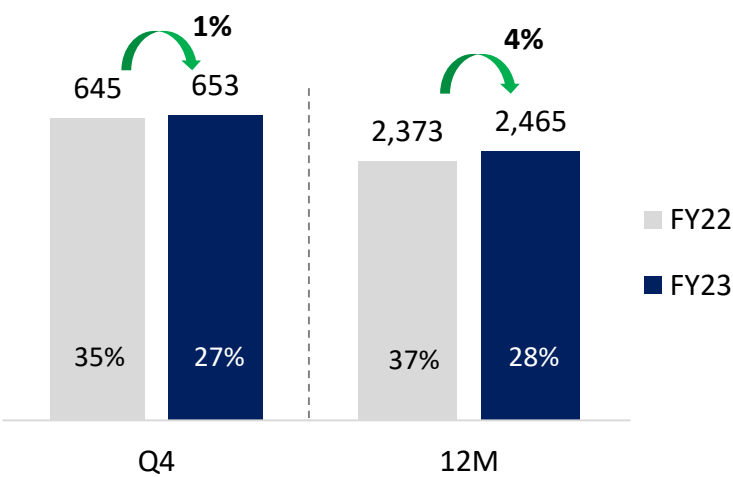
Thermal : PLF – long term



Revenue from Operations¹ (₹ Cr)



Adj. EBITDA (₹ Cr) and EBITDA Margins (%)



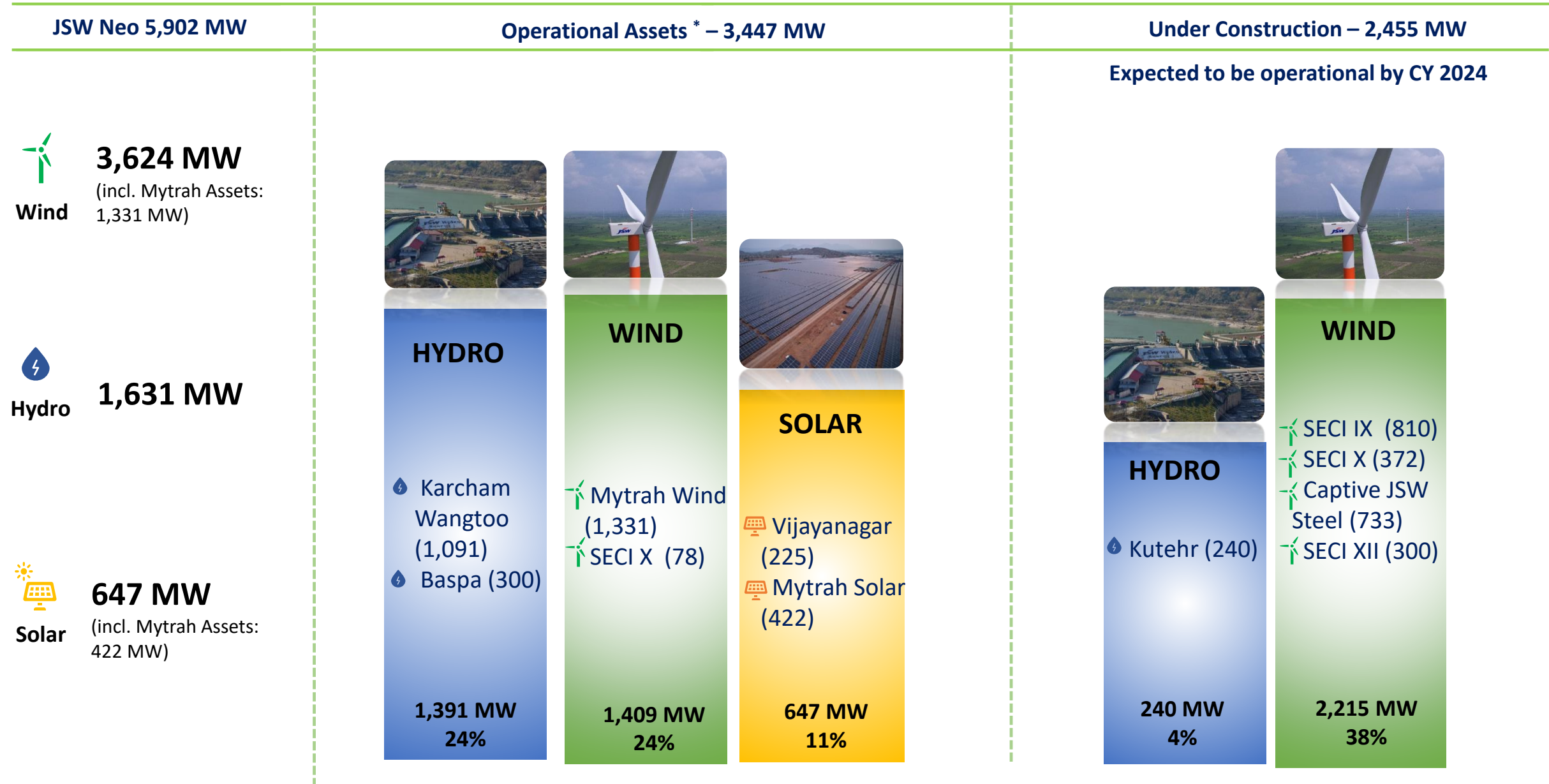
Operational Highlights

- **Total Net Generation** +14% YoY at 4.5 BUs, as merchant volumes soar ~3x in the quarter.
- **Net LT generation** +4% YoY at 3.9 BUs, higher LT generation at Ratnagiri was partly offset by lower LT generation at Vijayanagar. LT PLF improved to 79% in Q4 FY23
- **LT PLF** increased to 79% in Q4 FY23 from 63% in Q4 FY22

Financial Highlights

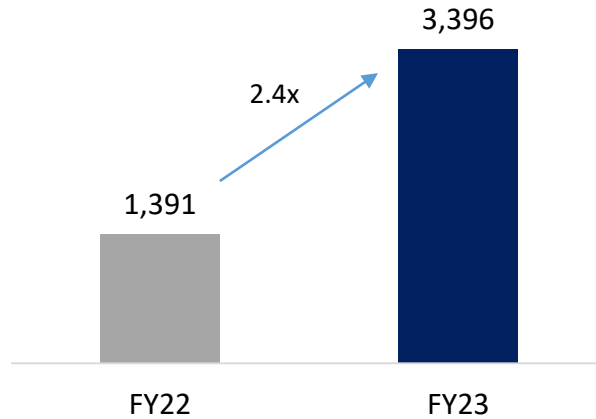
- Total Revenue at ₹2,414 Cr increased by 31% YoY on account of higher realizations (fuel cost pass through) and higher merchant volumes
- EBITDA at ₹653 Cr was flattish on YoY basis

4.3x Capacity Growth in Renewables

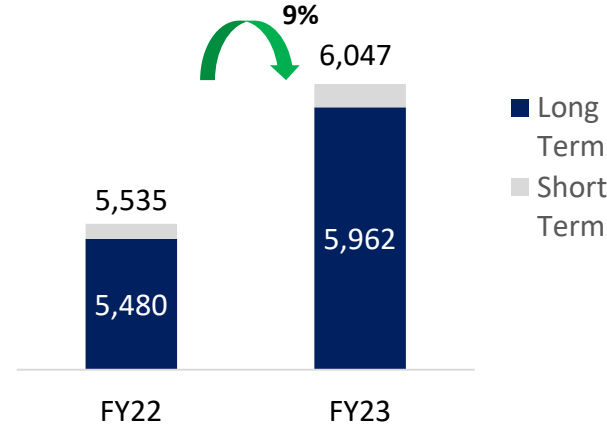


* Includes 51 MW of SECI X Wind Plant for which CoD was received post FY23 35

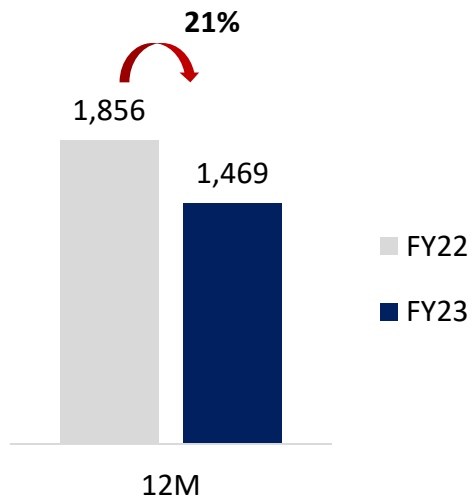
Installed Green Capacity¹ (MW)



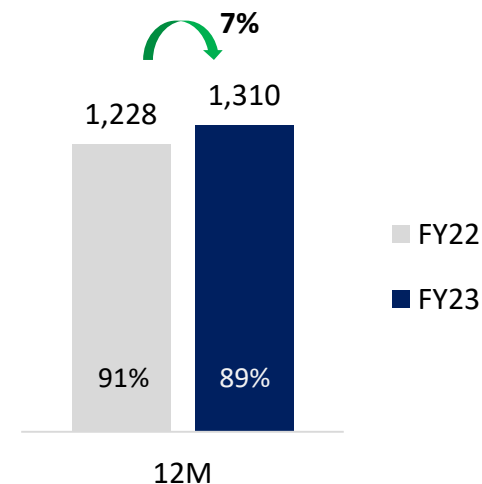
Net Generation (MUs)



Revenue from Operations¹ (₹ Cr)



Adj. EBITDA* (₹ Cr) and Margins** (%)



Operational Highlights FY23

- Capacity addition of ~2 GW in the year
- Net generation +9% YoY to 6 BUs driven by capacity additions and steady generation at hydro plants
 - Solar assets generated 412 MUs at average CUF of 22%
 - SECI X (27MW, part commissioned in Q3 FY23) generated 29 MUs at a CUF of 30%

Financial Highlights FY23

- Total revenue for FY23 stood at ₹1,469 Cr vs ₹1,343 Cr in FY22 (excluding the impact of true-up order at Karcham-Wagtoo), implying 9% YoY growth
- Adjusted EBITDA at ₹1,310 Cr was up 14% YoY supported by capacity expansion

¹ Includes Hydro Assets (Karcham-Wangtoo and Baspa) 1,391 MW, Vijayanagar Solar 225 MW, Mytrah RE 1,753 MW and SECI X - 27 MW

* EBITDA adjusted for one-time effects of true-up order at Karcham-Wangtoo subject to consolidation adjustments. ** EBITDA Margins based on revenue excluding one-time effects of true-up order at Karcham-Wangtoo

Consolidated Financial Results

FY23	FY22	Particulars in ₹ Crore	Q4 FY23	Q4 FY22
10,867	8,736	Total Revenue ¹	2,806	2,655
3,817	4,138	EBITDA	881	1346
35%	47%	EBITDA Margin(%)	31%	51%
3,817	3,542	EBITDA (Adjusted) ²	881	821
35%	44%	EBITDA Margin(%) (Adjusted) ²	31%	39%
844	777	Finance Cost	233	100
844	683	Interest Cost	233	170
0	94	Exceptional ³	0	(69)
1,169	1,131	Depreciation	291	277
1,924	2,230	Profit Before Tax	357	969
1,478	1,729	Profit After Tax	272	864
1,358	1,180	Profit After Tax (Adjusted) ²	272	372
2,570	2,395	Cash Profit After Tax ⁴	587	643
9.00	10.50	Diluted EPS (₹)	1.67	5.24

1. Including impact of Karcham Wangtoo True-up Order in FY22, hence not strictly comparable YoY

2. Adjusted for reversal of provision in FY22 for JSWHEL due to receipt of Karcham Wangtoo's Tariff True-up order subject to consolidation adjustment. FY23 Adjusted for ₹120 Crore of provision written back.

3- Includes (a) One-off prepayment and other unamortized finance cost due to repayment of rupee term loan at hydro in Q1FY22, and (b) interest on regulatory liabilities

4. Computed as PAT+ Depreciation+ Deferred Taxes (-) dividend income from JSW Steel +/- Exceptional items/one-offs;

EBITDA Bridge

Particulars in ₹ Cr

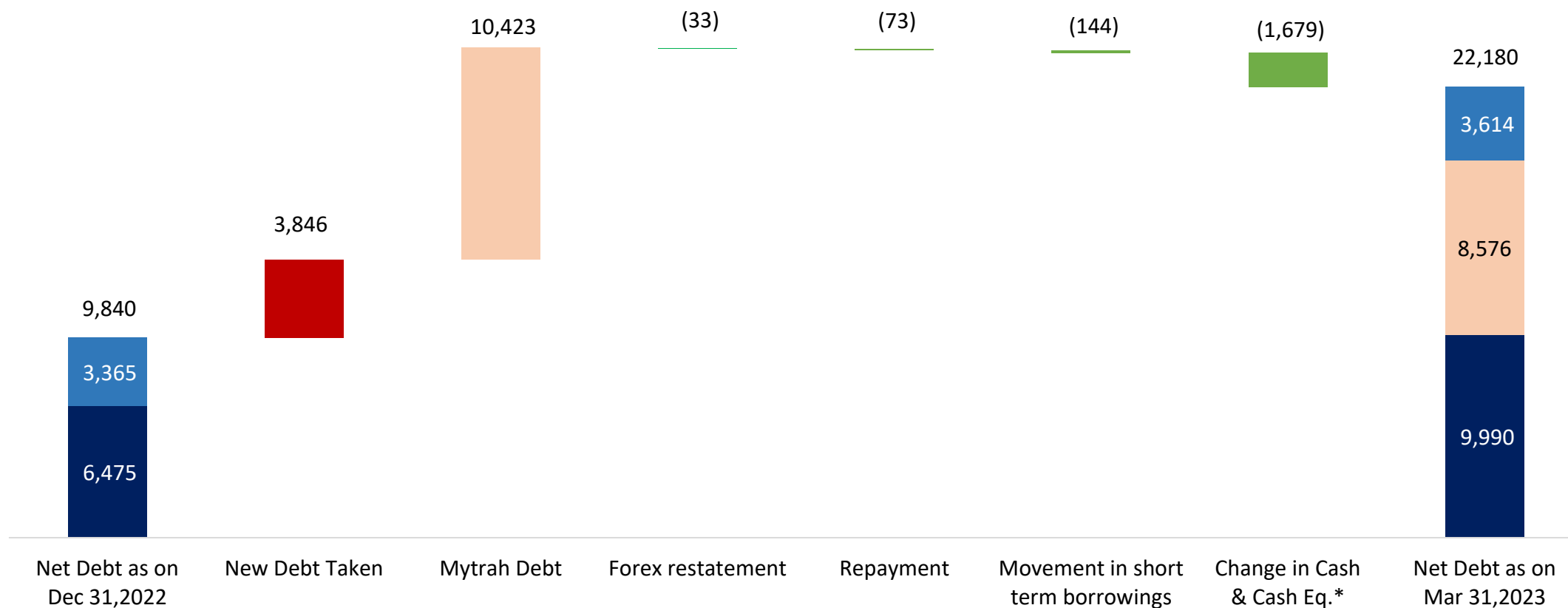


Net Debt Movement (Proforma | Incl. Mytrah Debt)

Particulars in ₹ Cr

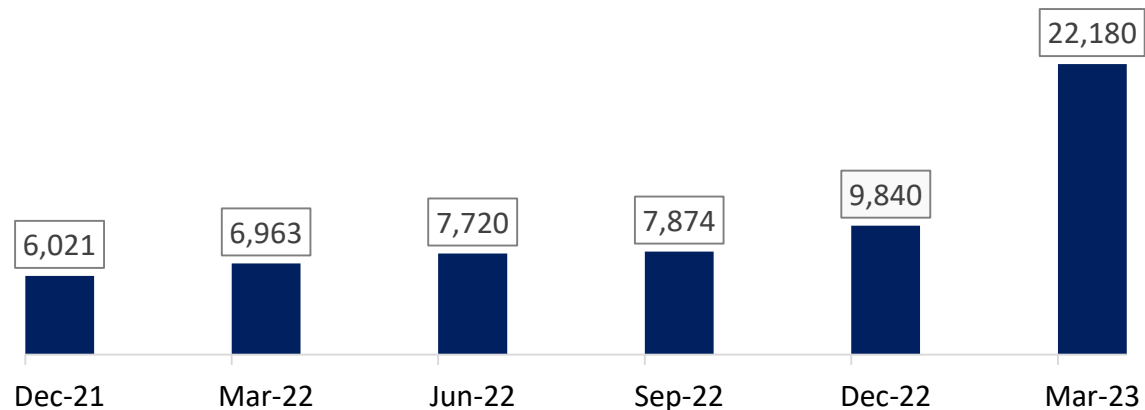
- Under-Construction
- Mytrah
- Operational Projects

Leverage	Net Debt (₹ Cr)	EBITDA (₹ Cr)	ND/EBITDA (x)
Operating (Excl. Mytrah)	9,990	3,817	2.6x
Mytrah (Normalised EBITDA)	8,576	1,650	5.2x
Combined (Excl. Under construction)	18,566	5,467	3.4x

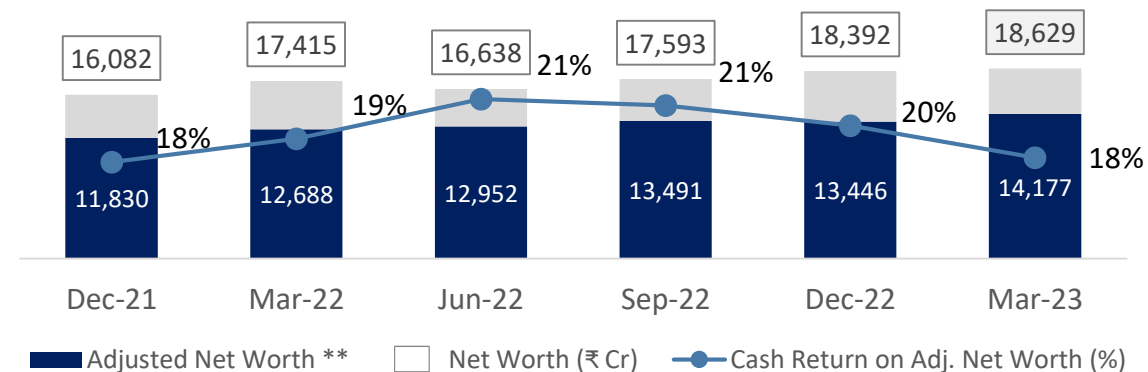


Superior Financial Risk Profile (Proforma | Incl. Mytrah Debt)

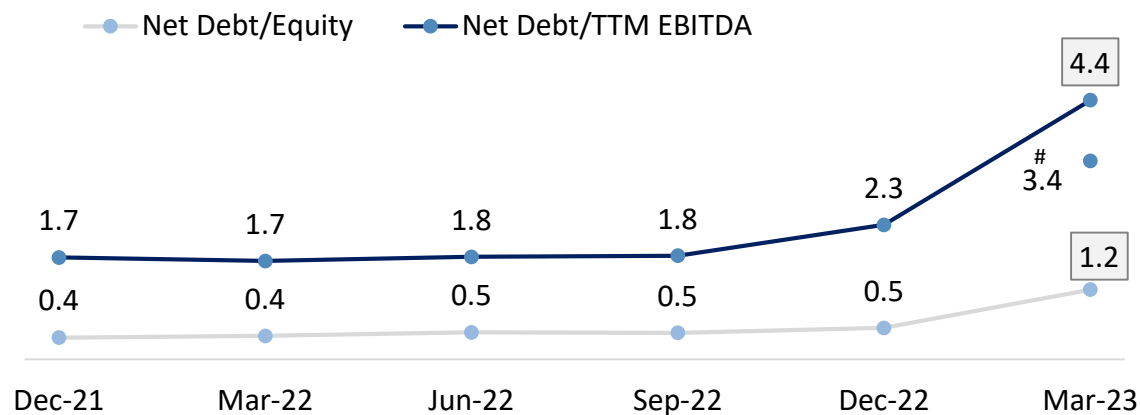
Net Debt (₹ Cr)



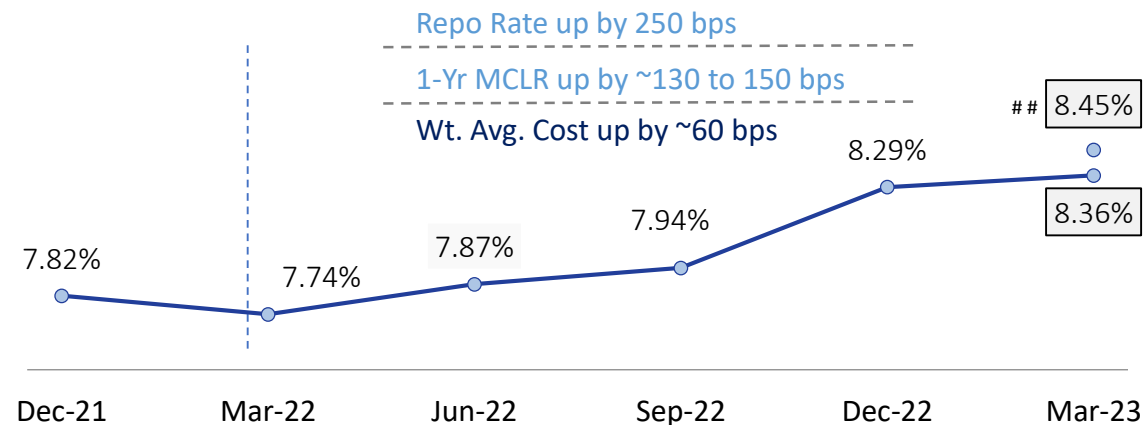
Net Worth (₹ Cr)* & Cash Returns (%)



Leverage Ratios



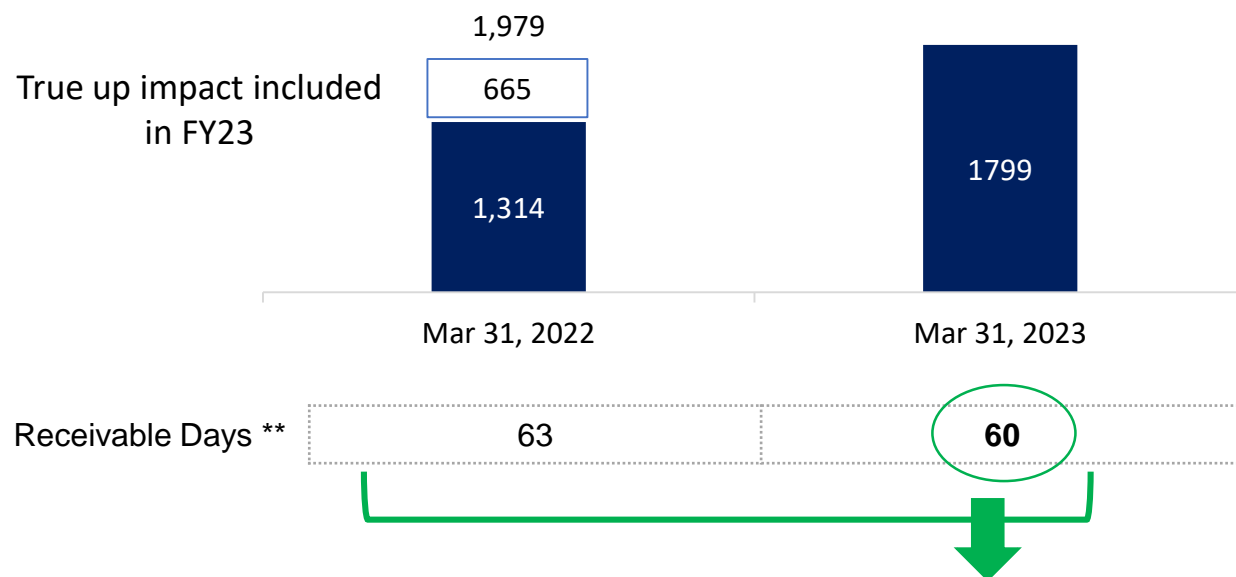
Wt. Average Cost of Debt



Amongst the strongest balance sheets in the sector & best in class financial metrics

Healthy Trade Receivables (Excl. Mytrah)

Consolidated Trade Receivables* (₹ Cr)



- Receivables days in Q4 FY23 at 60 days down on YoY basis from 63 days
 - Receivables (in ₹ Cr) increase YoY due to higher fuel costs.
- 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.

Sustainability



Baspa Reservoir

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

Climate Change:
Committed to being carbon neutral by 2050
Reduce our carbon emissions by more than 50%

Renewable Power:
Enhance the renewable power to 2/3rd of our Total Installed Capacity

Biodiversity:
No Net Loss for Biodiversity

Waste Water:
Zero Liquid Discharge

Waste:
100% Ash (Waste) utilization

Water Resources:
Reduce our water consumption per unit of energy produced by 50%

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

IFC International Finance Corporation
WORLD BANK GROUP
Creating Markets, Creating Opportunities

ISO

SUSTAINABLE DEVELOPMENT GOALS

UNITED NATIONS GUIDING PRINCIPLES ON BUSINESS & HUMAN RIGHTS

NATIONAL GUIDELINES ON RESPONSIBLE BUSINESS CONDUCT

OECD

United Nations Global Compact

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)

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

FY19






FY20

FY21

FY22

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

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"> Increased share of renewable energy for deep decarbonization Process efficiency improvements Replacement of condenser tubes with graphene coatings
 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
 Waste	<ul style="list-style-type: none"> Specific Waste (Ash) Generation (t/MWh) Waste Recycled - Ash (%) 	0.070 100		0.032 100	54% -	<ul style="list-style-type: none"> Integrated Strategy towards efficient waste management Optimizing utilisation of low ash coal
 Air Emissions	Specific process emissions(Kg/MWh) <ul style="list-style-type: none"> PM SOx NOx 	0.16 1.78 1.01		0.053 0.683 0.373	67% 61% 63%	<ul style="list-style-type: none"> Ensuring ESP (Electrostatic Precipitator) Fields availability Optimising Lime dozing system efficiency Process efficiency improvements
 Biodiversity	<ul style="list-style-type: none"> Biodiversity at our operating sites 	-		Achieve 'no net loss' of biodiversity		<ul style="list-style-type: none"> Continue to enhance Biodiversity at all our locations and operations to achieve 'no net loss' Increase green cover across operations Eco-system studies (all seasons) in progress for finalising a Bio-diversity management plan at Barmer location.

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



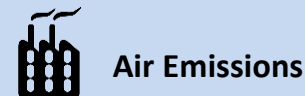
Water Security

- 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

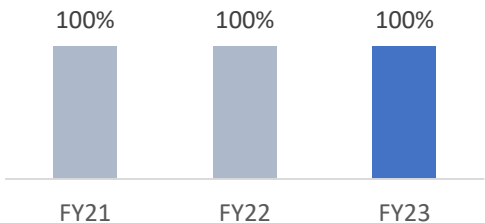


Biodiversity

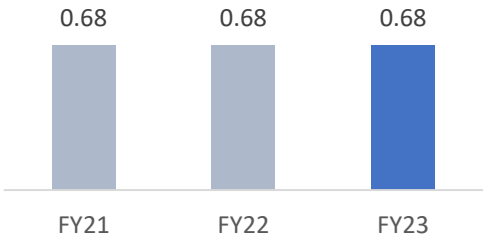
- Ecosystem studies (all seasons) completed at barmer plant.
- Increase green cover across operations
- Biodiversity assessments for No Net Loss started at 5 other locations of JSW Energy

Performance

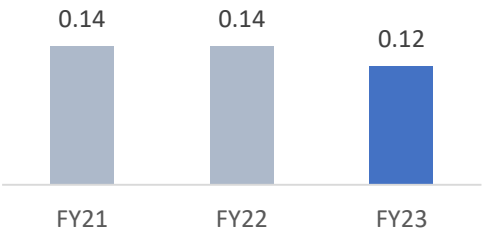
Ash Utilisation (%)



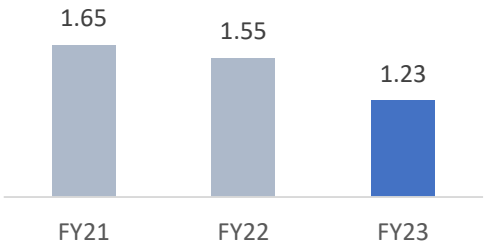
CO2 intensity (tCO2e/MWh)



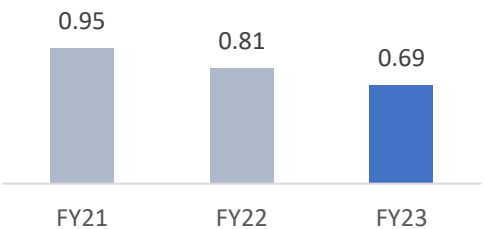
PM Emissions (kg/MWh)



SOx Emissions (kg/MWh)



NOx Emissions (kg/MWh)



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



Investor Relations Contact:

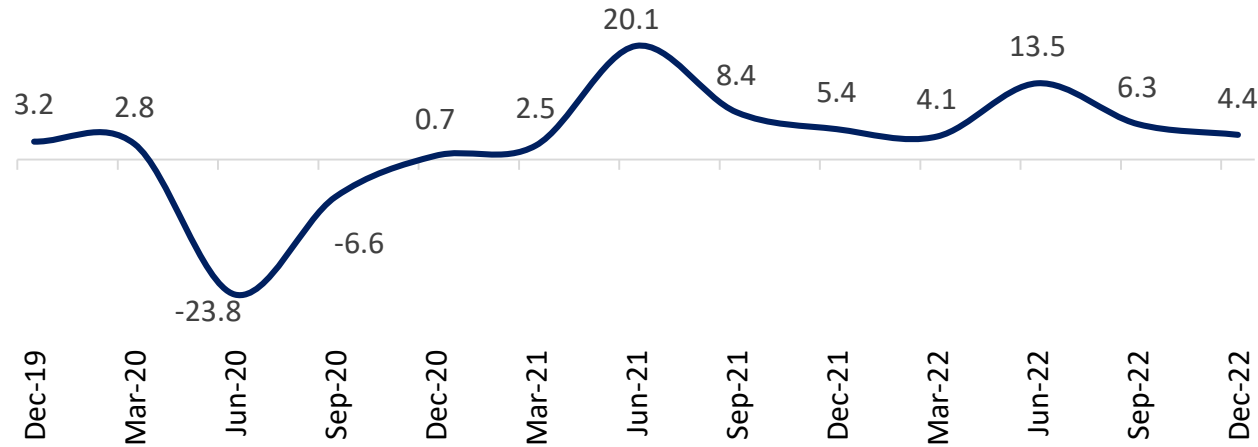
ir.jswenergy@jsw.in

ESG Data Profile: [Link](#)

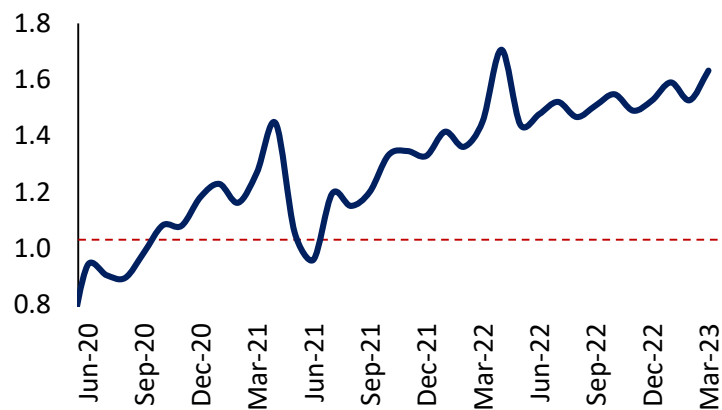
Business Environment



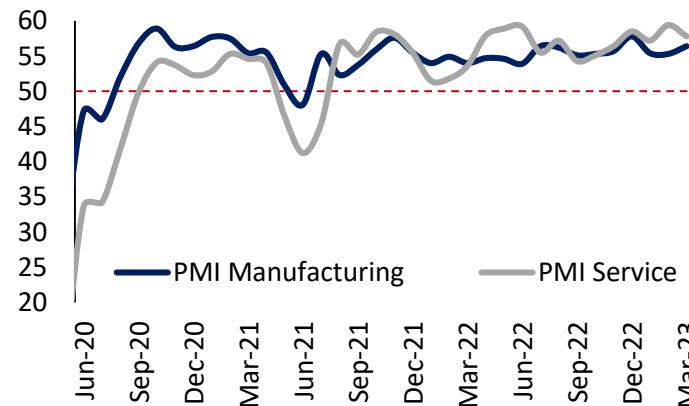
Real GDP Growth (%)



GST Collection (₹ Lakh Cr)



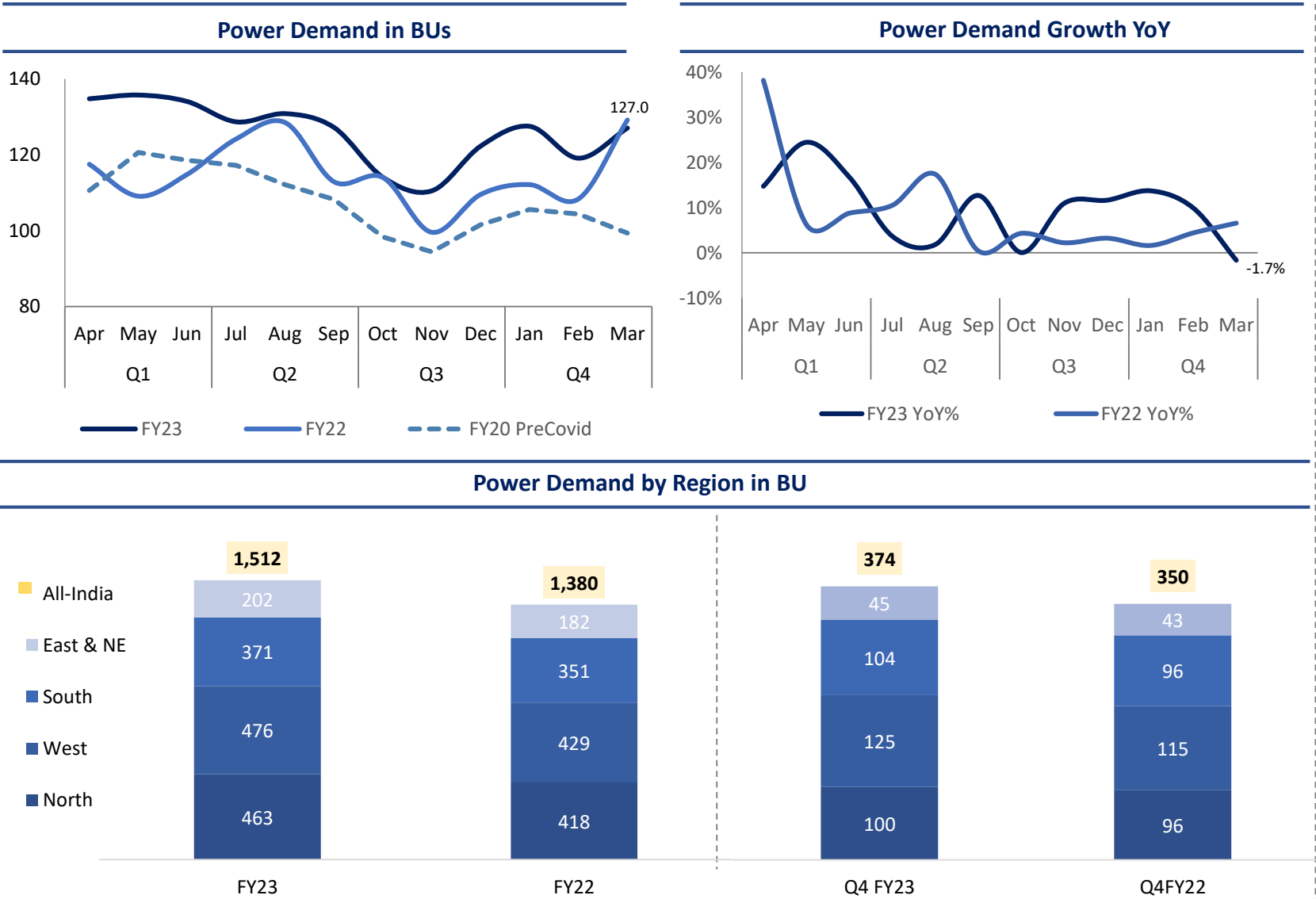
PMI – Manufacturing & Services



RBI projects India's GDP growth at 6.5% for FY24

- India continues to see resilient growth amid headwinds from slowing global growth and trade
 - Real GDP growth for quarter Dec-22 stood at 4.4% YoY.
 - PMI: Manufacturing (Mar-23: 56.4) and Services (Mar-23: 57.8) PMI continue to be encouraging and further improved in April-23
 - Strong GST collections trend with more than ₹ 1.4 trillion for 14 months in a row; Mar-23 witnessed ₹ 1.6 trillion and April-23 witnessed ₹ 1.9 trillion, highest ever GST collection
- Indian Inflation continues to moderate
 - CPI inflation in Mar-23 came at 15 month low of 5.7%. Apr-23 month inflation further moderated to 4.7%.
 - RBI in its recent MPC meet kept repo rate unchanged to 6.50%; the key rate has been raised by 250 bps since May-22
- Broad-based economic reforms bode well for the sector
 - Green Hydrogen Mission with an outlay of ₹ 19,700 Cr
 - Viability Gap Funding for 4000MWh Battery energy storage projects.
 - Allocated PLI Tranche II for advanced solar module manufacturing

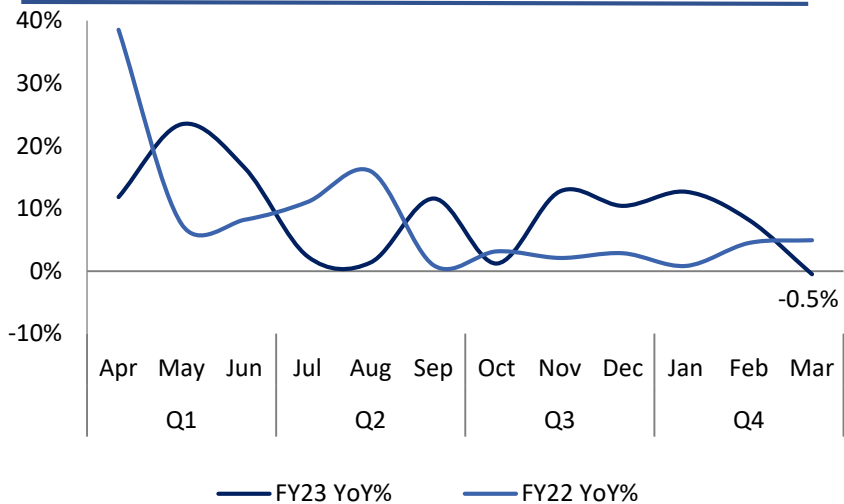
Power Demand grew by 10% in FY23



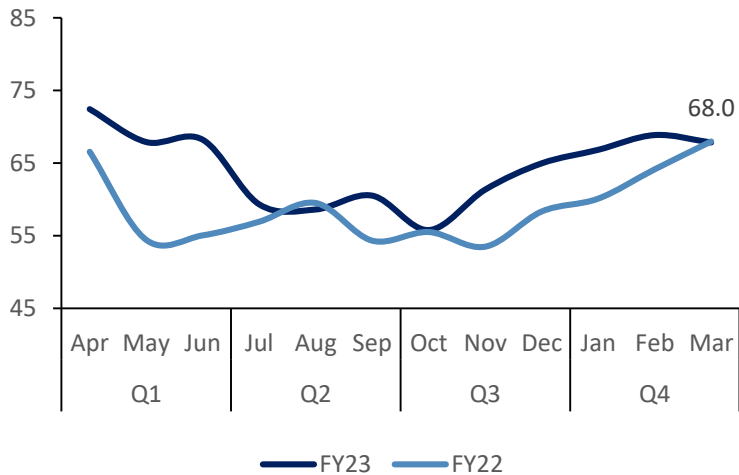
- The total demand recorded in FY23 was 1,512 BUs up 10% YoY
- On a quarterly basis India witnessed a demand of 374 BUs in Q4 FY23 vs 350 BUs in Q4 FY22 up 7% YoY
- Total demand met (supply) for FY23 was 1,504 BUs implying a shortfall of 8 BUs or 0.5% of the overall demand
- The peak demand witnessed in Q4 FY23 was 212.6 GW in the month of January
- West Region had the largest share in the overall demand with 34% of the overall volumes in Q4 FY23.

Overall Generation grew by 9% in FY23

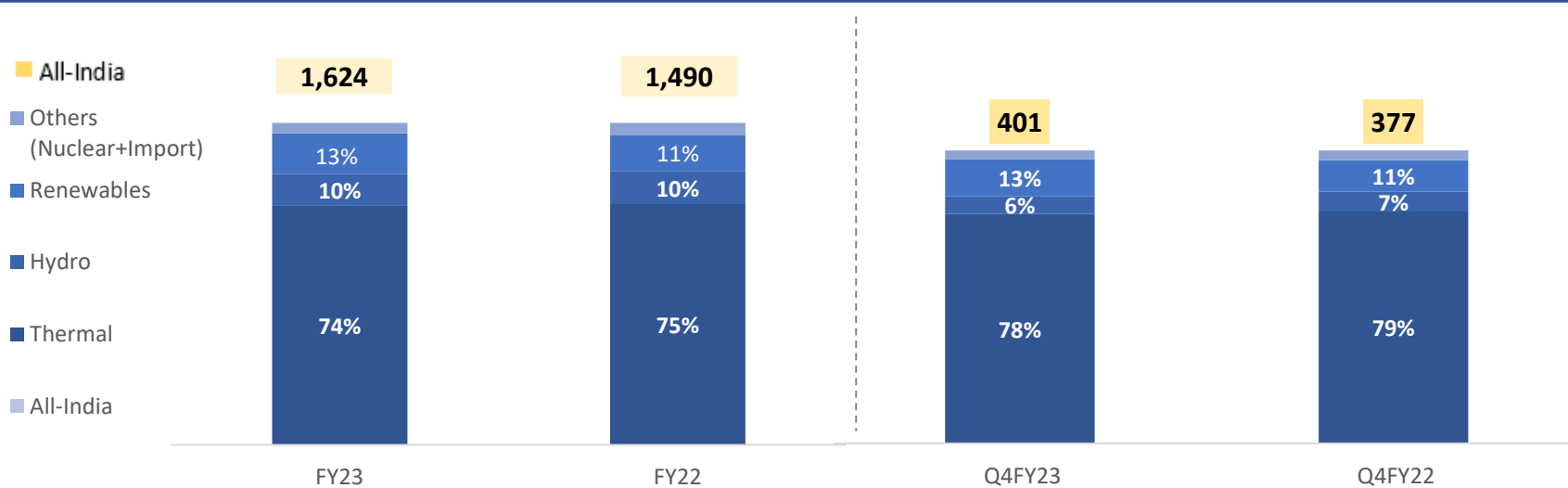
Power Generation Growth YoY



Thermal PLFs



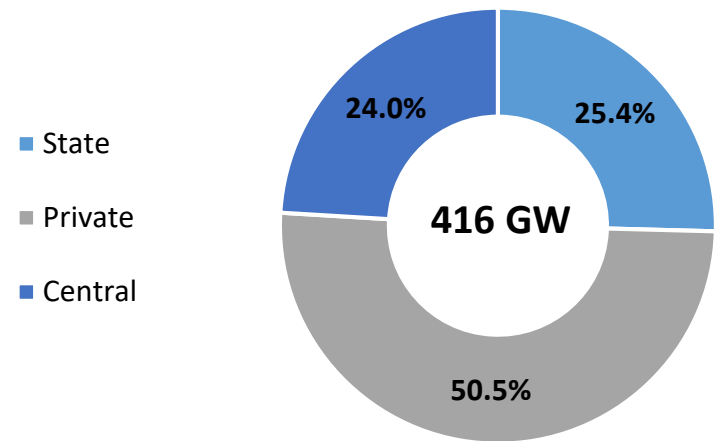
Power Generation by Source



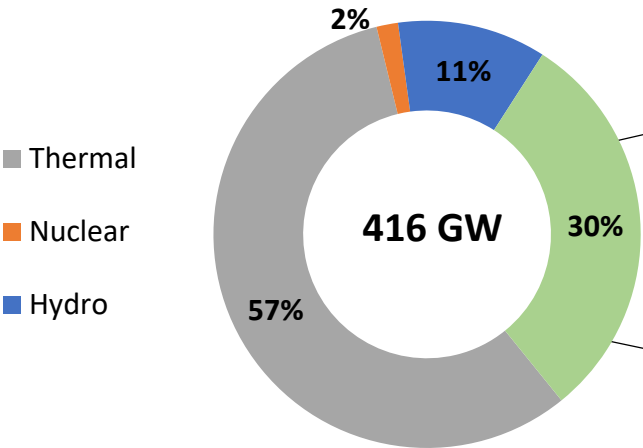
- Overall generation during FY23 at 1,624 BUs increased by 9% YoY led by higher generation across sources; with renewable generation registering 20% YoY growth
- Share of thermal generation stood at 74% during FY23 and average PLFs recorded at 64.1% vis-à-vis 58.9% in FY22
- In Q4 FY23 overall generation grew by 6% to 401 BUs where higher generation from Renewables and Thermal was partly offset by lower Hydro generation
- Average Thermal PLFs improved YoY in the quarter to 67.9%

India's installed capacity stands at 416 GW as on Mar-23

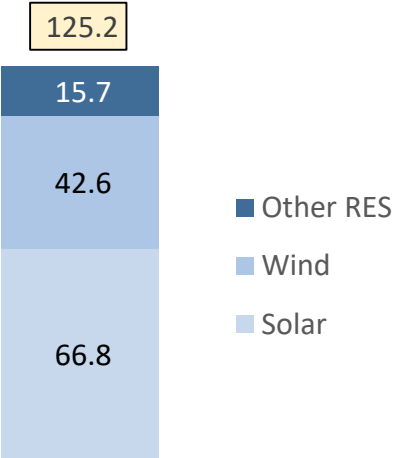
Sector-wise Installed Capacity



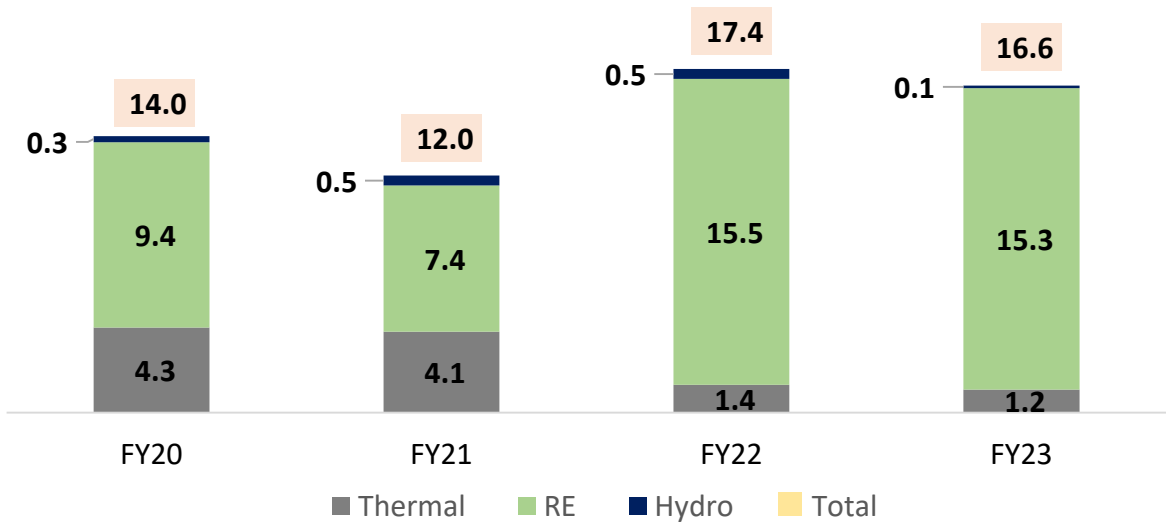
Segment-wise Installed Capacity



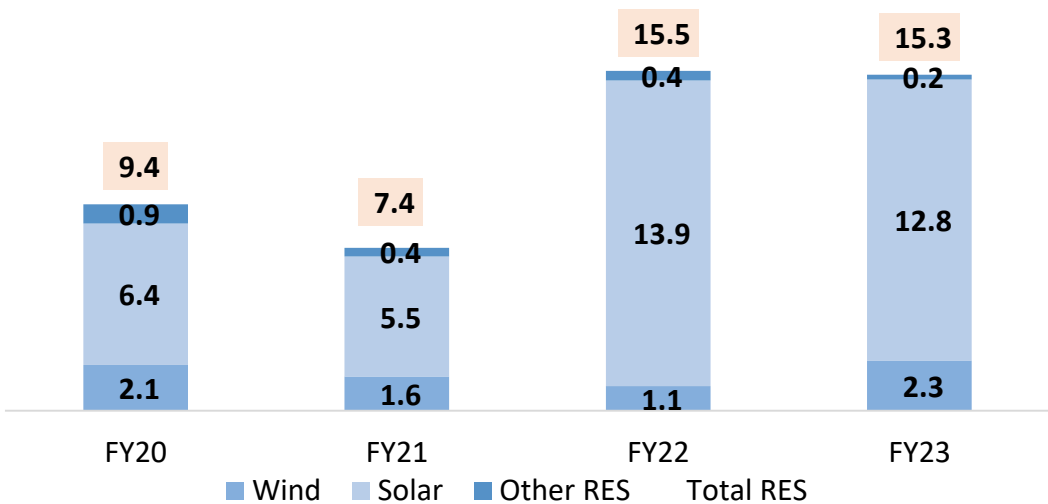
Renewable Capacity Breakdown



Overall segment wise net capacity additions (GW)

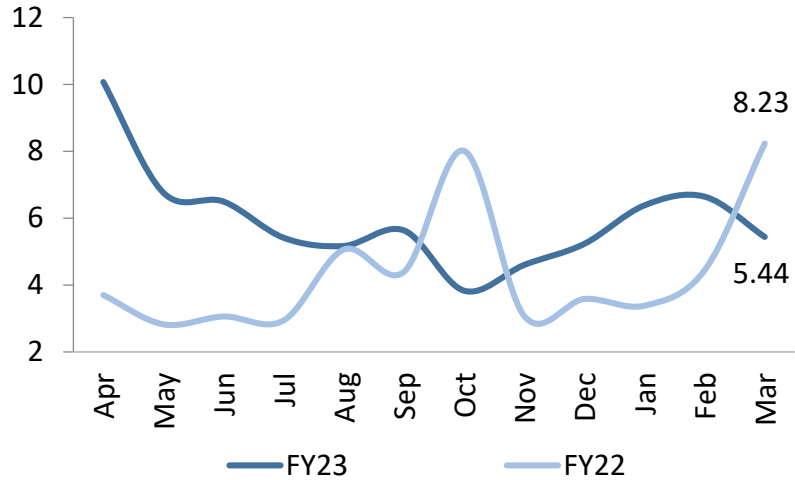


Renewable Capacity Additions (excl. Hydro) GW

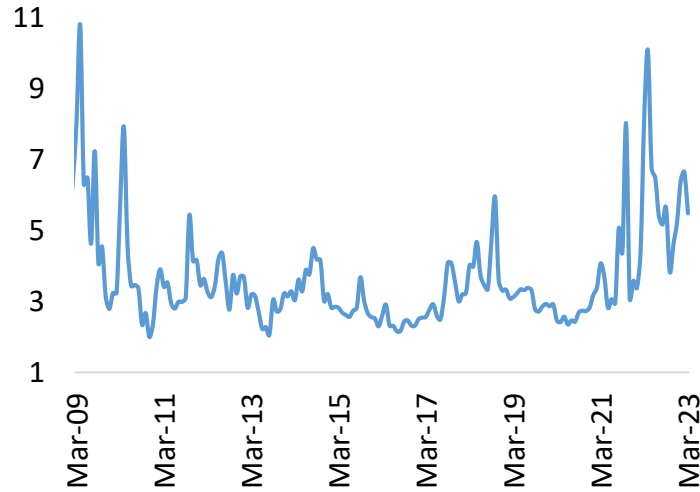


Merchant Power – Day Ahead Market

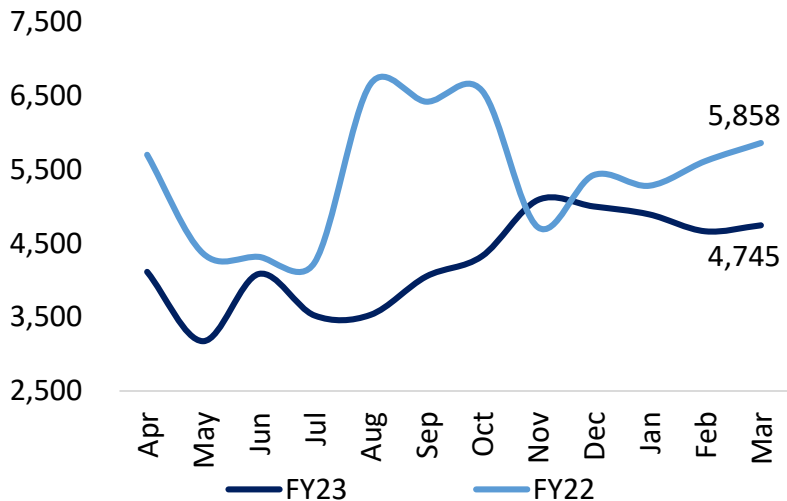
Monthly Average Merchant Tariff (₹/unit)



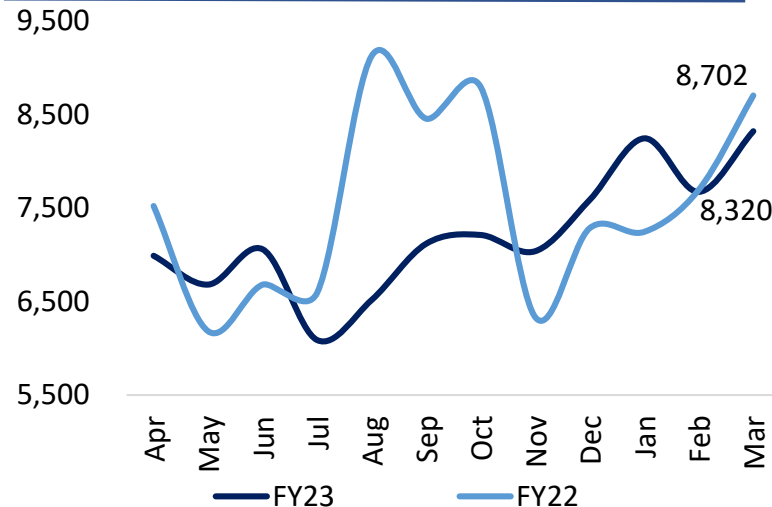
Linear Trend - Monthly Avg Price (₹/kwh)



Cleared Volume DAM (MUs)



Cleared Volume Total Volume (MUs)



FY23

- Day Ahead Market (DAM) prices were up **36% YoY** as the average tariff recorded for FY23 was ₹ **5.90/KWh** vs ₹**4.39/KWh** in the corresponding period last year
- The cleared volume in DAM was **51,186** MUs, down **21% YoY** and total cleared volumes were **86,523** MUs, down **5% YoY**

Q4 FY23

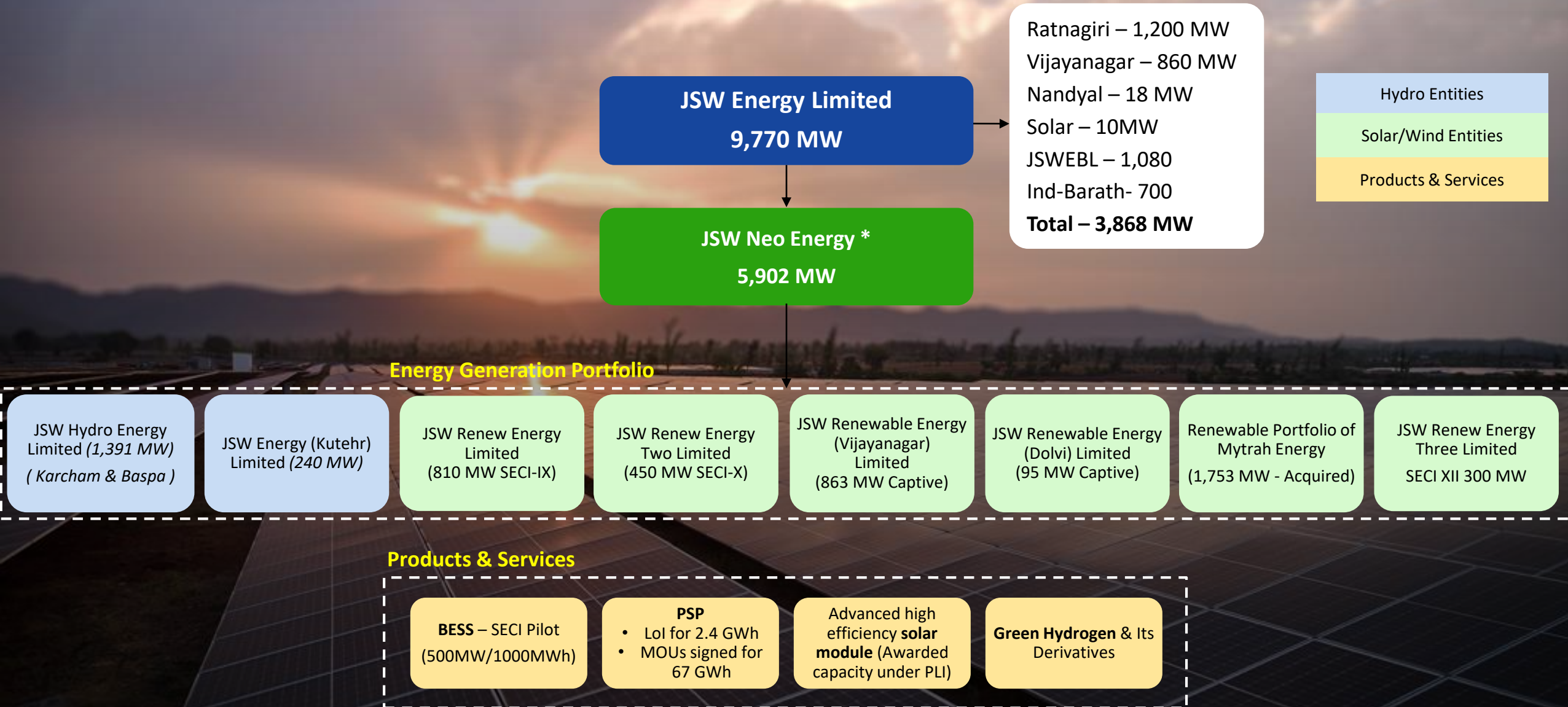
- DAM prices were up **15% YoY** as the average tariff recorded for FY23 was ₹ **6.15/KWh** vs ₹**5.35/KWh** in the corresponding period last year
- The cleared volume in DAM was **14,301** MUs, down **15% YoY** and total cleared volumes were **24,236** MUs, up **3% YoY**

Appendix



Hydro Power Plant - Turbine

JSW Energy – Broad Structure



Entity-wise Financial Results

Entity-wise Revenue from Operations				
Particulars in ₹ Cr	Q4 FY23	Q4 FY22	FY23	FY22
Standalone	1,647	1,081	5,739	3,643
JSW Energy (Barmer)	748	740	3,026	2,667
JSW Hydro Energy	186	812	1,328	1,856
JPTL	19	18	71	72
Consolidated*	2,670	2,441	10,332	8,167

Entity-wise EBITDA				
Particulars in ₹ Cr	Q4 FY23	Q4 FY22	FY23	FY22
Standalone	391	299	1,487	1,273
JSW Energy (Barmer)	244	330	908	1,032
JSW Hydro Energy	134	767	1,170	1,741
JPTL	18	16	70	68
Consolidated*	881	1,346	3,817	4,138

Operational Performance – Net Generation

Location		Capacity %	Net Generation			FY23	FY22	Change YoY %
			Q4 FY23	Q4 FY22	Change YoY %			
Ratnagiri (1,200 MW)	LT	89%	1,506	1,290	17%	5,123	5,270	-3%
	Total	100%	1,752	1,355	29%	5,713	5,514	4%
Barmer (1,080 MW)	LT	100%	1,730	1,608	8%	6,544	6,515	0%
Vijayanagar (860 MW)	LT	36%	615	770	-20%	2,434	2,482	-2%
	Total	100%	998	932	7%	3,550	3,115	14%
Nandyal (18 MW)	LT	100%	2	26	-93%	12	107	-89%
Total Thermal (3,158 MW)	LT	79%	3,853	3,694	4%	14,113	14,374	-2%
	Total	100%	4,482	3,920	14%	15,819	15,251	4%
Hydro (1,345 MW)*	LT	97%	403	439	-8%	5,510	5,465	1%
	Total	100%	403	439	-8%	5,595	5,520	1%
Solar (234 MW)**	LT	100%	149	5	NM	412	15	NM
Wind (27 MW)***	Total	100%	23	NA	NA	29	NA	NA
Mytrah (1,753 MW)****	Total	100%	11	NA	NA	11	NA	NA
TOTAL	LT	89%	4,438	4,137	7%	20,075	19,854	1%
	Total	100%	5,067	4,363	16%	21,866	20,787	5%

*Includes free power to HPSEB ** Solar capacity at Vijayanagar commencement since Apr-22, thus not included in Q4 FY22 ***SECI X Wind Capacity which has received part CoD under progressive commissioning started in Q3 FY23, thus not included in Q4 FY22; ****Mytrah Transaction consummated on 29th March 2023; Generation pertains to post acquisition period
LT : Long Term. NM : Not meaningful Figures rounded off to nearest units digit

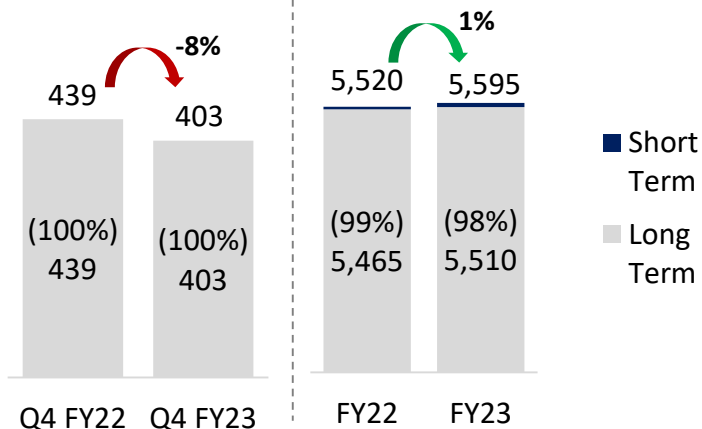
Operational Performance – PLF

PLF						
Location		Capacity	Q4 FY23	Q4 FY22	FY23	FY22
		%	%	%	%	%
Ratnagiri (1,200 MW)	LT	89%	71 (*98)	85 (*104)	60 (*87)	61 (*79)
	Total	100%	74 (*98)	57 (*69)	59 (*84)	57 (*73)
Barmer (1,080 MW)	LT	100%	82 (*87)	76 (*81)	77 (*80)	76 (*81)
Vijayanagar (860 MW)	LT	36%	99 (*100)	118 (*118)	98 (*98)	100 (*100)
	Total	100%	58 (*59)	54 (*55)	51 (*51)	45 (*45)
Nandyal (18 MW)	LT	100%	5 (*100)	74 (*100)	9 (*98)	75 (*99)
Total Thermal (3,158 MW)	LT	79%	79 (*94)	85 (*94)	72 (*85)	73 (*83)
	Total	100%	72 (*84)	63 (*69)	63 (*74)	60 (*68)
Hydro (1,345 MW)	LT	97%	14	15	49	48
	Total	100%	14	15	48	48
Solar (234 MW)	LT	100%	29	24	22	20
Wind (27 MW)	Total	100%	30	NA	30	NA

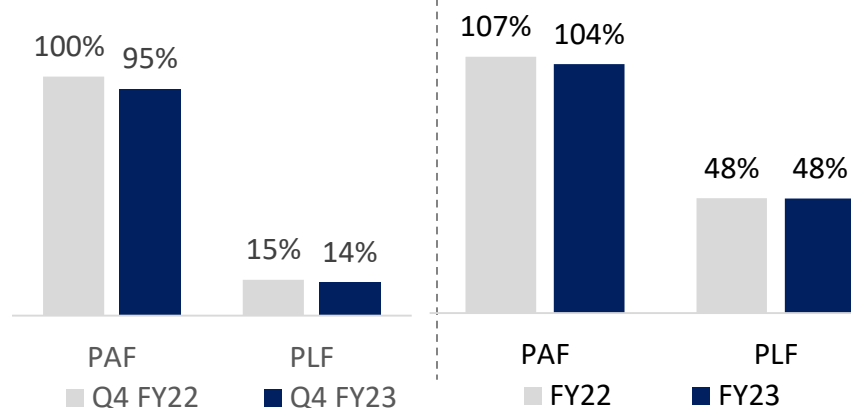
LT : Long Term; ST: Short Term * denotes Deemed PLF

Green Assets | Hydro Q4 FY23 Highlights

Net Generation (MUs)



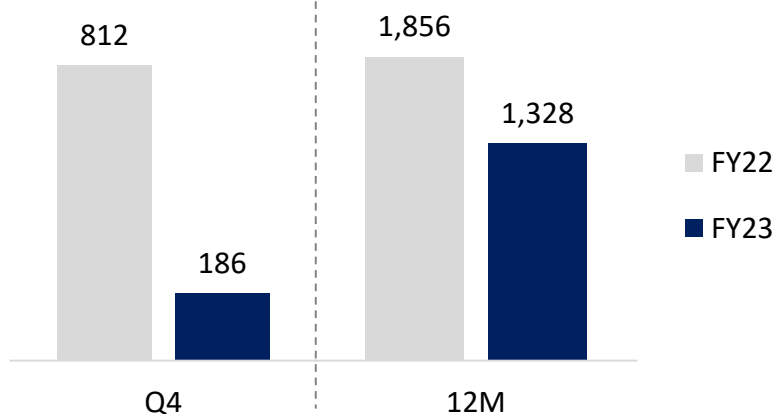
Hydro : PAF and PLF



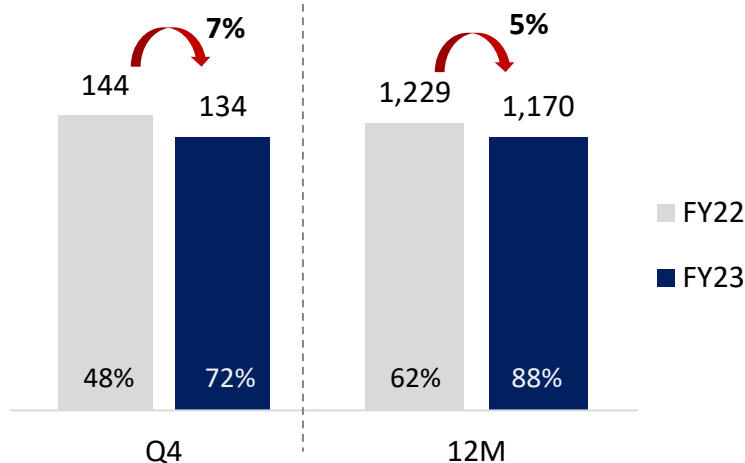
Operational Highlights

- Net generation at Hydro Assets (Karcham and Baspa) down 8% YoY due to lower water flow in Q4 FY23.
- Net Generation for FY23 up 1% YoY and continued to exceed the design energy
- Plant availability factor came at 95% in Q4 FY23 (104% for FY23)

Revenue from Operations¹ (₹ Cr)



Adj. EBITDA * (₹ Cr) and Margins ** (%)



Financial Highlights

- Total Revenue and EBITDA came lower YoY due to lower water flow in the quarter

¹ Hydro Assets include: Karcham-Wangtoo and Baspa. Revenue from Operations include impact from true-up at Karcham-Wangtoo

* EBITDA adjusted for one-time effects of true-up order at Karcham-Wangtoo. ** EBITDA Margins based on revenue excluding one-time effects of true-up order at Karcham-Wangtoo

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
Reported PAT	201	339	324	864	560	466	180	272
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	-	-
Cash PAT	510	610	631	643	813	681	489	587
Cash PAT (TTM)	1,940	1,899	2,097	2,395	2,697	2,767	2,625	2,570
Adjusted Net Worth**	11,529	11,475	11,830	12,688	12,952	13,491	13,446	14,177
Cash Returns on Net Worth (%)	17%	17%	18%	19%	21%	21%	20%	18%

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