

# Q1 FY24 Results Presentation

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July 14, 2023



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# Agenda

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**Q1 FY24 Highlights**

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**Operational & Financial Performance**

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**Segment Wise Performance**

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**JSW Energy – at Glance**

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**Safety & Sustainability**

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**Business Environment**

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**Appendix**

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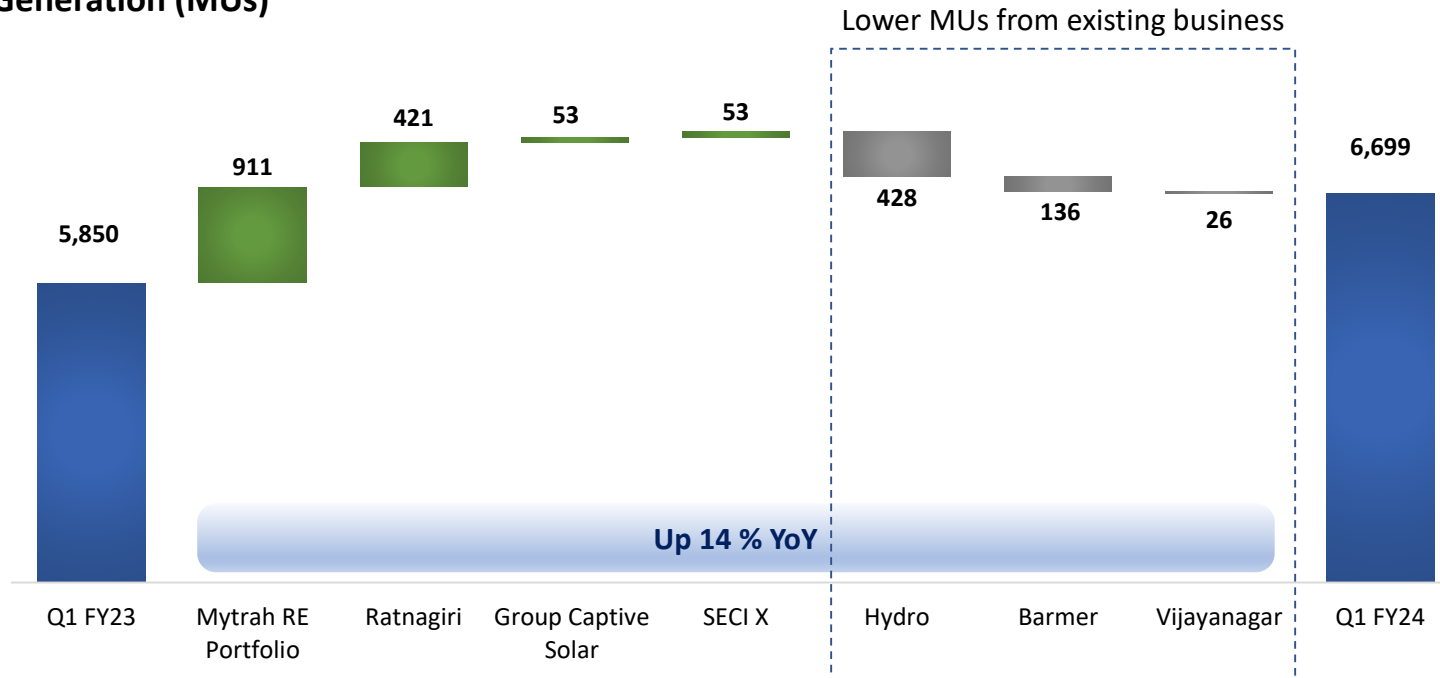
# Q1 FY24 Highlights (1/2)



## Operational Performance

- Overall Net Generation: Up by 14% YoY at 6.7 BUs driven by new RE capacities (including Mytrah) and higher generation at Ratnagiri, partly offset by lower generation at Hydro assets.
- Net Renewable Generation: Up by 35% YoY at 2.3 BUs due to RE capacity additions
- Net Long Term Generation: Up by 18% YoY driven by higher generation at Ratnagiri (Unit-1) and RE capacity additions

### Generation (MUs)



### Capacity charges to be compensated during the year

- Hydro generation impacted by lower water flow - Returns are based on plant availability and meeting design energy
- Barmer: scheduled maintenance, capacity charges to be recovered over the year

### Lower ST sales in Q1 FY24

- Vijayanagar: lower merchant sales

# Q1 FY24 Highlights (2/2)



## Consolidated Financial Performance

- EBITDA at ₹1,307 Cr up 18% YoY resulting in reported PAT of ₹290 Cr and operating cash PAT of ₹792 Cr  
On a sequential basis, EBITDA and PAT increased by 48% and 7% respectively
- Receivables (excl. Mytrah) improved 13% YoY while DSO stood at 58 days; healthy collection trend sustained
- Best in class Balance Sheet, Net Debt to Equity at 1.2x, Net Debt to (Proforma TTM) EBITDA at 4.7x Cash & Cash Equivalents<sup>1</sup> at ₹2,572 Cr



## Under construction – Generation Projects

- 2.0 GW Wind projects : **SECI X** project under progress with part CoD received for 130 MW as of Jun'23 and ~150MW currently; WTG foundation & balance of plant works in-progress for **SECI IX and Group Captive plant**
- 240 MW Kutehr HEP: (i) ~96% tunneling completed (92.5% in FY23) (ii) Spiral case commissioning for Unit 2 completed
- Ind-Barath TPP: Unit 1 turbine-generator inspection and restoration completed. Unit 1 commissioning expected by Oct-23 and Unit 2 by end of FY2024



## Mytrah RE Portfolio

- Total proforma net generation of Mytrah Portfolio stands at 911 MUs in the quarter, significant operational performance improvement realised
- 168 out of 178 WTGs restored in the quarter resulted in improved machine availability by 700 bps (YoY)
- Solar plant availability increased 70 bps YoY to 99%

# Operational & Financial Performance

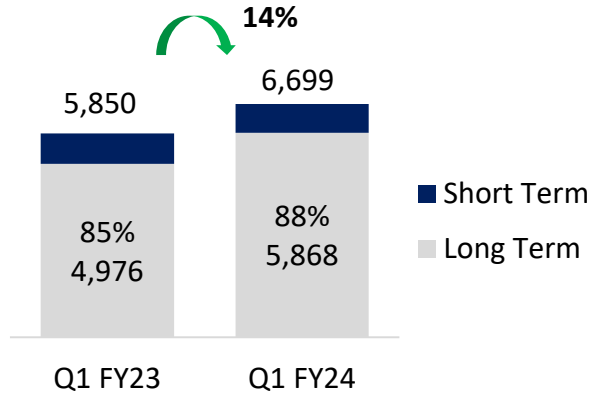


Sholtu Hydro Power Plant - Turbine

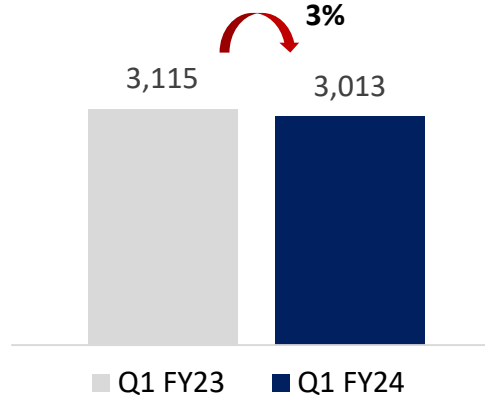


# Consolidated Performance

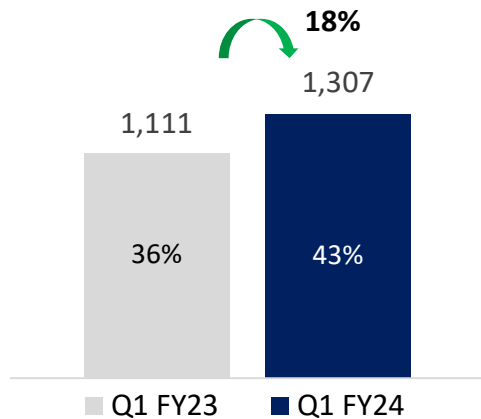
## Net Generation (MUs)



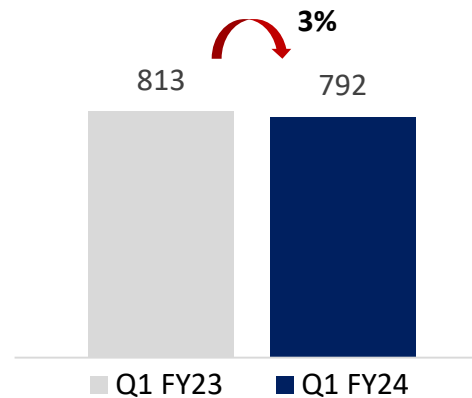
## Total Revenue (₹ Cr)



## EBITDA (₹ Cr) and Margins (%)



## Operating Cash Profit After Tax\* (₹ Cr)



**Strong EBITDA and Cashflow generation from Long-term portfolio**

## Operational Highlights

- **Overall Net Generation:** Up by 14% YoY at 6.7 BUs driven by Mytrah and higher generation at Ratnagiri, partly offset by lower generation at Hydro assets.
- **Net Renewable Generation:** Up by 35% YoY at 2.3 BUs due to RE capacity additions and acquisition of Mytrah RE portfolio
- **Net Long Term Generation:** Up by 18% YoY

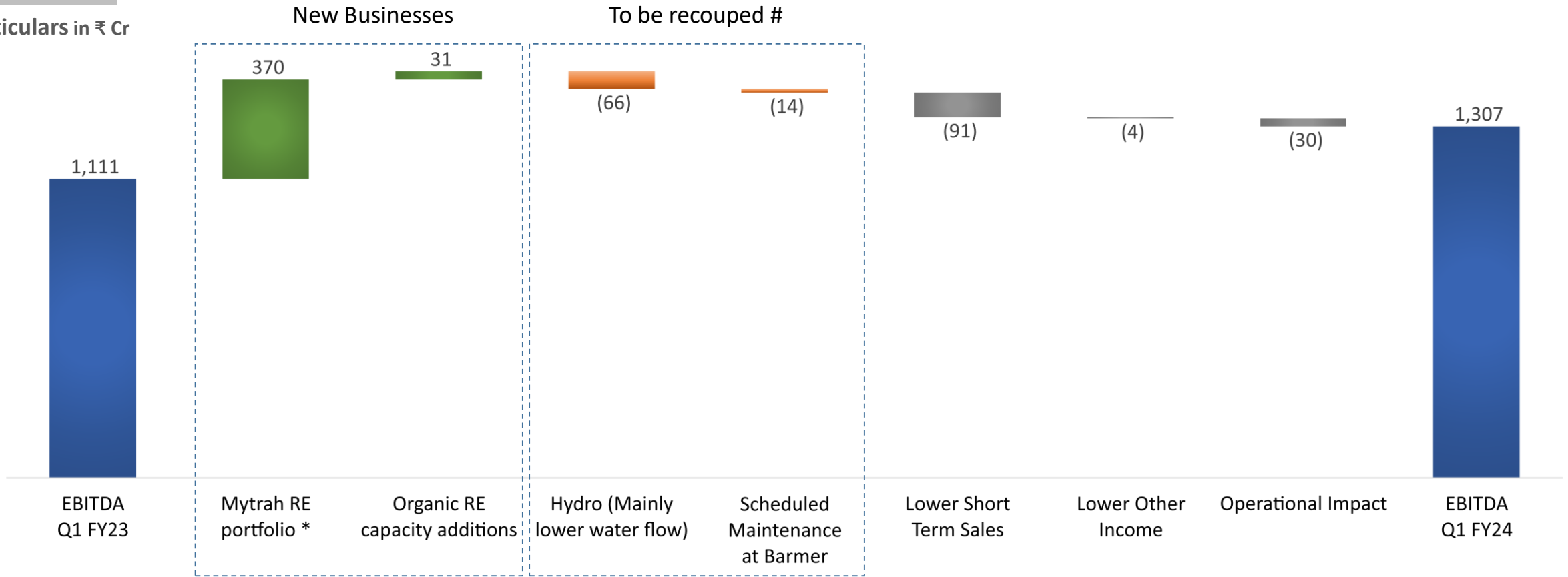
## Financial Highlights

- **Total Revenue:** Down by 3% YoY to ₹3,013 Cr as incremental revenue from Mytrah and RE capacity additions was offset by lower realization in thermal on account of decline in coal prices
- **EBITDA** at ₹1,307 Cr in Q1 FY24 was up 18% YoY due to contribution from RE assets
- **Cash PAT** generation from operational assets stood at ₹792 Cr

# EBITDA Bridge

Q1 FY24

Particulars in ₹ Cr



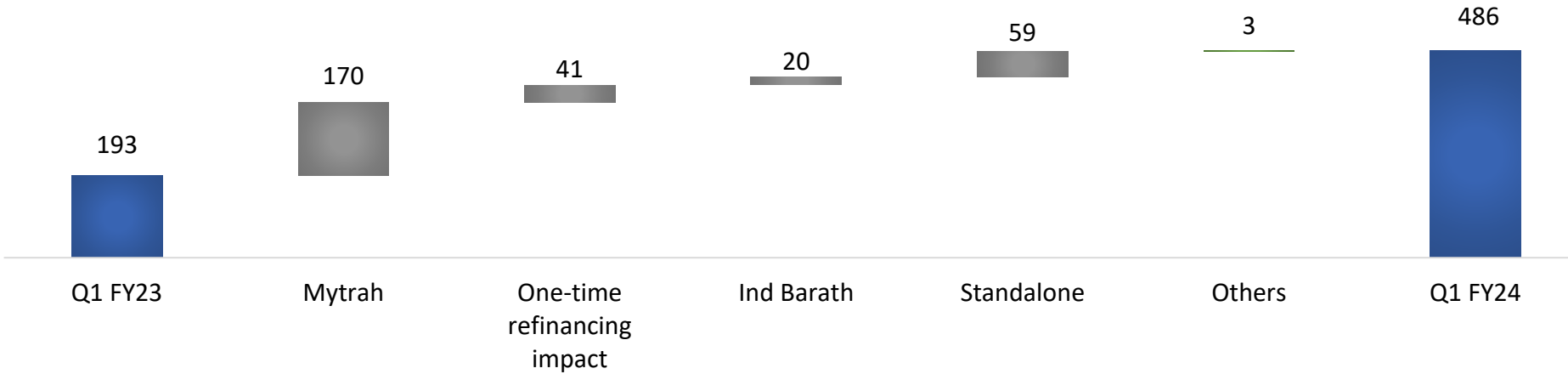
**Short term volumes in Q1 FY23 accounted for 50% of the full year merchant volumes**  
**Short term sales lower YoY due to unfavorable base effect**

- \* Mytrah's Proforma EBITDA in Q1 FY24 stood at ₹ 400 Cr, since 2 SPVs were consolidated during the quarter accounting consolidation impact for 1QFY24 is pro-rata
- # Subjected to meeting design energy generation and plant availability for Hydro, and plant availability factor for Barmer (which has consistently been met in every year of operations)



# Finance Cost & PAT Movement

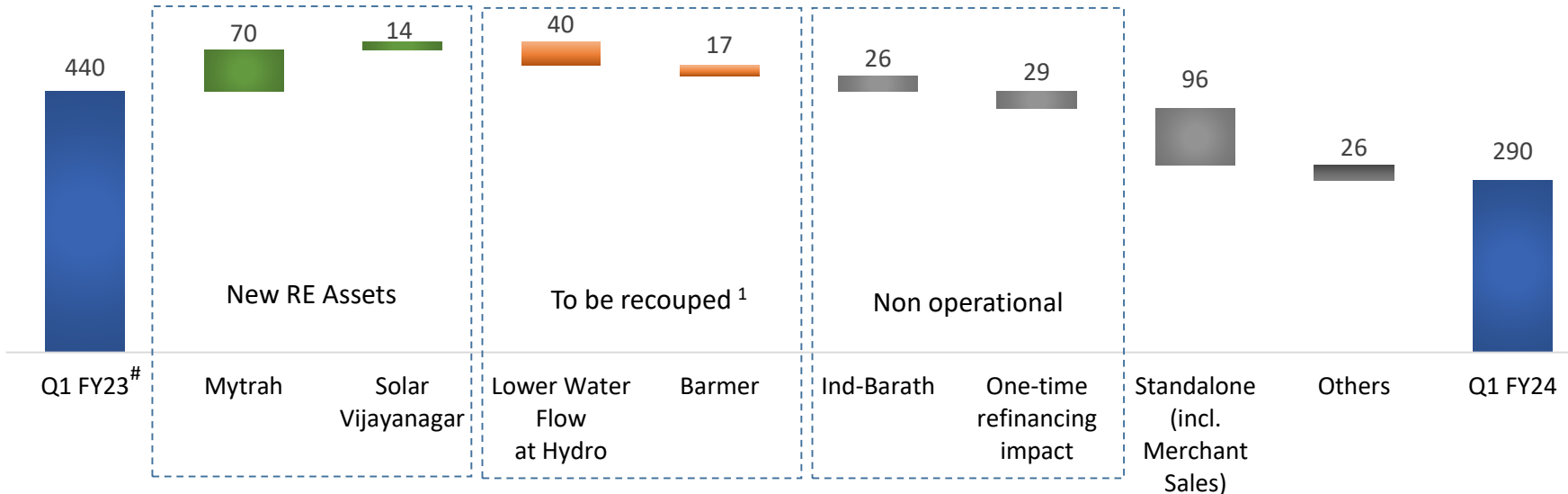
Finance Cost (YoY; ₹ Cr)



## Finance Cost

- Mytrah re-financing completed
- One - off refinancing impact in the quarter

Profit After Tax (YoY; ₹ Cr)



## PAT

- PAT from Mytrah and Green field RE assets came robust
- Offset by
  - non operational expenses
  - lower fixed cost recovery for Barmer and Hydro, likely to be recouped
  - lower short term sales

# Consolidated Financial Results

Particulars in ₹ Crore	Q1 FY24	Q1 FY23
Total Revenue	<b>3,013</b>	3,115
EBITDA	<b>1,307</b>	1,111
<i>EBITDA Margin(%)</i>	<b>43%</b>	36%
Finance Cost	<b>486</b>	193
<i>Interest Cost</i>	<b>445</b>	193
<i>Exceptional</i> <sup>1</sup>	41	-
Depreciation	<b>398</b>	289
Exceptional income/(expense)	<b>0</b>	120
Profit Before Tax	<b>424</b>	749
Profit After Tax	<b>290</b>	560
Profit After Tax (Adjusted)	<b>290</b>	440
Cash Profit After Tax <sup>2</sup>	<b>743</b>	813
Diluted EPS <sup>3</sup> (₹)	<b>1.76</b>	3.40

# Net Debt Movement

Particulars in ₹ Cr

- Under-Construction
- Mytrah
- Operational Projects

Leverage	Net Debt (₹ Cr)	EBITDA (TTM; ₹ Cr)	ND/EBITDA (x)
Operating	10,146	3,639	2.8x
Mytrah (Normalised EBITDA)	8,222	1,650	5.0x
<b>Combined (Excl. Under construction)</b>	<b>18,368</b>	<b>5,289</b>	<b>3.5x</b>

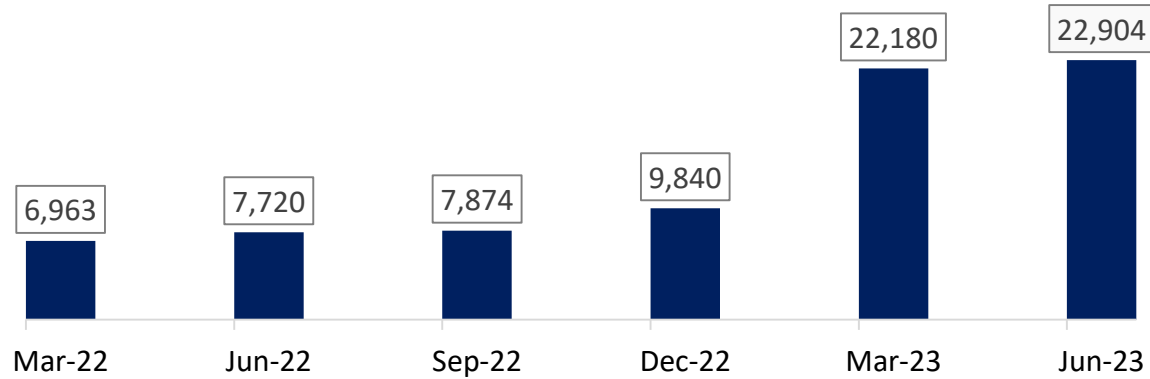


**Combined ND/EBITDA is within the guided range of 3.5x-4.0x**

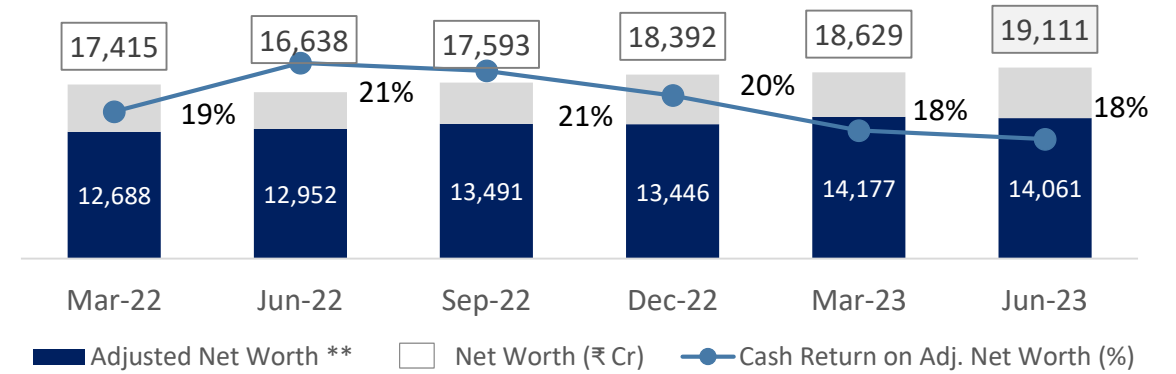


# Superior Financial Risk Profile

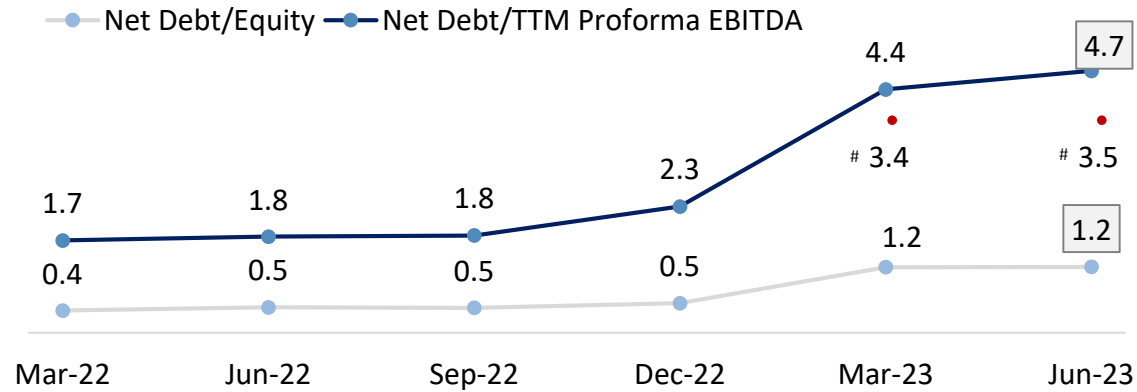
### Net Debt (₹ Cr)



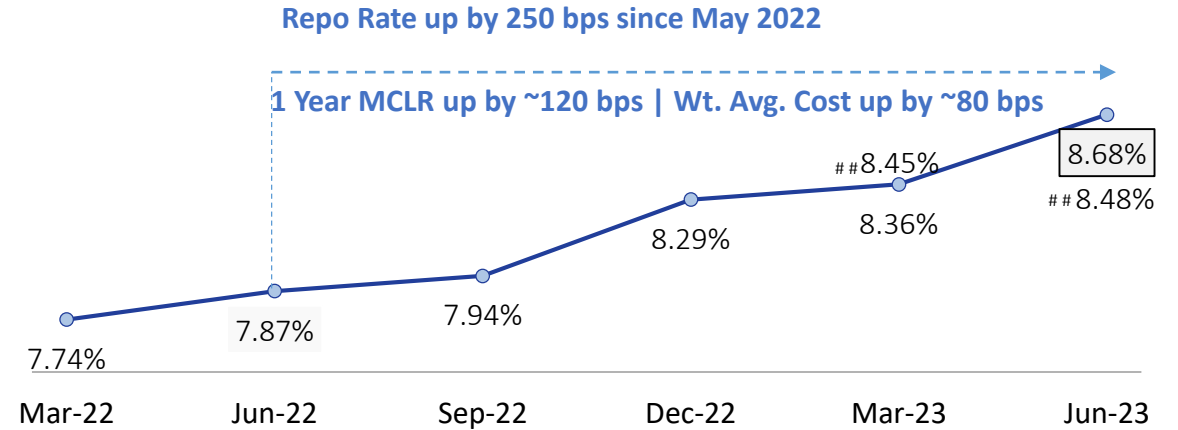
### Net Worth (₹ Cr)\* & Cash Returns (%)



### Leverage Ratios



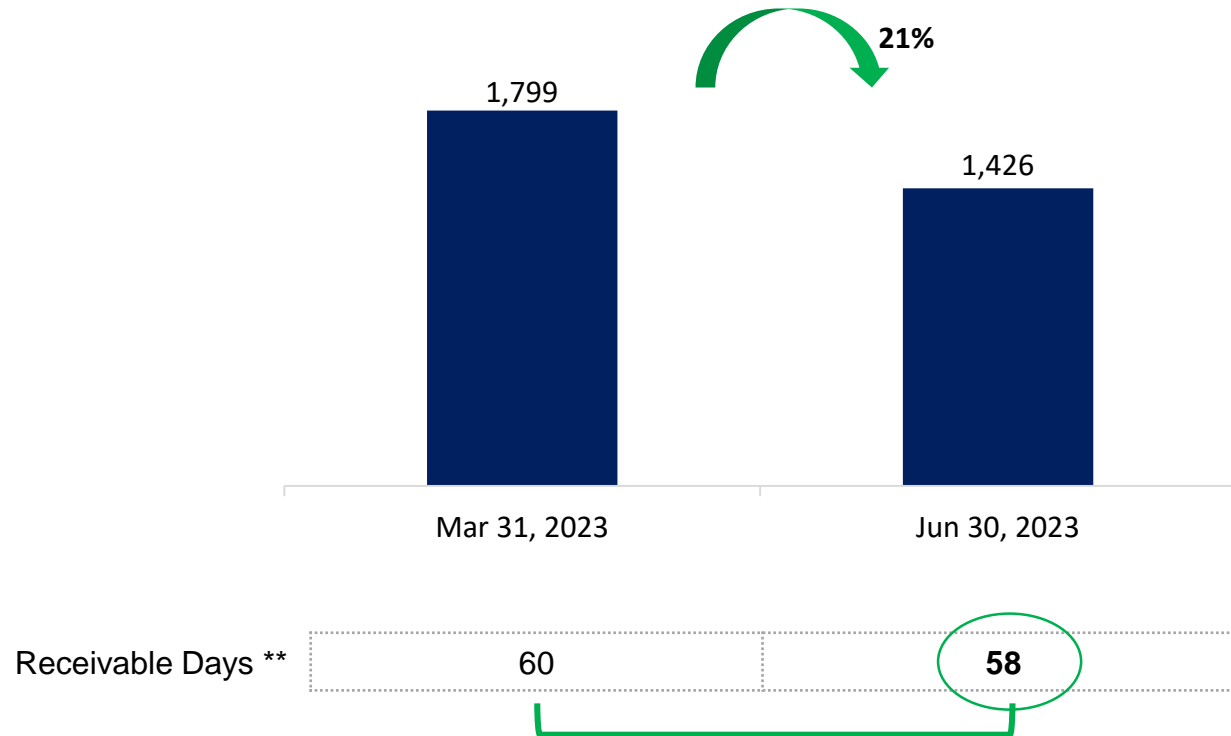
### Wt. Average Cost of Debt



**Robust balance sheet & best-in-class financial metrics**

# Healthy Trade Receivables

## Consolidated Trade Receivables Excluding Mytrah\* (₹ Cr )



## Operational Highlights

- Receivables (in ₹ Cr) reduced by 21% sequentially
  - Receivables days (excl. Mytrah) further improved to 58 days in Q1 FY24
- 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

# Segment Wise Performance





# Thermal Assets | Q1 FY24 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
<b>Installed Capacity</b>	1,200 MW	1,080 MW	860 MW
<b>PPA tied</b>	1,095 MW	1,080 MW	338 MW
<b>Net Generation (Mus)</b>	LT → 1,663 MUs (38% YoY)	1,418 MUs (-9% YoY)	530 MUs (-3% YoY)
	100% → 1,939 MUs (28% YoY)	1,418 MUs (-9% YoY)	1,074 MUs (2% YoY)
<b>PLF/ (Deemed PLF)</b>	LT → 77%/(99%)	67%/(71%)	85%/(87%)
	100% → 81%/(100%)	67%/(71%)	62%/(63%)

## Under Construction



**Ind - Barath**

700 MW

Located in coal belt

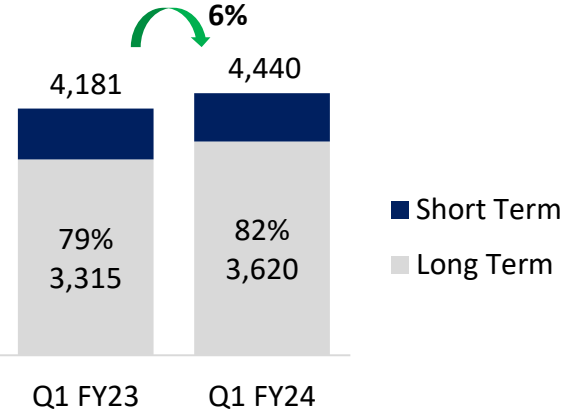
Easy access to water

Expected commissioning of both units in FY24

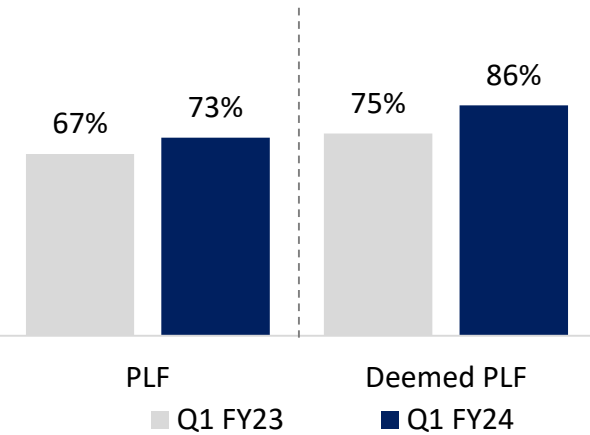
~80% of Installed Thermal Capacity Tied-up under Long-Term PPA

# Thermal Assets | Q1 FY24 Highlights (2/2)

## Net Generation (MUs)



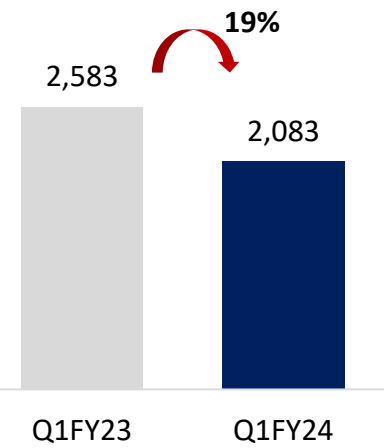
## Thermal : PLF – long term



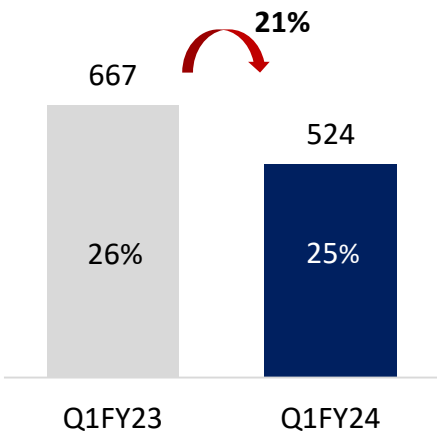
## Operational Highlights

- **Total Net Generation** +6% YoY at 4.4 BUs, supported by higher generation at Ratnagiri partly offset by lower generation at Barmer plant
- **Net LT generation** +9% YoY at 3.6 BUs, driven by Ratnagiri (Unit-1) partly offset by lower LT volumes at Barmer plant
- **LT PLF** increased to 73% in Q1 FY24 from 67% in Q1 FY23

## Segmental Revenue from Operations (₹ Cr)



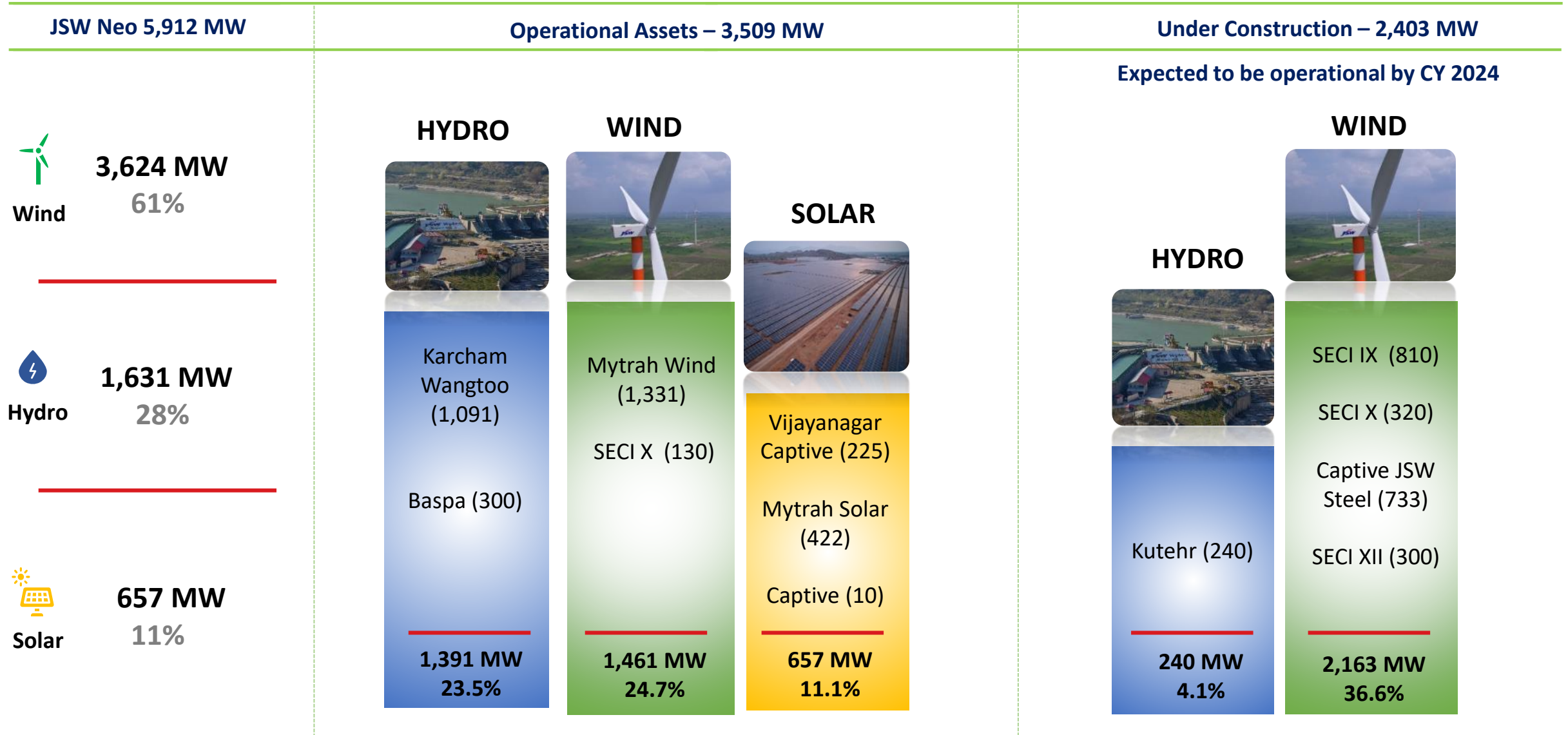
## EBITDA Excl. Other Income (₹ Cr) and Margins (%)



## Financial Highlights

- Total operating revenue at ₹2,083 Cr decreased by 19% YoY on account of lower realizations (fuel cost pass through) and lower merchant volumes despite an increase in generation
- EBITDA declined to ₹524 Cr due to lower merchant contribution in this quarter

# Renewable Assets | Presence across all modes of generation

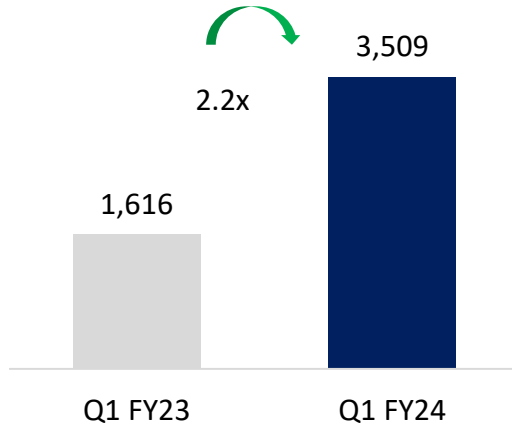


All under construction projects are tied-up with long term PPA

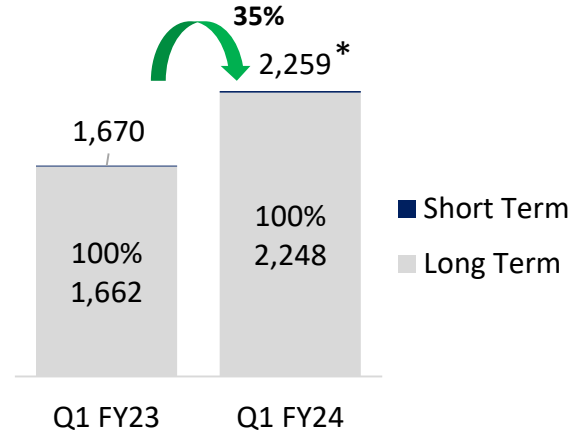


# Renewable Assets | Q1 FY24 Highlights

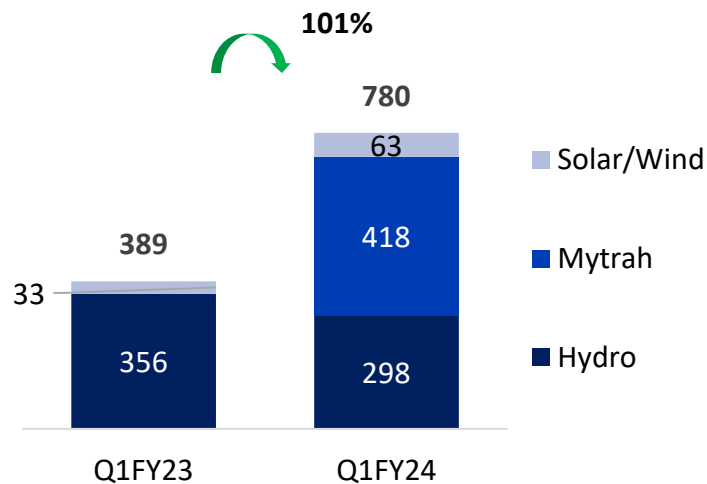
## Installed Green Capacity (MW)



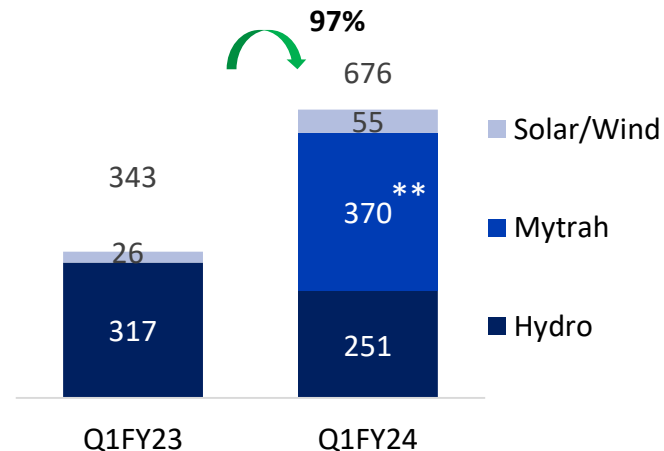
## Net Generation (MUs)



## Segmental Revenue from Operations (₹ Cr)



## EBITDA Excl. Other Income (₹ Cr)



## Operational Highlights

- Net generation +35% YoY to 2.3 BUs driven by capacity additions while lower waterflow impacted the generation at Hydro assets
  - Solar assets (excl. Mytrah) generated 150 MUs in Q1 FY24 at average CUF of 29%
  - SECI X (130MW, part commissioned) generated 53 MUs at a CUF of 23%

## Financial Highlights

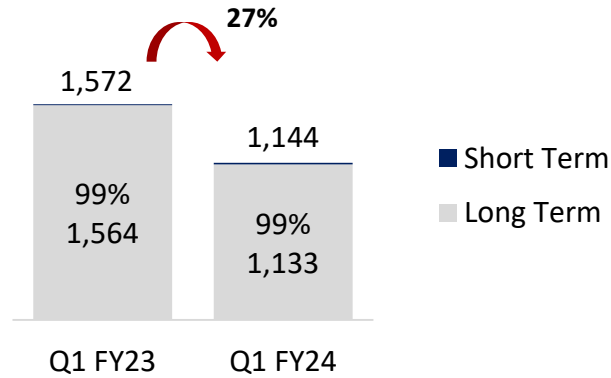
- Total operating revenue doubled to ₹780 Cr driven by Mytrah and greenfield RE assets partly offset by lower Hydro revenue
- Operating EBITDA at ₹676 Cr was driven by contribution from Mytrah and RE capacity expansion

\* Includes proforma generation of 2 SPVs of Mytrah, which were consolidated during the quarter

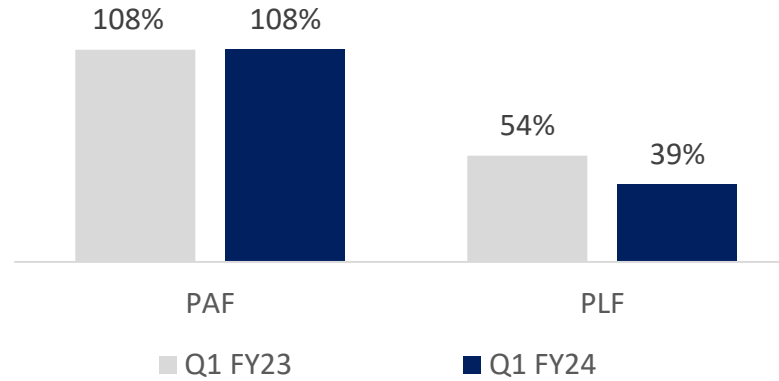
\*\*Proforma EBITDA in Q1 FY24 stood at ₹400 Cr, since 2 SPVs were consolidated during the quarter accounting consolidation impact for 1QFY24 is pro-rata

# Renewable Assets | Hydro Q1 FY24 Highlights

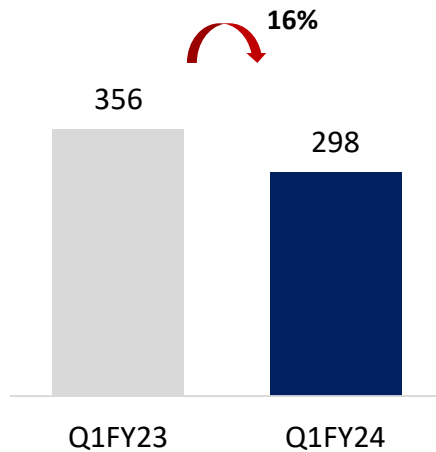
## Net Generation (MUs)



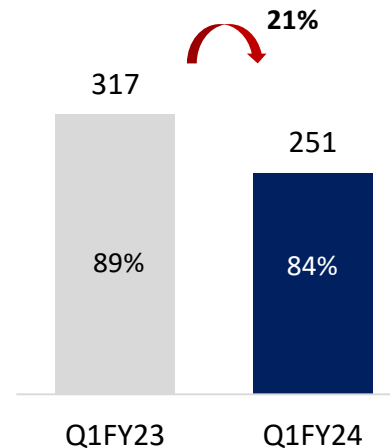
## Hydro : PAF and PLF



## Segmental Revenue from Operations (₹ Cr)



## EBITDA Excl. Other Income (₹ Cr) and Margins (%)



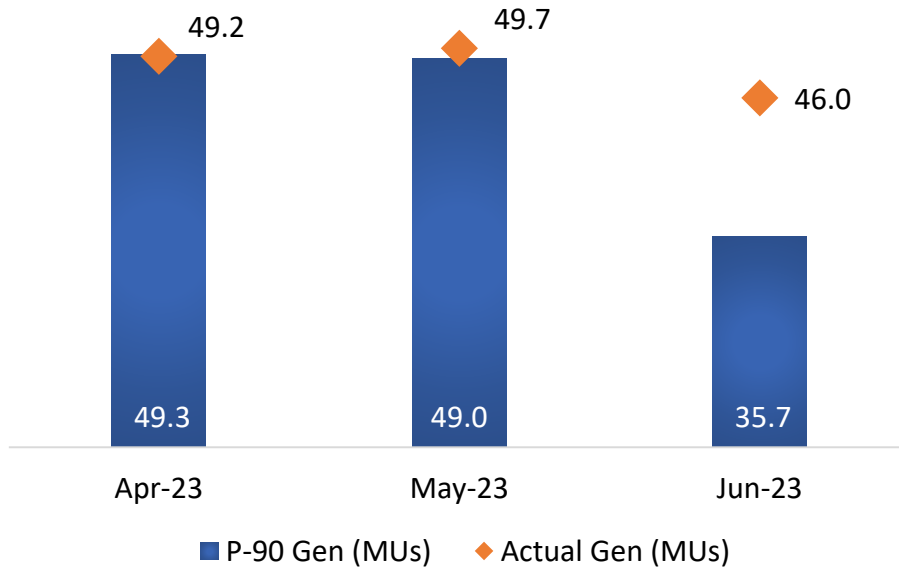
### Operational Highlights

- Net generation at Hydro Assets (Karcham and Baspa) down due to lower water flow during the quarter.
- Plant availability factor at 108% remains significantly above the normative PAF

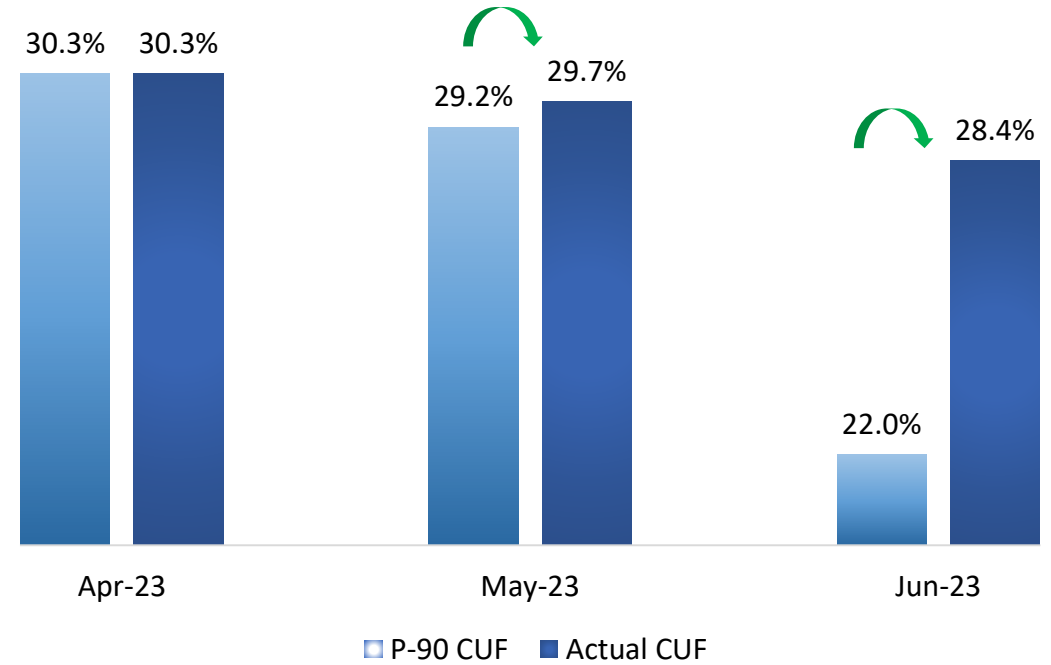
### Financial Highlights

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

## P-90 vs Actual Generation



## P-90 vs Actual CUF

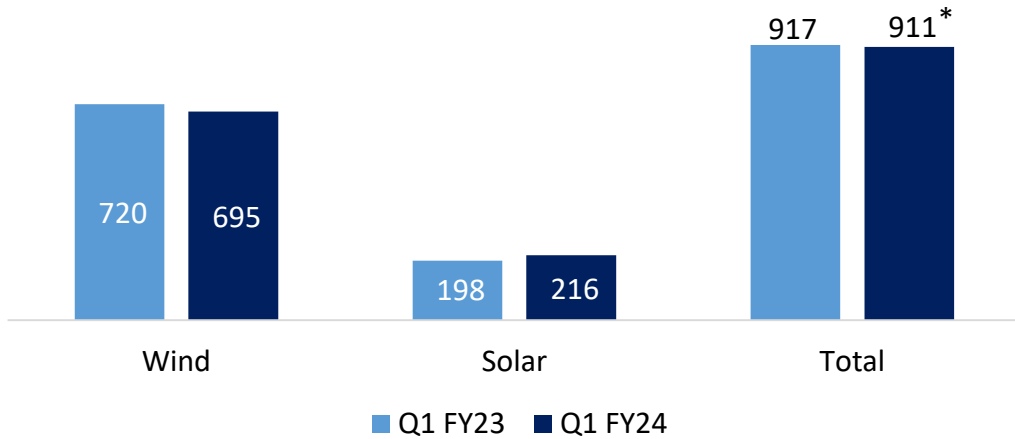


**Generation remained consistently above P-90 levels in the quarter**

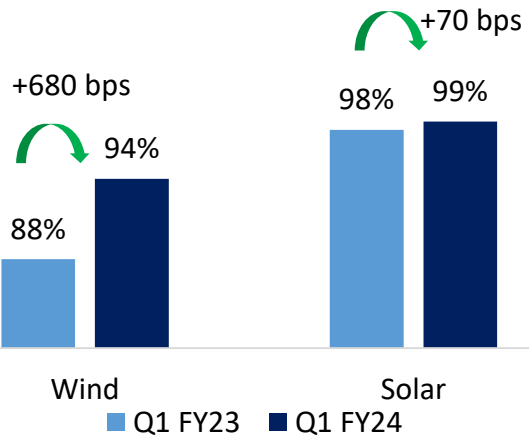


## Operational Highlights

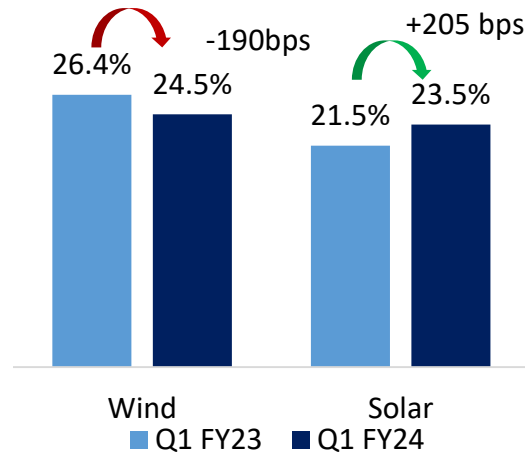
### Generation (MUs)



### Machine/Plant Availability



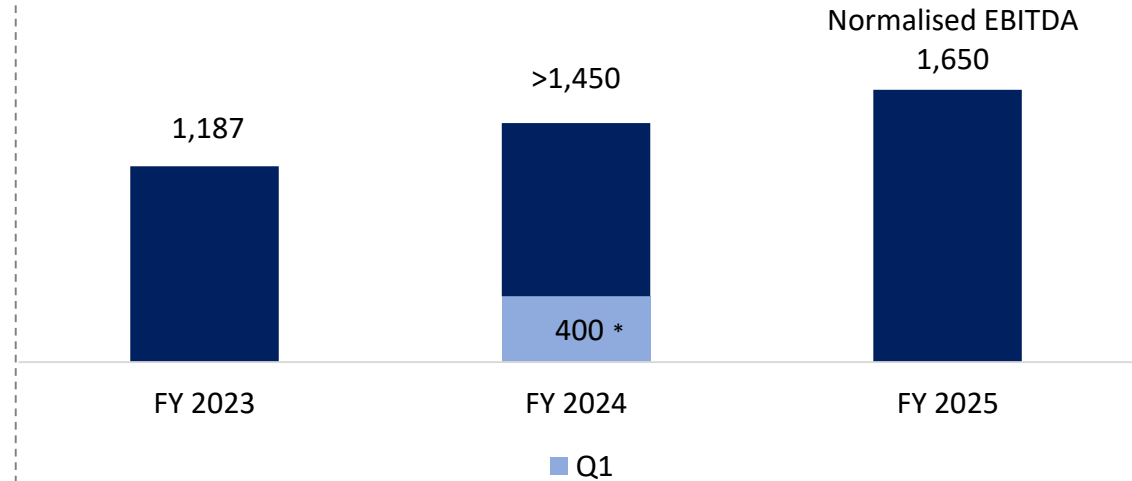
### CUF (%)



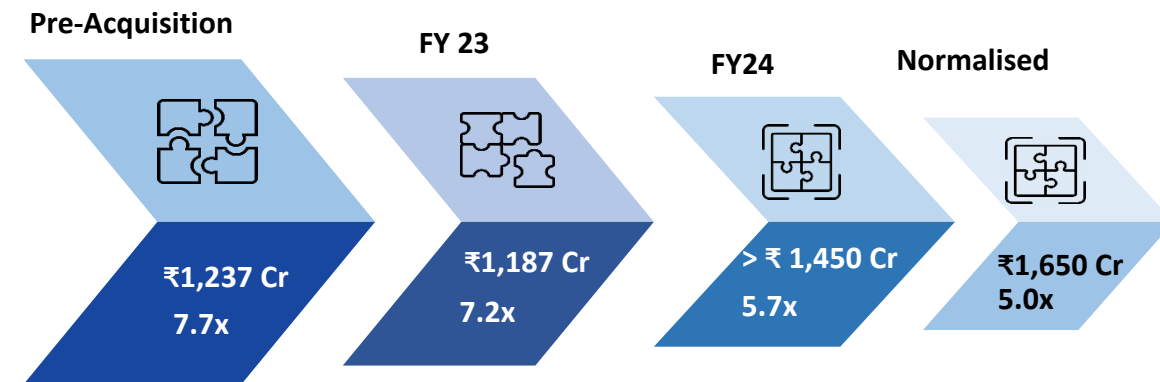
Targeting 99% MA & GA exit run rate in Q2 FY24

## Financials Highlights

### Mytrah EBITDA (₹ cr)



### Mytrah Net Debt/EBITDA



# JSW Energy at a Glance



**Towards Integrated and Sustainable Growth**

# JSW Energy – 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

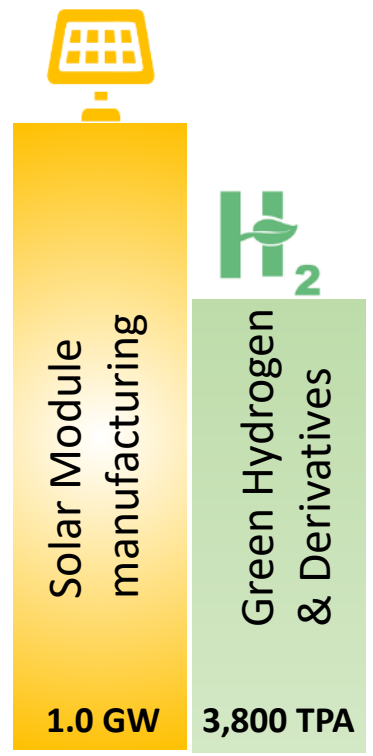
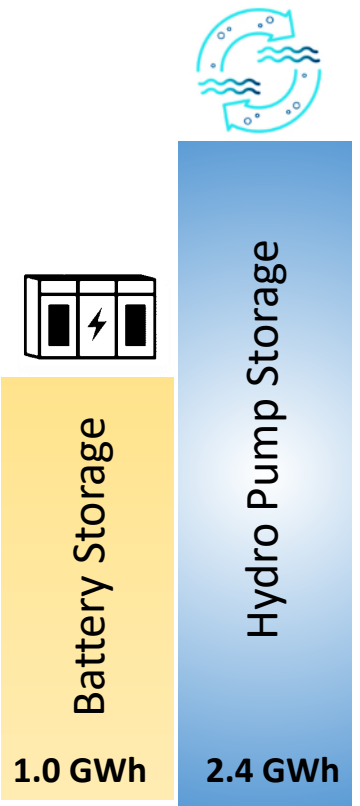
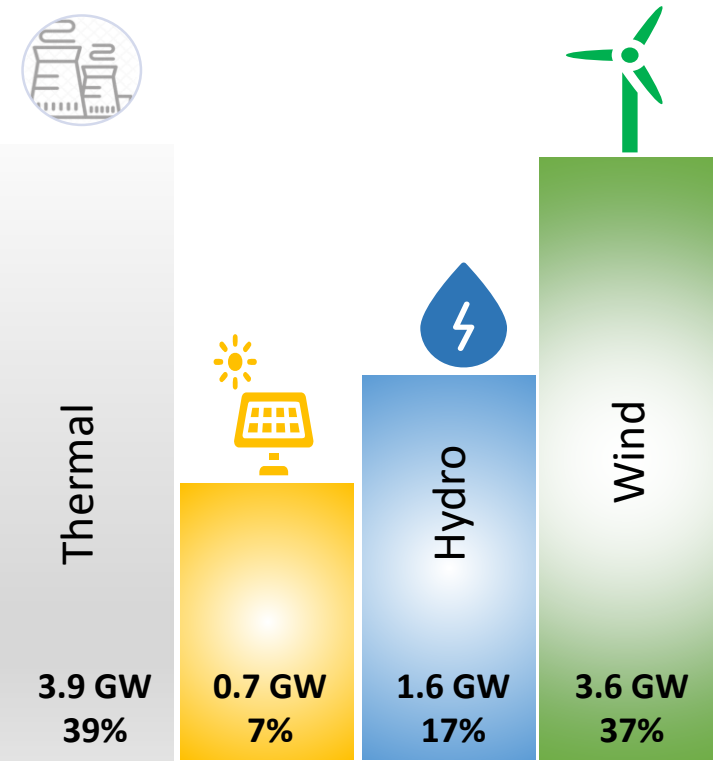
## Power Generation | Energy Storage | Energy Products & Services

### 9.8 GW Installed Capacity by CY24

### 3.4 GWh of locked in capacity

### Solar Module & Green H2

RE 5.9 GW  
Thermal 3.9 GW



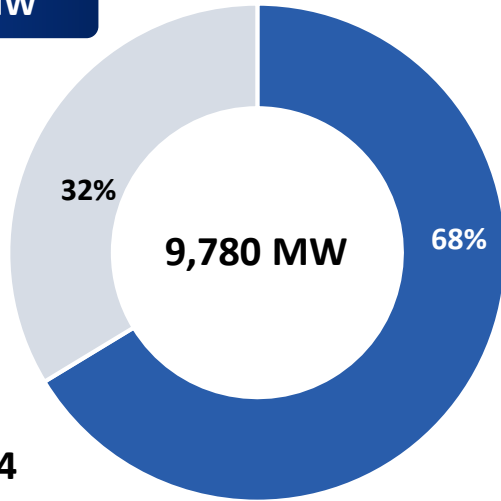
# Well Diversified Portfolio – Focused on Maximising Cash Returns

## Capacity Breakdown

**Generation 9,780 MW**

**Under-construction  
3,103 MW**

Wind 2,163 MW  
Thermal 700 MW  
Hydro 240 MW



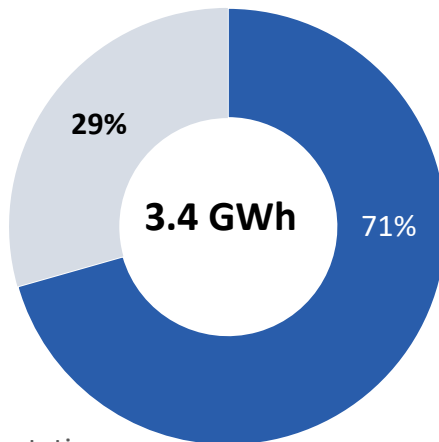
**Installed 6,677 MW**

Thermal 3,158 MW  
Wind 1,461 MW  
Hydro 1,391 MW  
Solar 667 MW

**Commissioned by CY24**

**Storage 3.4 GWh locked in**

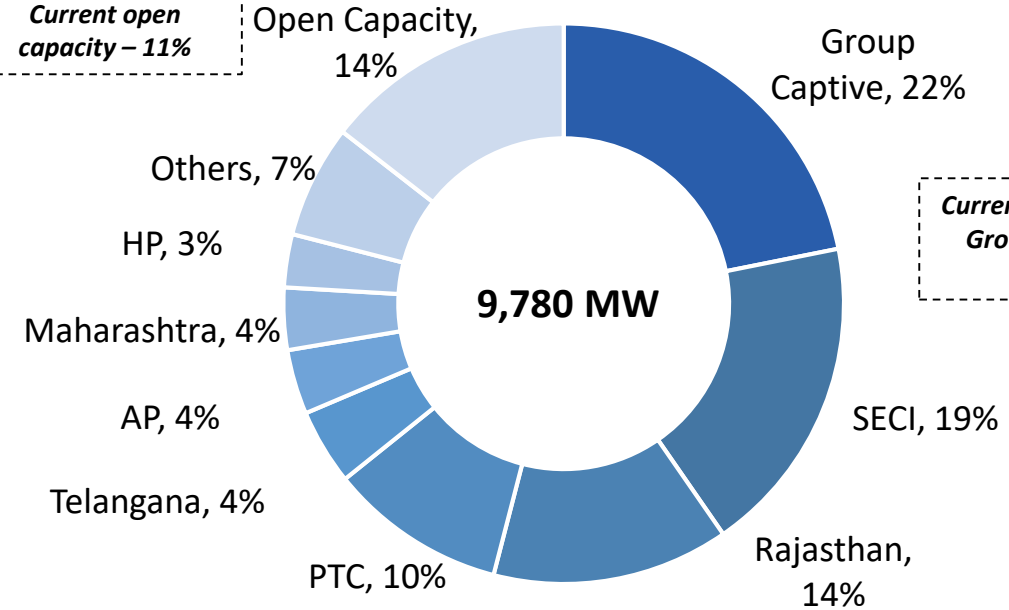
**BESS  
1.0 GWh**



**Hydro PSP  
2.4 GWh**

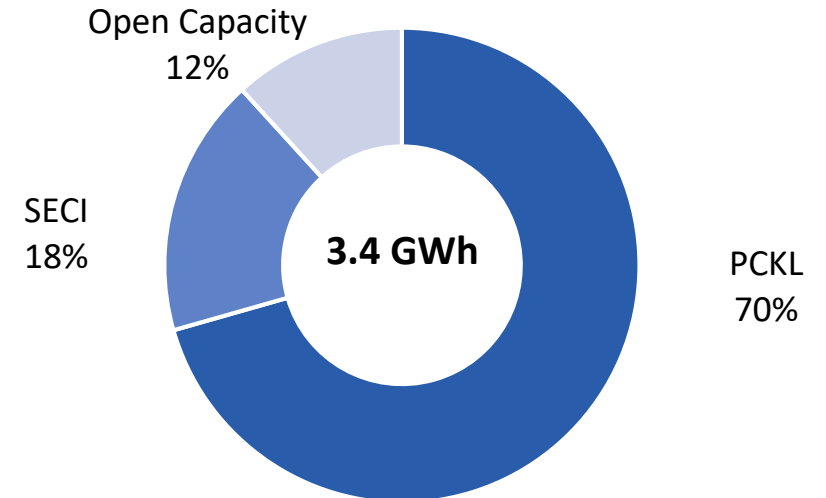
## Diversified Offtakers

*Current open capacity – 11%*



*Current Exposure to Group Captive - 21%*

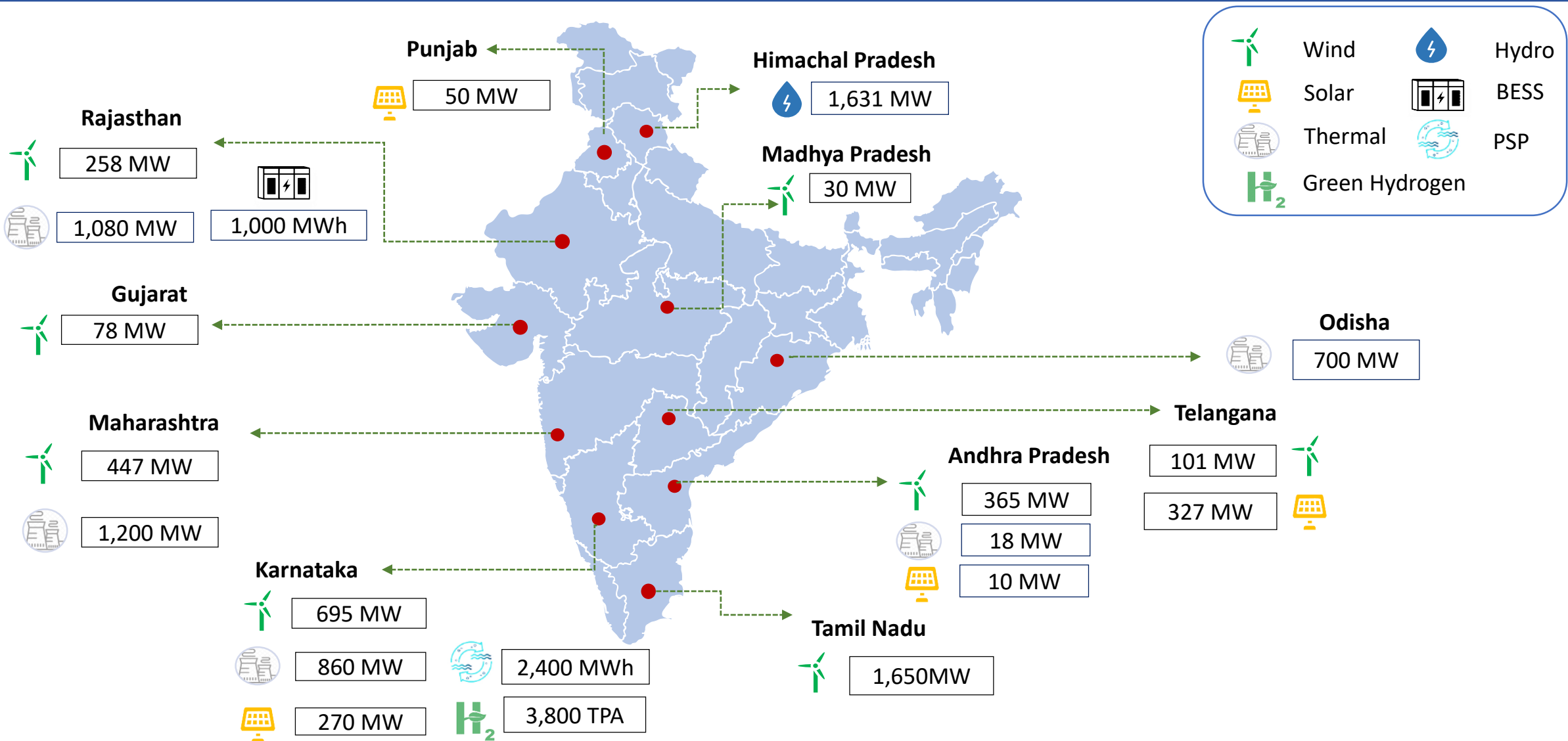
**Open Capacity  
12%**





# Developed a Pan India Footprint of Diverse Asset Base

Operational Capacity by CY 24 (9,780 MW)



• Map of India representation – scaling may not be accurate

# Strategy 2.0 (2023-2030) – at glance

1 GW/ annum

## PV Module

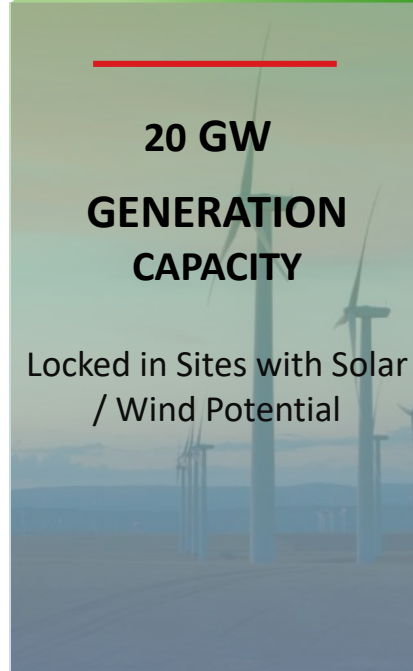
Solar Module manufacturing (W-C-M) under PLI scheme, to be operational in 2025



Forward integration of RE generation

20 GW GENERATION CAPACITY

Locked in Sites with Solar / Wind Potential



Backward Integration To PV modules

40 GWh/ 5GW

## ENERGY STORAGE

Pump Hydro Storage

Battery Energy Storage



~3,800 TPA

## ELECTRONS TO MOLECULES

Green Hydrogen Production, plant to be operational in 2025

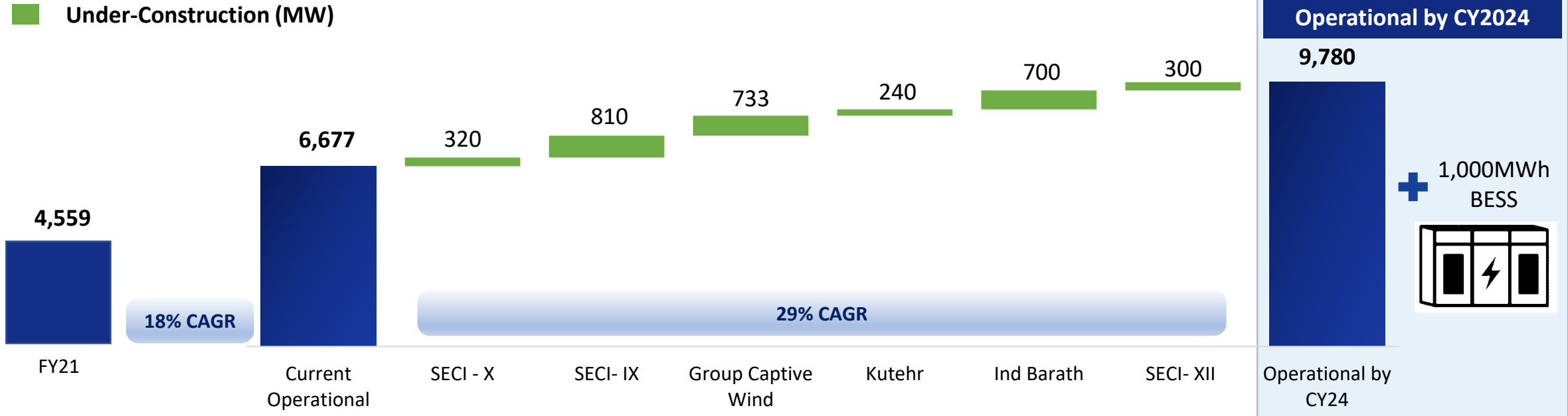


Growth driven by internal accruals

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

Balance Sheet Size to grow at 22% CAGR

## Under Construction 3.1 GW, to be Commissioned by CY24



Plant (MW)	Commissioning	PPA	Capital Expenditure
<b>SECI IX (810)</b>	Progressively from Q2 FY24	25- year; SECI	Total: ₹19,360 Cr Committed : ~₹16,832 Cr Spent: ~₹9,162 Cr
<b>SECI X (450)</b>	Progressively (130 MW Commissioned)	25- year; SECI	
<b>Group Captive - JSW Steel (958)</b> 225MW Solar operational	Progressively from Q2 FY24	25- year; JSW Steel	
<b>Kutehr HEP (240)</b>	24-Sep	35- year; Haryana Discom	
<b>Ind-Barath (700)</b>	Unit 1 by Oct 23, Unit 2 by March 24	-	
<b>SECI XII (300)</b>	25-Mar	25- year; SECI	
			~₹ 2,200 Cr

# Safety & Sustainability





# Continued Focus on Health & Safety Excellence

All Figures are for Q1 FY24



## Zero severe injuries/fatalities

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



## 83% of contractors covered by JSW CARES audit

18 Contractors achieve 5 Star rating & 4 contractors achieve 4 Star and overall 72% contractors are 3 star and above, in a stringent Internal Safety Assessment and evaluation.



## 19,000+ Cumulative Safety Observations Resolved

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



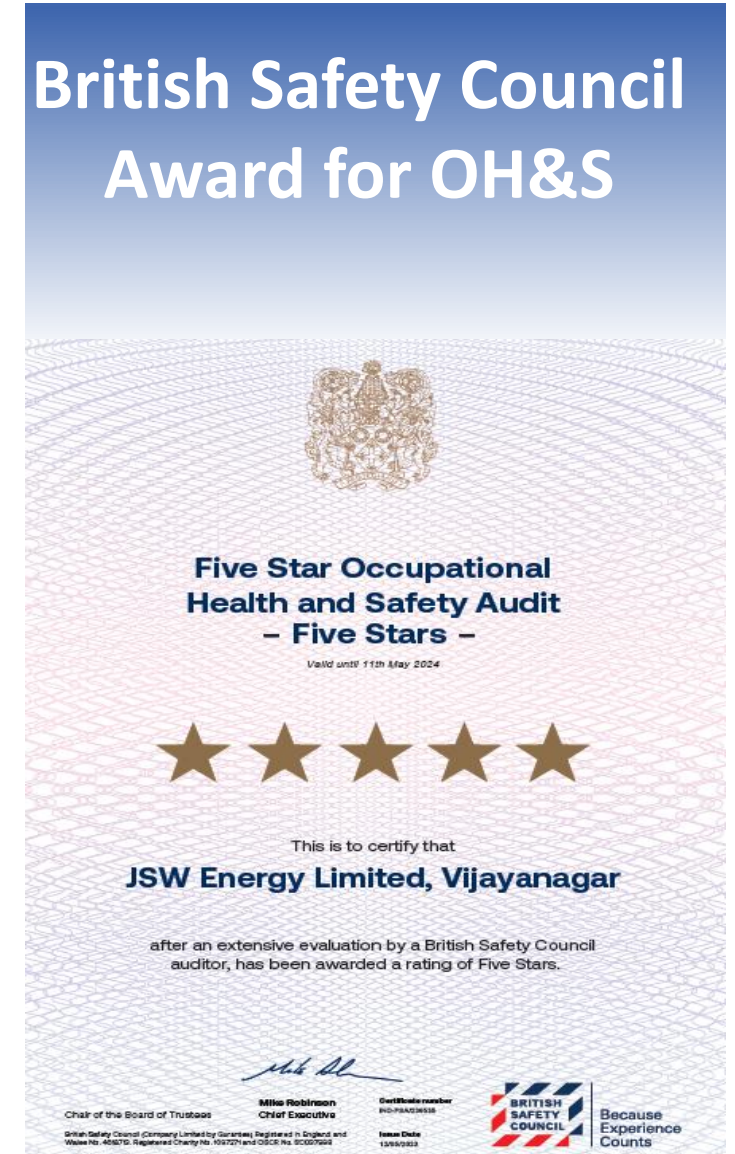
## Training & Capacity Building at all locations

- ✓ First Aid, CPR and Basic Life support training (AED) completed at JSW Hydro Energy for Employees
- ✓ Awareness & safety Training for Lifting Tools & Tackles to associate workmen at Ratnagiri plant
- ✓ Hot work and LDO fire suppression training for Contractor workmen at Barmer plant
- ✓ Fire fighting training given to workmen of all critical functions at all locations



## Enhancing Safety for Employees, Contractors & Community

- ✓ Mock drill conducted for leakage in caustic bulk storage tank at Barmer plant
- ✓ Awareness session on tuberculosis by Bellary District Health department at Vijayanagar Plant
- ✓ Program to raise awareness on the harmful & deadly effects of Tobacco use on World No Tobacco Day at Ratnagiri Plant
- ✓ A Mock Drill for unforeseen situation, rescue and life safety at Karcham Dam with DDMA, HHG and HP Police QRT at JSW Hydro Energy





# Sustainability: Framework and Policies

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

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

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

<b>Aligned to National &amp; International Frameworks</b>				

## Governance & Oversight by Sustainability Committee

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

## ESG Ratings – best amongst peers

CDP\* : A- (Leadership Level)

Sustainalytics: 23.9 (Medium Risk)

FTSE4Good Index constituent

## Carbon Neutrality by 2050

	Committed to set science based targets to keep global warming to 1.5°C under SBTi
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## Integrated Reporting since FY19



# Sustainability: Targets and Strategy

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

# Engaging Leading Knowledge Partners

## Current Status

	<ul style="list-style-type: none"> <li>• Studies to identify climate change related physical and transition risks, opportunities and financial impacts</li> <li>• Evaluation based on Governance, Strategy, and Risk Management</li> <li>• Best practices and peer comparison</li> </ul>	<ul style="list-style-type: none"> <li>• Pre Final Report is under preparation and is expected to be completed in the current quarter</li> </ul>
<p><b>Biodiversity &amp; Ecosystem</b></p>	<ul style="list-style-type: none"> <li>• Phase 1 -Gap assessment and risk mapping using global biodiversity and TNFD* framework</li> <li>• Phase 2 –NNL* studies based on site-wise baseline assessment</li> <li>• Group level No Net Loss Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Review of the draft report is under progress. Final discussion with consultant &amp; finalization of report in the current quarter</li> </ul>
<p><b>Supplier Assessment</b></p>	<ul style="list-style-type: none"> <li>• Identification of risks associated with critical suppliers based on ESG scores from supplier assessment results</li> <li>• Bridging ESG gaps via training and awareness sessions</li> <li>• On-site audit via third party consultants</li> </ul>	<ul style="list-style-type: none"> <li>• Supplier Assessment is in progress in phase wise manner, assessment based on ESG parameters</li> <li>• Training and awareness sessions for the high risk suppliers being planned with Group Sustainability Team by Aug end.</li> </ul>
<p><b>Human Rights</b></p>	<ul style="list-style-type: none"> <li>• Human rights training plan in FY24 on discrimination, empowerment, transparency etc.</li> <li>• Collaboration with external agency for site-wise assessment</li> <li>• Risk assessment and mitigation plan</li> </ul>	<ul style="list-style-type: none"> <li>• Received quote from the renowned Consultants</li> <li>• Discussion with two more consultants is pending which is expected to be completed by July end</li> </ul>

## Key Highlights



### Climate Change

- Increased share of renewable energy for deep decarbonisation
- Wind Projects – Part CoD received and generation started on ~130 MW capacity
- Continuous focus on process improvements to reduce GHG emission



### Water Security

- Maintained zero liquid discharge across operations
- Optimising utilisation of rain water harvesting system. 5,828 m3 water utilised by Ratnagiri Plant by this method
- Reuse of treated effluent of Sewage Treatment Plant for horticulture



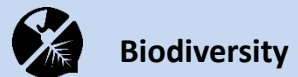
### Waste

- Reutilising pond ash as well as bottom ash in Boiler. ~10,000 MT ash fed at Ratanagiri Plant.
- 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

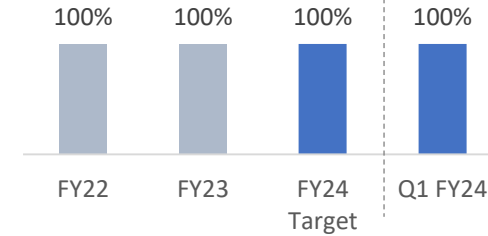


### Biodiversity

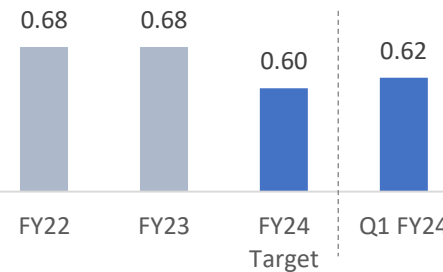
- 'Eco-System Study' of 'Biodiversity Assessment report' submitted by CII and implementation of recommendation are under progress at Barmer
- Draft report of Biodiversity Assessment for Ratnagiri, Hydro, Wind Plant is received from CII
- Increase in green cover at all operations to achieve 'No Net Loss' of Biodiversity by 2030.

## Performance

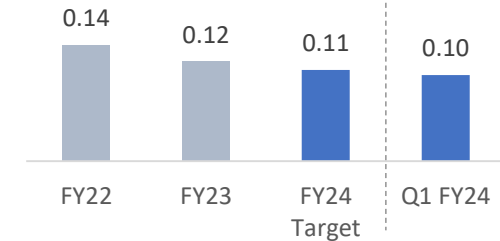
### Ash Utilisation (%)



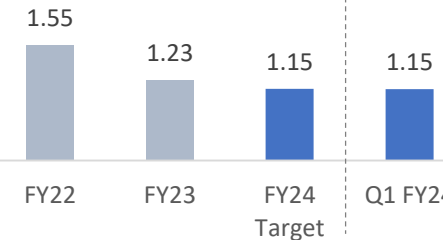
### CO2 intensity (tCO2e/MWh)



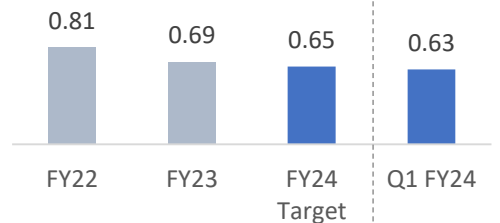
### PM Emissions (kg/MWh)



### SOx Emissions (kg/MWh)



### NOx Emissions (kg/MWh)





# Sustainability: Empowering Our Communities





## Key Intervention Areas

	<a href="#"><u>Health &amp; Nutrition</u></a>		<a href="#"><u>Women's BPO &amp; Livelihoods</u></a>
	<a href="#"><u>Water &amp; Environment</u></a>		<a href="#"><u>Art, Culture &amp; Heritage</u></a>
	<a href="#"><u>Waste Management</u></a>		<a href="#"><u>Skill Enhancement</u></a>
	<a href="#"><u>Agri-livelihoods</u></a>		<a href="#"><u>Sports</u></a>
	<a href="#"><u>Education</u></a>		

<b>141</b> Health Camps conducted	<b>23,225</b> Individuals reached through various health interventions	<b>11,801</b> Individuals underwent vision screening
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## Women's BPO and Livelihoods

JSW Shakti's women's-only rural BPO in Ratnagiri. Currently, 50 women have secured livelihoods at the centre.



## Sports

Our Shikharites from Sangla: Deepika (66 kg Gold) and Ritu (52 kg Silver) shone at the Khelo India University Games 2023



## Health and Nutrition

Individuals line up to avail the services of Health Camp in Sholtu, Himachal Pradesh

# Sustainability: Recognition of Global Best Practices



Five Star OH&S Audit Award received by Vijayanagar Plant from British Safety Council



JSW Energy (Barmer) received the “2<sup>nd</sup> CEE National Environment Excellence Award 2023 in Exceptional performance and outstanding achievement in Environment Excellence” Organized by Council of Enviro Excellence



“Best Power Generator Award 2023” Organized by Council of Enviro Excellence (CEE) for JSW Energy (Barmer)



JSW Energy – Ratnagiri won the Runner Up Award in the Best Operating Thermal Power Plant Category by IPPAI ( Independent Power Producer Association of India)



“Gold Award 2022 in Sustainability” Organized by Grow Care India





**JSW** Energy

**Investor Relations Contact:**

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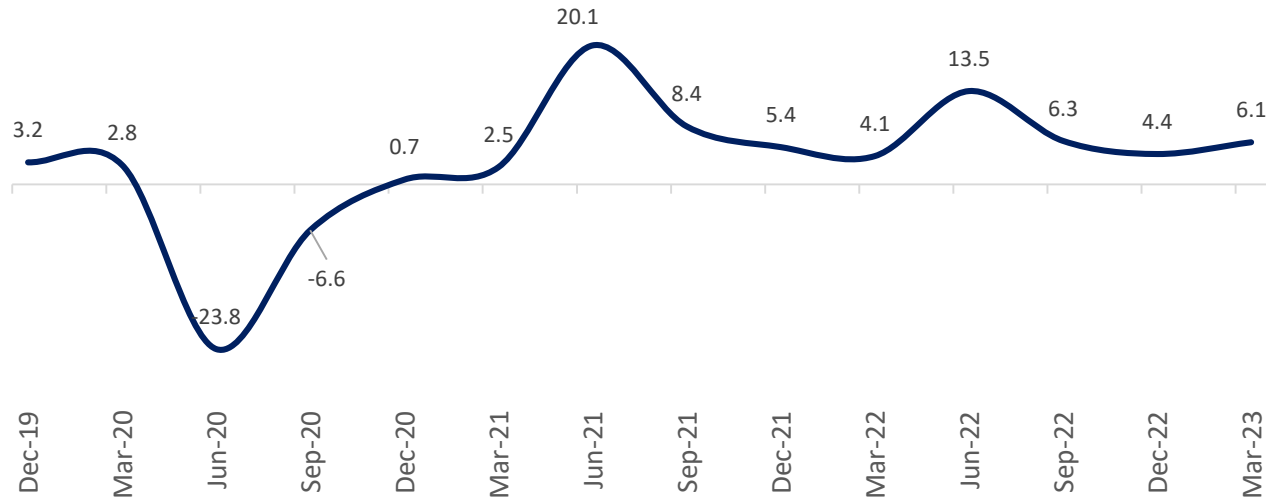
**ESG Data Profile:** [Link](#)

# Business Environment

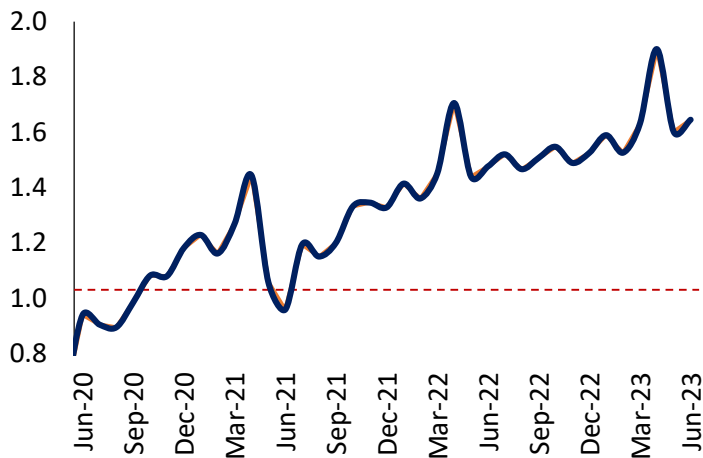




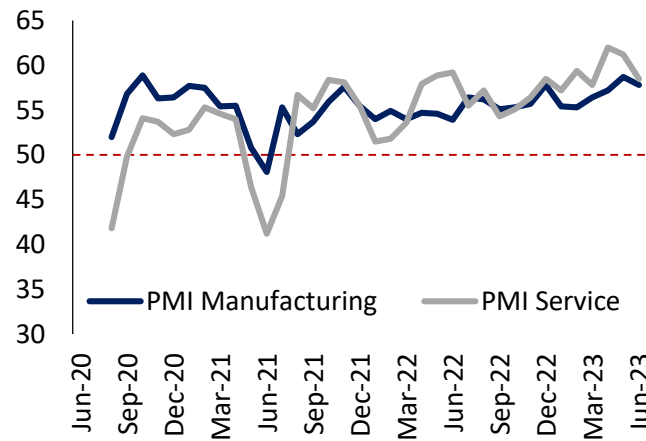
### Real GDP Growth (%)



### GST Collection (₹ Lakh Cr)



### PMI – Manufacturing & Services

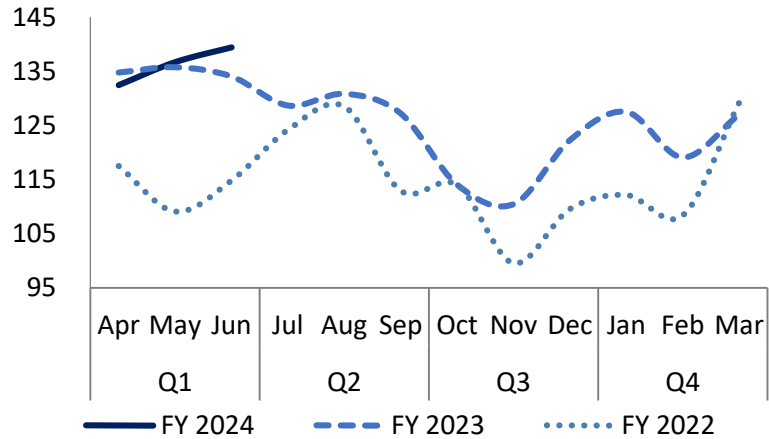


**World Bank projects India's GDP growth at 6.3% for FY24**

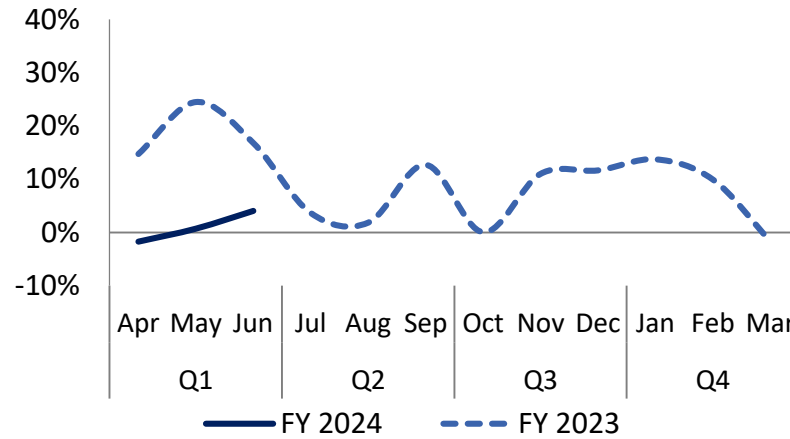
- India continues to see resilient growth amid headwinds from slowing global growth and trade
  - Real GDP growth for Mar-23 quarter stood at 6.1% YoY.
  - PMI: Manufacturing (Jun-23: 57.8) and Services (Jun-23: 58.5) PMI continue to be encouraging
  - Strong GST collections trend with more than ₹ 1.40 trillion for 16 months in a row; Jun-23 witnessed ₹ 1.62 trillion a growth of 12% YoY
- Indian Inflation continues to moderate
  - CPI inflation for the quarter remained below the RBI's tolerance limit; Jun-23 CPI stood at 4.8%
  - 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
  - Ministry of Finance has earmarked ₹ 1.43 lakh Cr for additional borrowing by states for FY 24 to undertake reforms for enhancing the efficiency and performance of the power sector
  - World Bank approved \$1.5 billion in funding to support the successful implementation of National Green Hydrogen Mission

# Power Demand increased by 1% in Q1 FY24

### Power Demand in BUs

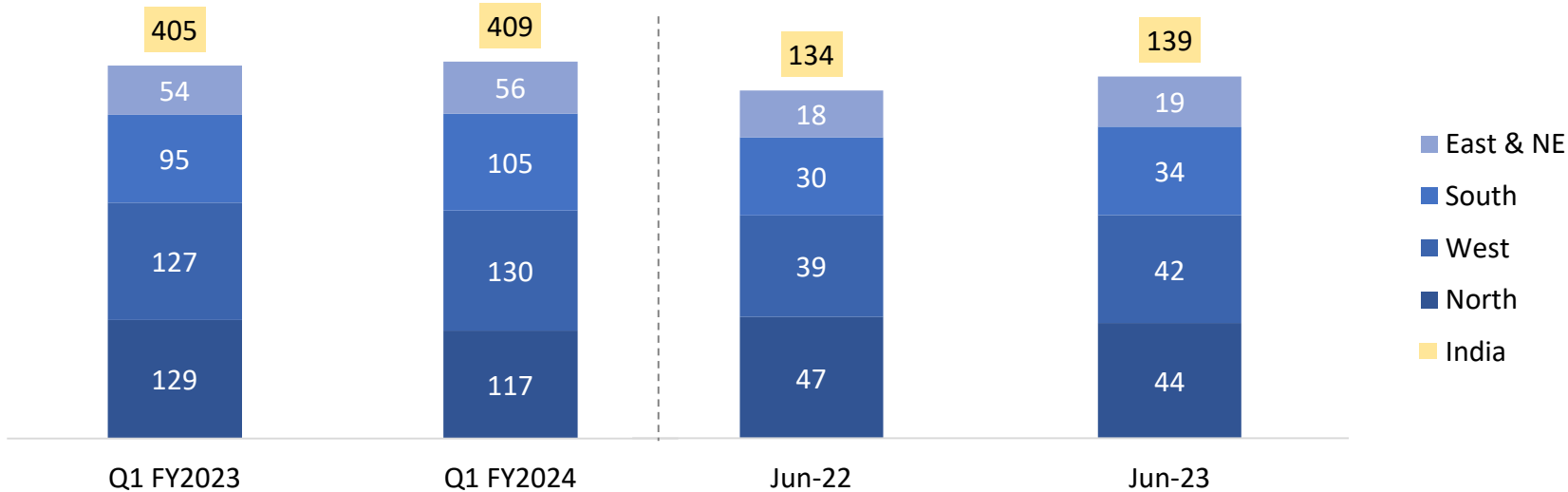


### Power Demand Growth (% YoY)



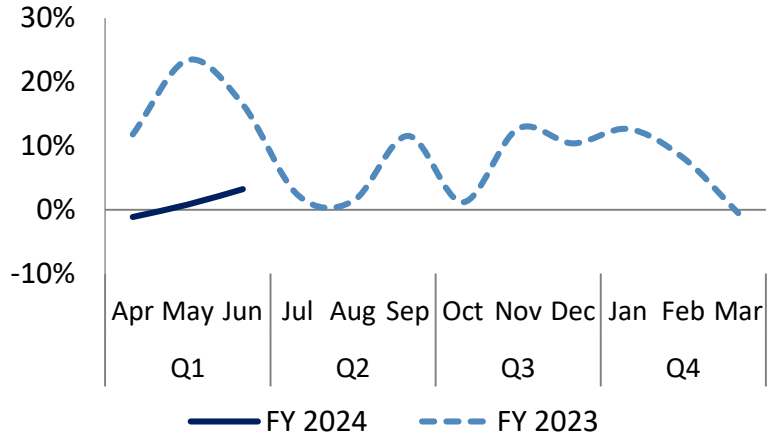
- Pan India demand during Q1 FY24 was at 409 BUs increased by 1.0% YoY as unseasonal rains so far in FY 2024 affected the power consumption in the country
- Demand in South (105 BUs) increased by 10.7% while demand in North (117 BUs) decreased by 9.0% due to unseasonal rains
- Total demand met during Q1 FY 24 stood at 408 BUs implying no shortfall
- The peak demand of 223.3 GW was witnessed during the quarter on 9<sup>th</sup> June 2023

### Power Demand by Region in BU

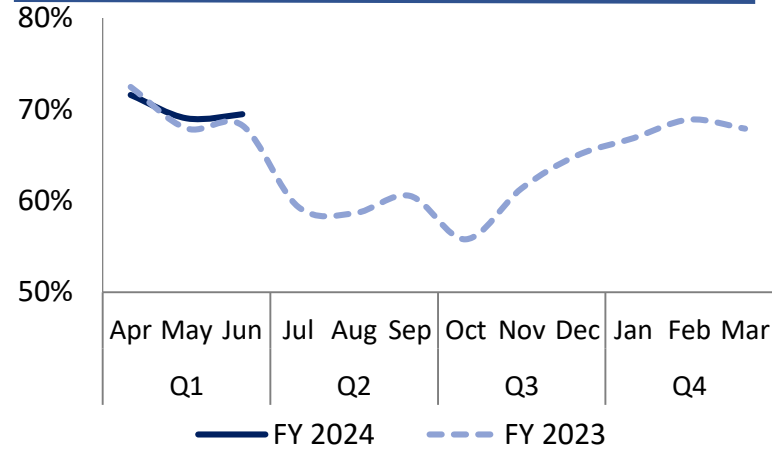


# Overall Generation increased by 1% in Q1 FY24

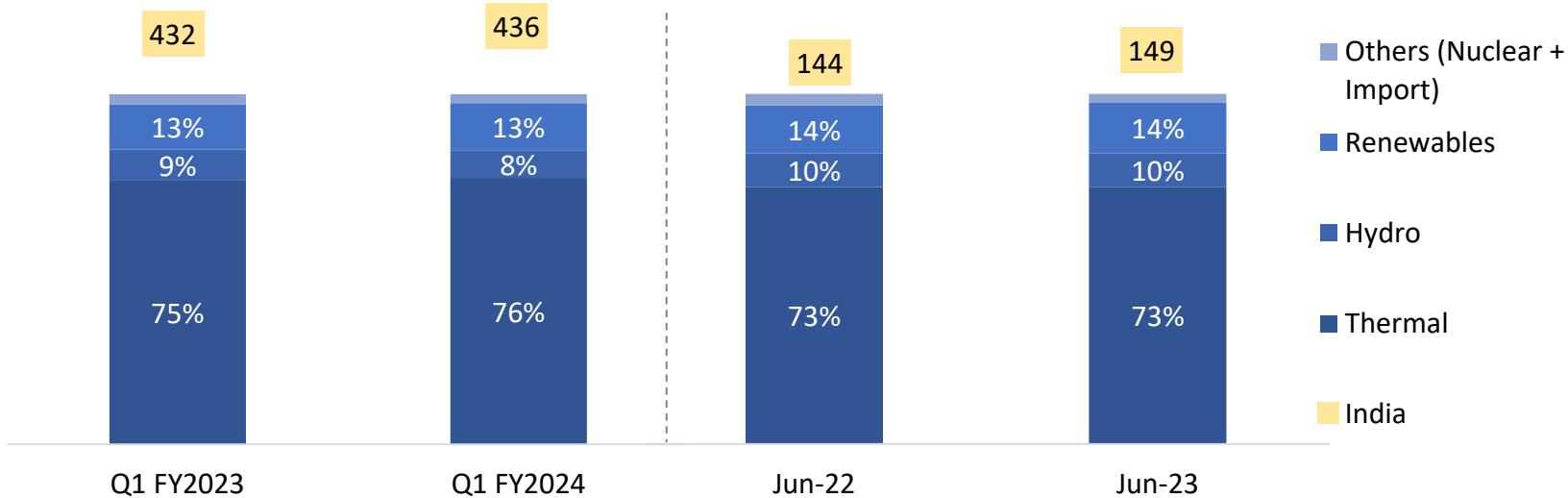
### Power Generation Growth (% YoY)



### Thermal PLFs



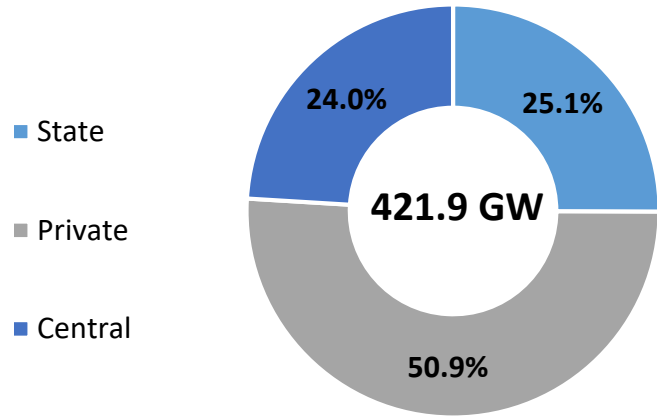
### Power Generation by Source in BU



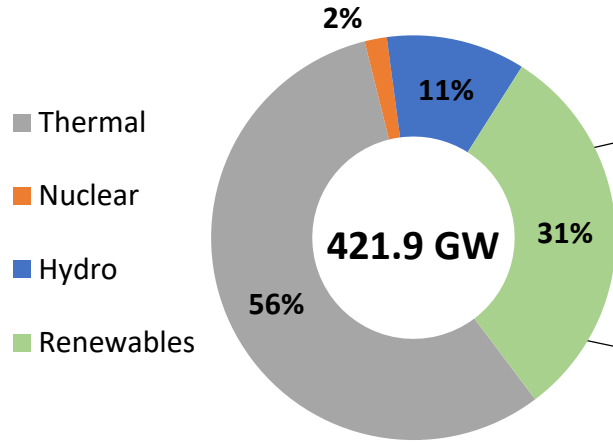
- Overall generation during Q1 FY24 at 436 BUs increased by 1.0 % YoY in tandem with the demand decline
- Share of thermal in overall generation increased to 76% in Q1 FY24 vs 75% in Q1 FY23 with net generation of 332 BUs up 2.0% YoY resulting in PLFs of 70%
- Generation from large hydro declined by 10.5% YoY in Q1 FY24; while generation from renewables increased by ~6% YoY impacted by lower wind generation

# India's installed capacity stands at 422 GW as on Jun-23

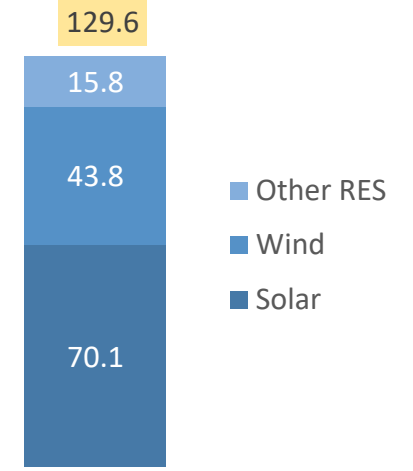
### Sector-wise Installed Capacity



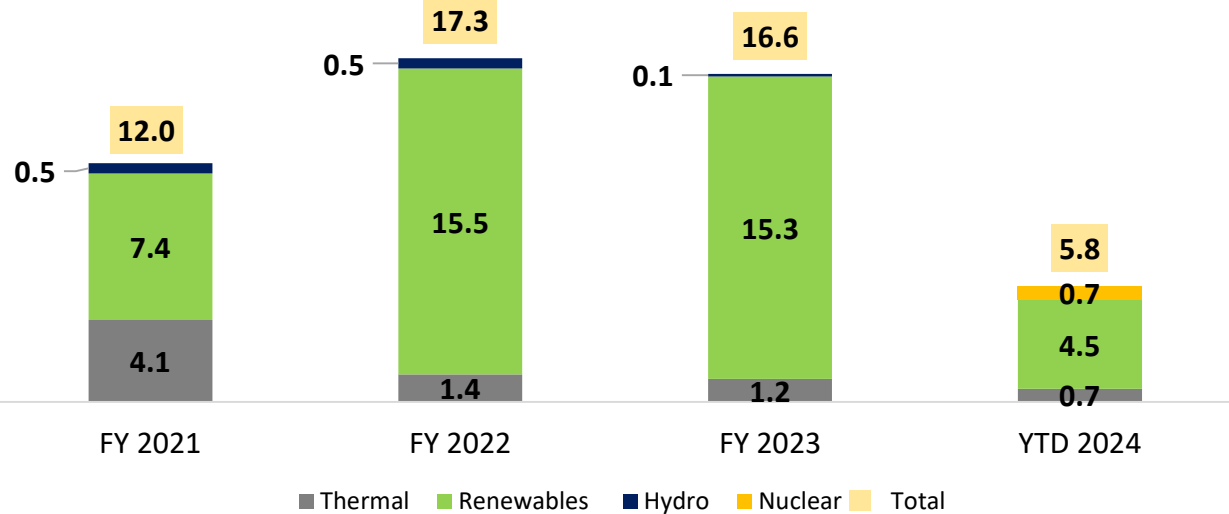
### Segment-wise Installed Capacity



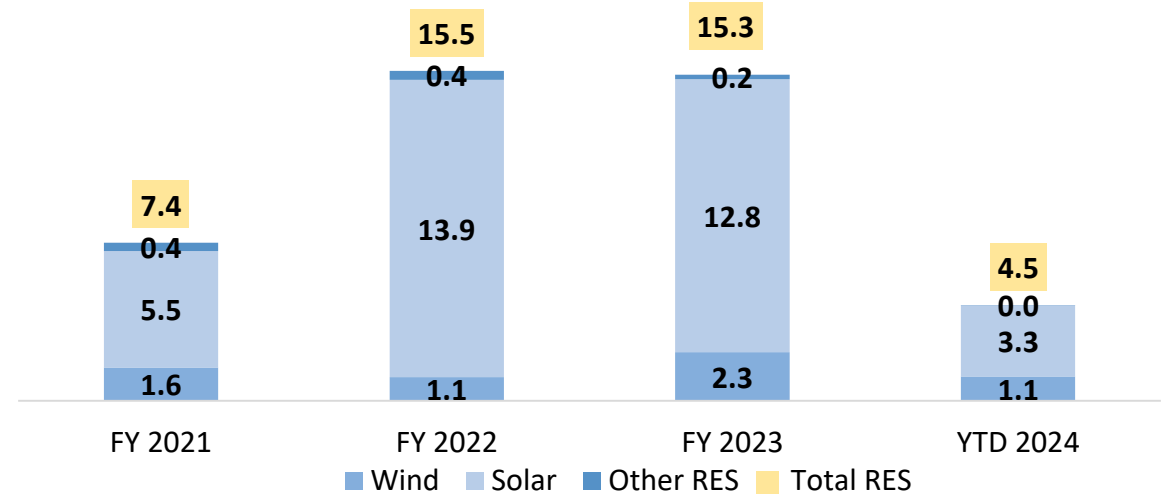
### Renewable Capacity Breakdown



### Overall segment wise net capacity additions (GW)

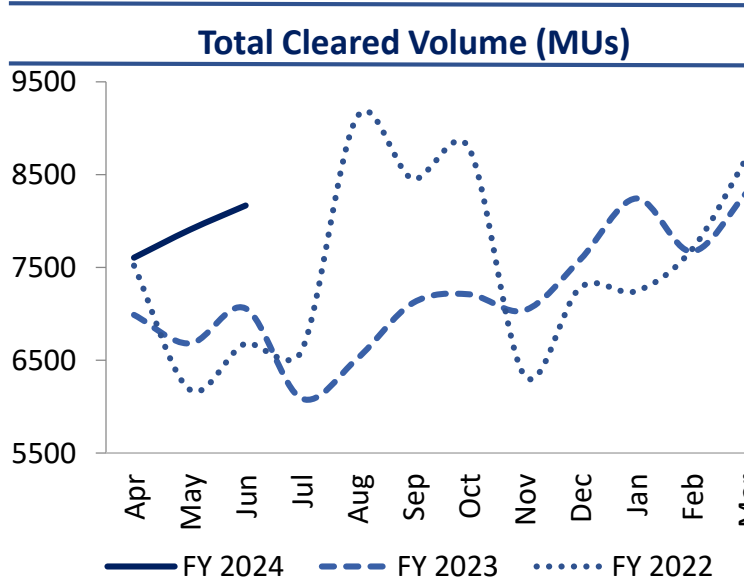
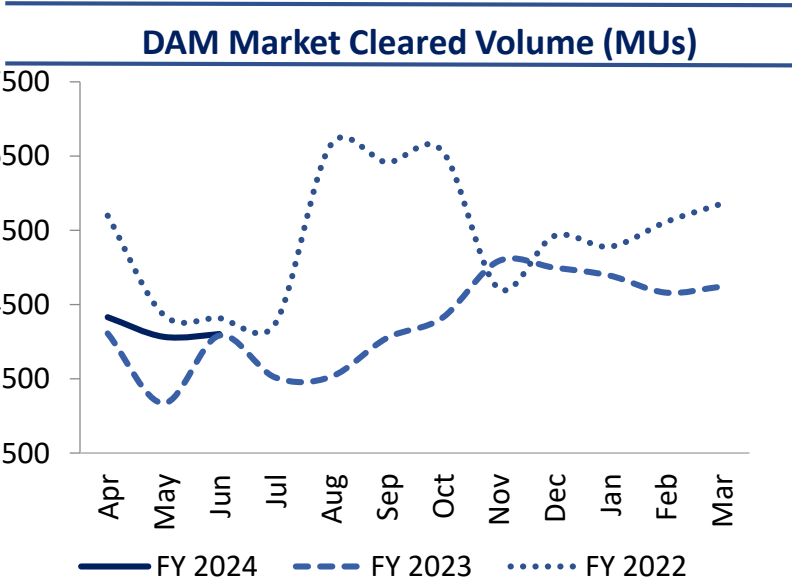
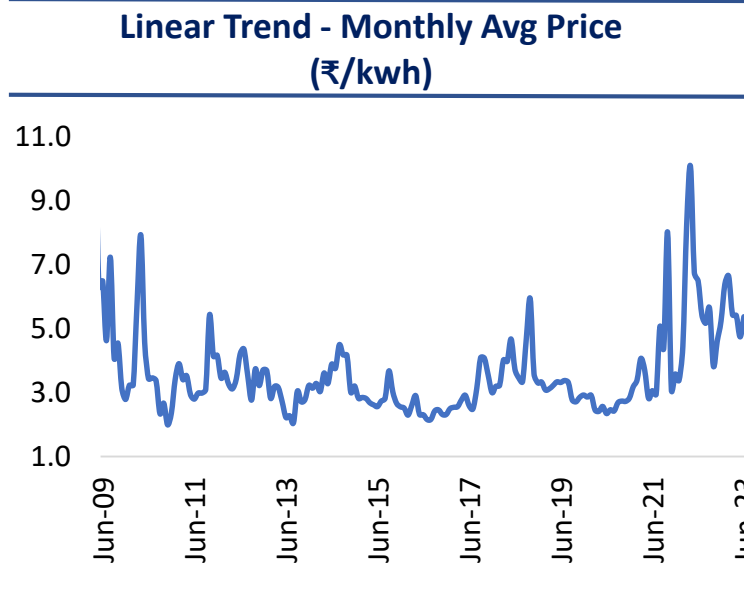
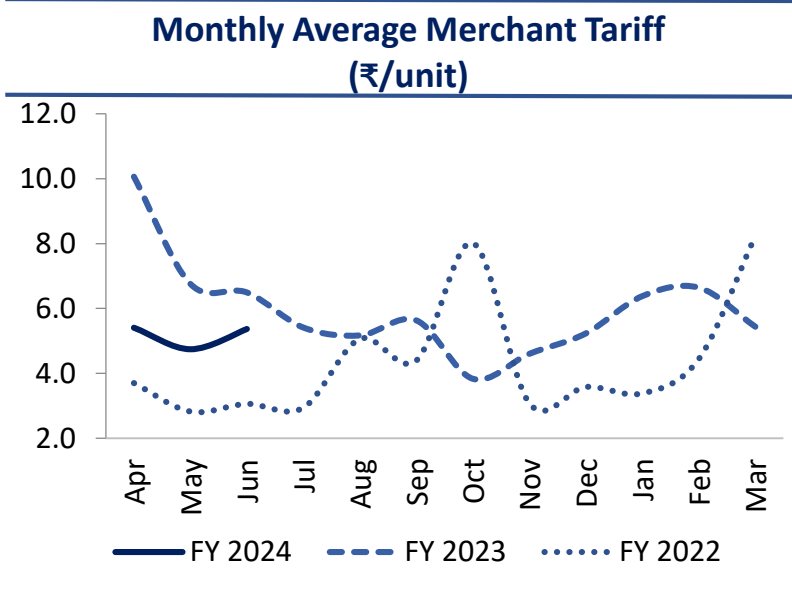


### Renewable Capacity Additions (excl. Hydro) GW





# Merchant Power – Day Ahead Market

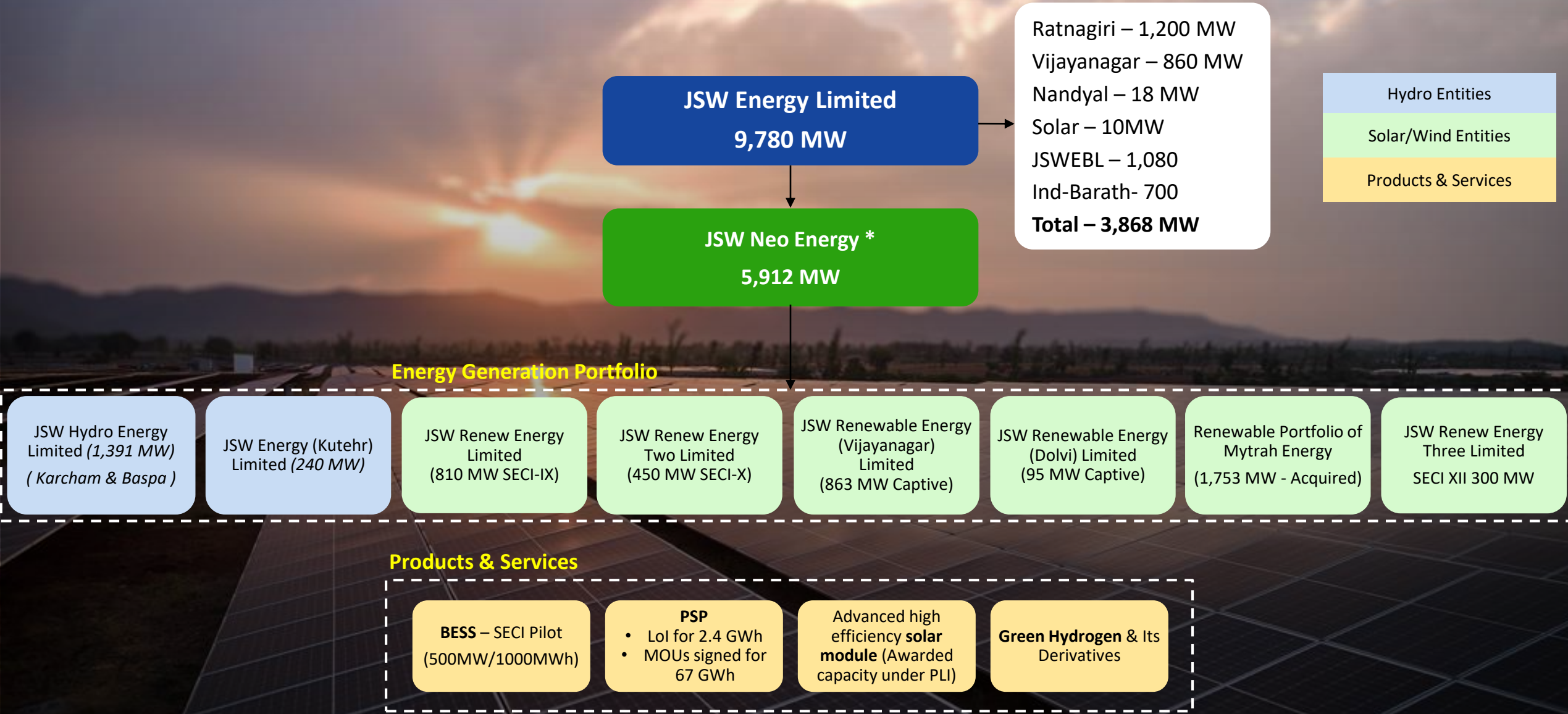


- Day Ahead Market (DAM) prices averaged at ₹5.1/unit during Q1 FY24 and were down 34% YoY due to reduction in variable costs
- The cleared volume in DAM market at 12,521 MUs was up 10% YoY in Q1 FY24
- Total cleared volume on IEX at 23,682 MUs was up 14% YoY in Q1 FY24

# Appendix



# JSW Energy – Broad Structure



# Entity-wise Financial Results

Entity-wise Revenue from Operations		
Particulars in ₹ Crore	Q1 FY24	Q1 FY23
Standalone	1,485	1,997
JSW Energy (Barmer)	640	618
JSW Hydro Energy	298	357
Mytrah RE Assets *	418	-
JSW Renewable Energy (Vijayanagar)	50	33
JPTL	17	17
<b>Consolidated**</b>	<b>2,928</b>	<b>3,026</b>

Entity-wise EBITDA (Including Other Income)		
Particulars in ₹ Crore	Q1 FY24	Q1 FY23
Standalone	425	494
JSW Energy (Barmer)	204	219
JSW Hydro Energy	282	325
Mytrah RE Assets *	374	-
JSW Renewable Energy (Vijayanagar)	47	32
JPTL	17	16
<b>Consolidated**</b>	<b>1,307</b>	<b>1,111</b>

\* For the period under consolidation; On a proforma basis Mytrah assets generated revenue of ₹449 Crore and EBITDA of ₹400 Crore respectively

\*\* After inter-company adjustments and eliminations



# Operational Performance – Net Generation

Net Generation					
Location		Capacity %	Q1 FY24	Q1 FY23	Change YoY %
Ratnagiri (1,200 MW)	LT	89%	<b>1,663</b>	1,205	38%
	Total	100%	<b>1,939</b>	1,518	28%
Barmer (1,080 MW)	LT	100%	<b>1,418</b>	1,554	-9%
Vijayanagar (860 MW)	LT	36%	<b>530</b>	546	-3%
	Total	100%	<b>1,074</b>	1,100	-2%
Nandyal (18 MW)	LT	100%	<b>10</b>	10	3%
<b>Total Thermal (3,158 MW)</b>	LT	79%	<b>3,620</b>	3,315	9%
	Total	100%	<b>4,440</b>	4,181	6%
Hydro (1,345 MW)*	LT	97%	<b>1,133</b>	1,564	-28%
	Total	100%	<b>1,144</b>	1,572	-27%
Solar (245 MW)	LT	100%	<b>150</b>	98	54%
Wind (130 MW)**	Total	100%	<b>53</b>	NA	NA
Mytrah - Wind (1,331 MW)***	Total	100%	<b>695</b>	NA	NA
Mytrah - Solar (422 MW)***	Total	100%	<b>216</b>	NA	NA
<b>TOTAL</b>	LT	89%	<b>5,868</b>	4,976	18%
	Total	100%	<b>6,699</b>	5,850	14%

\*Includes free power to HPSEB \*\* Generation from SECI X progressive commissioning started in Dec-22 \*\*\* On Proforma basis and not comparable on YoY basis as the acquisition was consummated in Q4FY23 and 2 SPVs were consolidated during Q1 FY24

LT : Long Term. NM : Not meaningful Figures rounded off to nearest units digit

# Operational Performance – PLF

PLF/CUF				
Location		Capacity	Q1 FY24	Q1 FY23
		%	%	%
Ratnagiri (1,200 MW)	LT	89%	<b>77 (*99)</b>	56 (*70)
	Total	100%	<b>81 (*100)</b>	63 (*76)
Barmer (1,080 MW)	LT	100%	<b>67 (*71)</b>	73 (*75)
Vijayanagar (860 MW)	LT	36%	<b>85 (*87)</b>	89 (*89)
	Total	100%	<b>62 (*63)</b>	63 (*64)
Nandyal (18 MW)	LT	100%	<b>28 (*100)</b>	28 (*93)
<b>Total Thermal (3,158 MW)</b>	LT	79%	<b>73 (*86)</b>	67 (*75)
	Total	100%	<b>71 (*80)</b>	67 (*73)
Hydro (1,345 MW)	LT	97%	<b>40</b>	55
	Total	100%	<b>39</b>	54
Solar (245 MW)	LT	100%	<b>29</b>	26
Wind (130 MW)	Total	100%	<b>23</b>	NA
Mytrah - Wind (1,331 MW) **	Total	100%	<b>25</b>	NA
Mytrah - Solar (422 MW) **	Total	100%	<b>24</b>	NA

LT : Long Term; ST: Short Term \* denotes Deemed PLF \*\* On proforma basis

# Cash Returns on Adjusted Net Worth

₹ Cr (Unless mentioned otherwise)

Quarter ended	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23
<b>Reported PAT</b>	<b>339</b>	<b>324</b>	<b>864</b>	<b>560</b>	<b>466</b>	<b>180</b>	<b>272</b>	<b>290</b>
Add: Depreciation	284	281	277	289	294	295	291	398
Add/(less): Deferred Taxes	32	26	(7)	84	42	14	24	55
(Less): Dividend Received	(46)	-	-	-	(122)	-	-	-
Add/(less): One-offs*	-	-	(492)	(120)	0	-	-	-
<b>Cash PAT</b>	<b>610</b>	<b>631</b>	<b>643</b>	<b>813</b>	<b>681</b>	<b>489</b>	<b>587</b>	<b>743</b>
<b>Cash PAT (TTM)</b>	<b>1,899</b>	<b>2,097</b>	<b>2,395</b>	<b>2,697</b>	<b>2,767</b>	<b>2,625</b>	<b>2,570</b>	<b>2,500</b>
<b>Adjusted Net Worth**</b>	<b>11,475</b>	<b>11,830</b>	<b>12,688</b>	<b>12,952</b>	<b>13,491</b>	<b>13,446</b>	<b>14,177</b>	<b>14,061</b>
<b>Cash Returns on Net Worth (%)</b>	<b>17%</b>	<b>18%</b>	<b>19%</b>	<b>21%</b>	<b>21%</b>	<b>20%</b>	<b>18%</b>	<b>18%</b>

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

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

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



# JSW Neo Energy Ltd

The Green Energy Platform of JSW Energy

5.9 GW of installed capacity by CY 24

### Current Generation Capacity (3,509 MW)



### Under Construction Generation Capacity (2,403 MW)



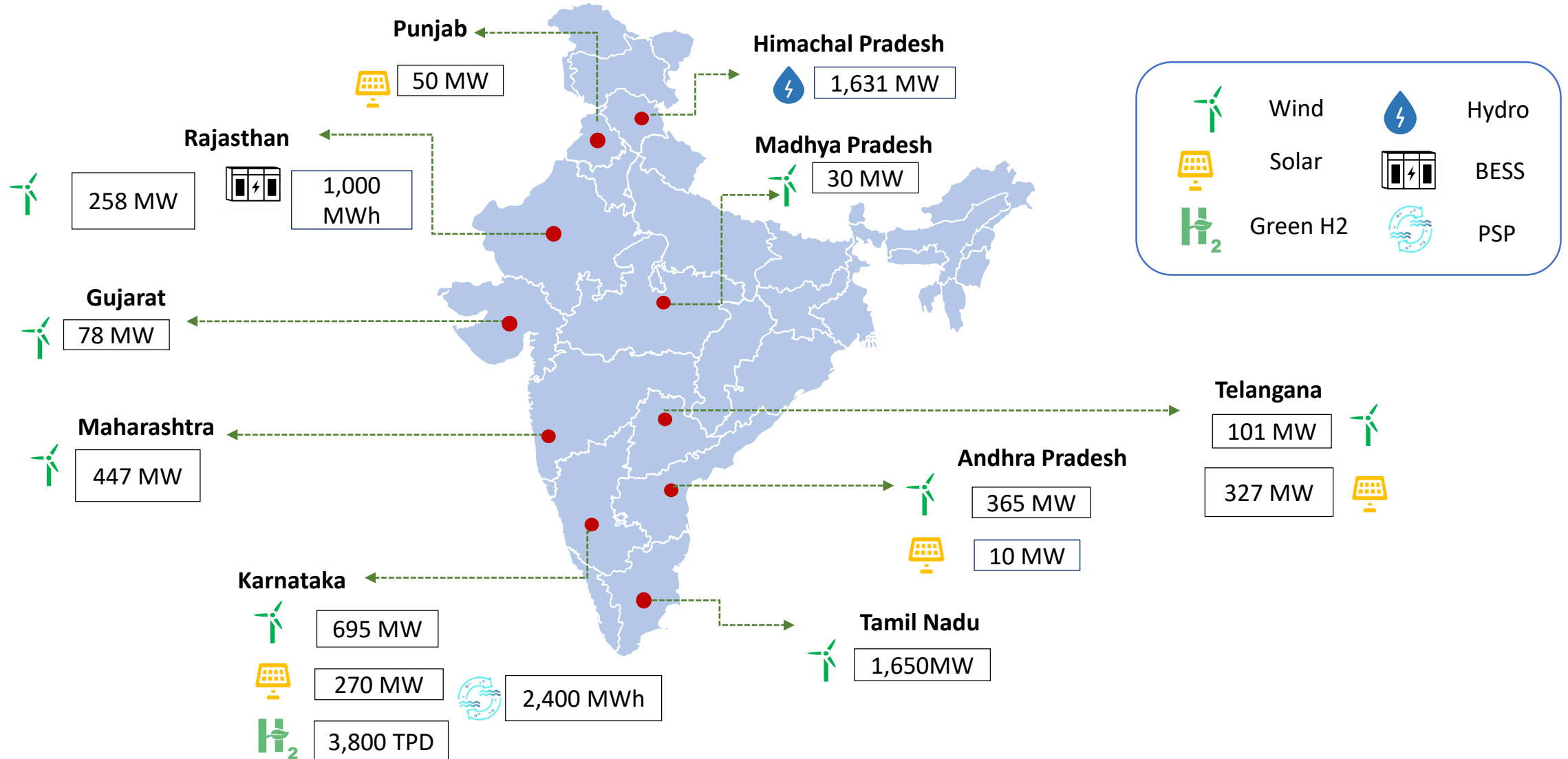
### Energy Products and Services





# Developed a Pan India Footprint of Diverse Asset Base

Operational Capacity by CY 24 (5,912 MW)



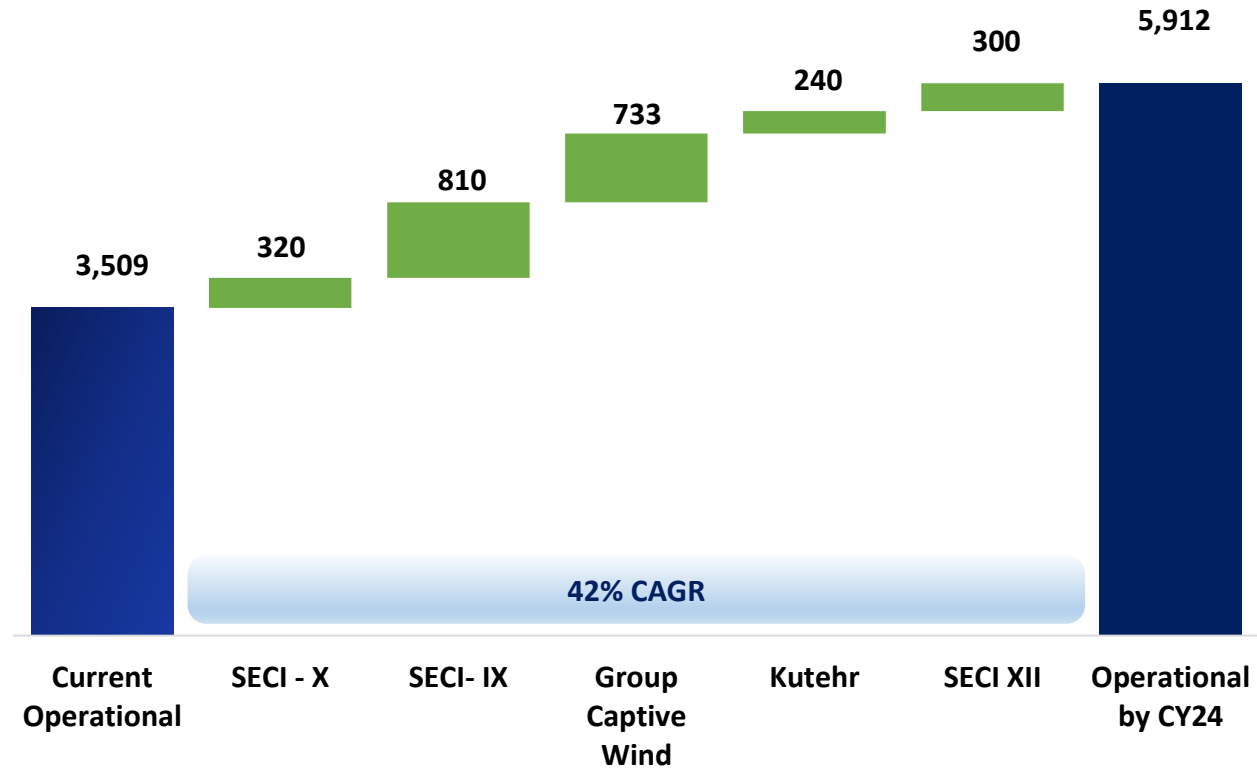
Map of India representation – scaling may not be accurate

# JSW Neo – Capacity growth



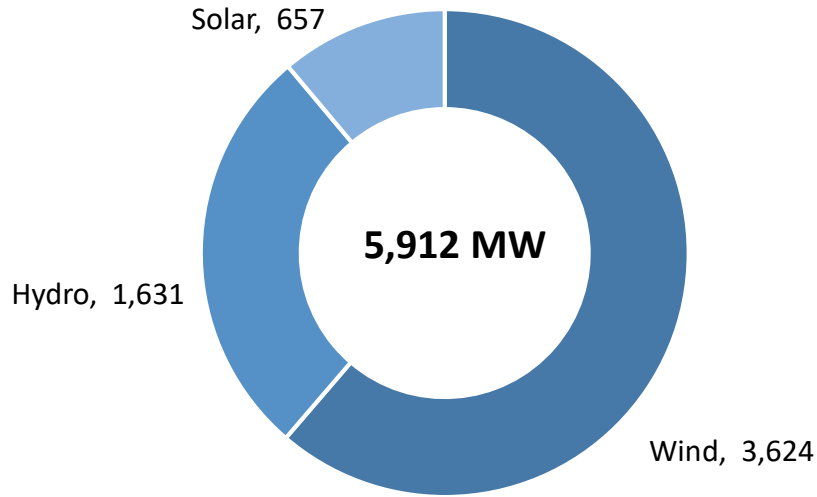
Mytrah Solar Plant (Hungund, Karnataka)

Capacity to grow at a CAGR of 42%

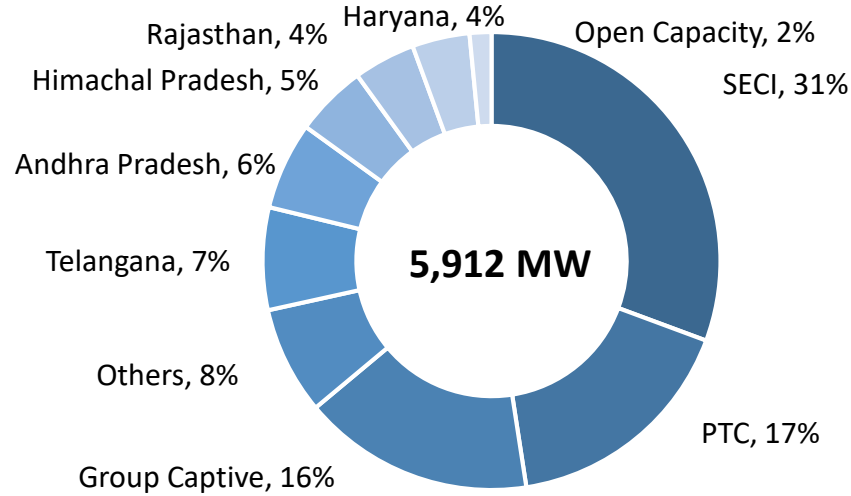


# JSW NEO – PPA Profile

## JSW Neo – Total Capacity (MW)



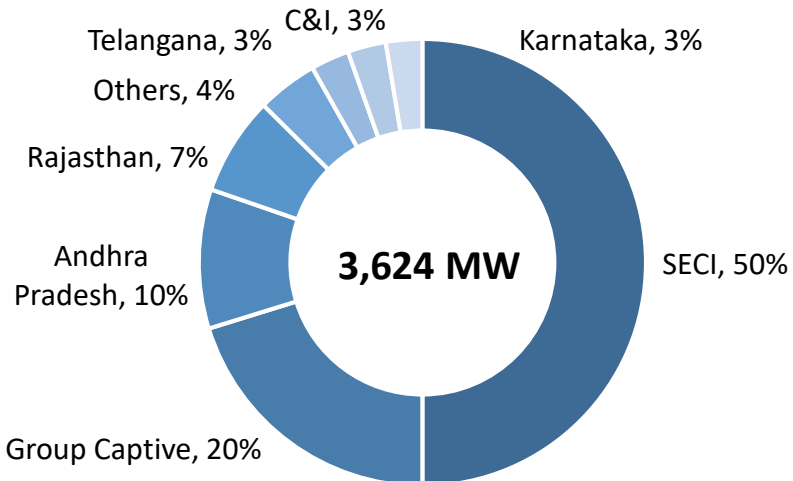
## JSW Neo –PPA Profile



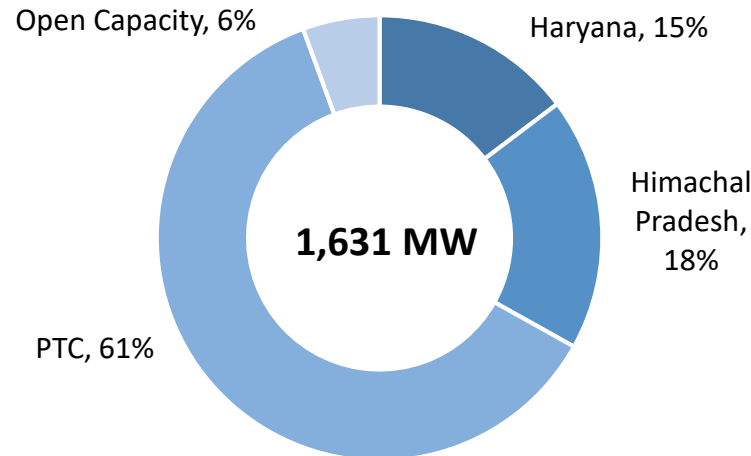
98% assets tied up under LT PPA (91 MW at Karcham Wangtoo HEP)

100% under construction assets tied up in LT PPA

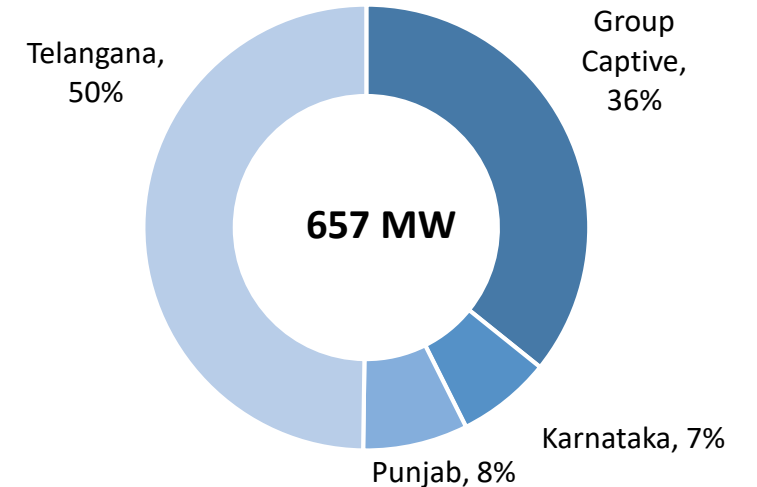
## Wind



## Hydro



## Solar



# Mytrah Asset Optimisation & Performance Improvement progressing well

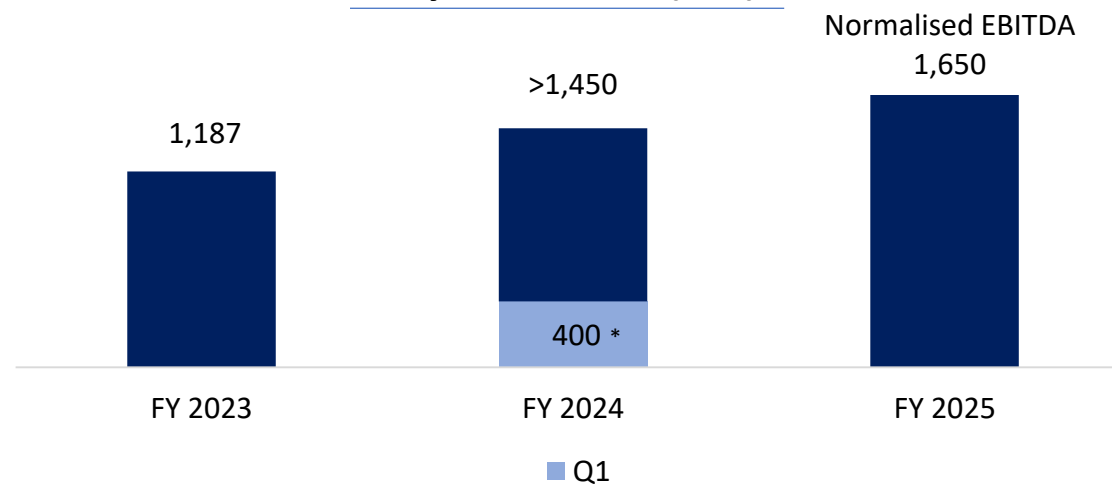




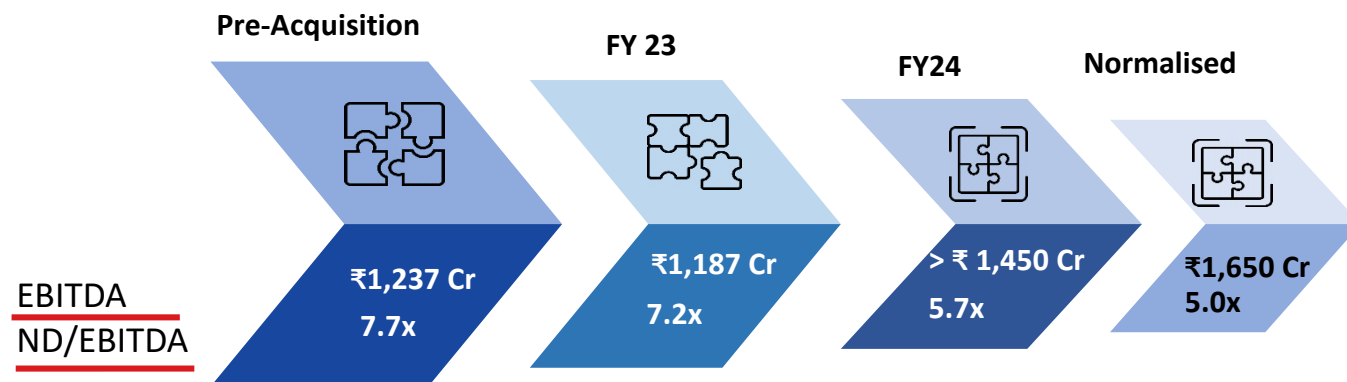
# Mytrah Progress on Track



## Mytrah EBITDA (₹ cr)



## Mytrah Net Debt/EBITDA



## Asset Optimisation & Performance Improvement Plan underway



### 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



#### Restoration of WTGs

168 WTGs out of 178 have been restored since acquisition  
Remaining 10 WTGS to be restored in July -23

#### Machine availability

WTGs restoration and spare availability resulted in improved Machine Availability (MA)  
MA improved to 94.3% in Q1 FY24 from 87.5% in Q1 FY23

#### 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 in house O&M of wind farms

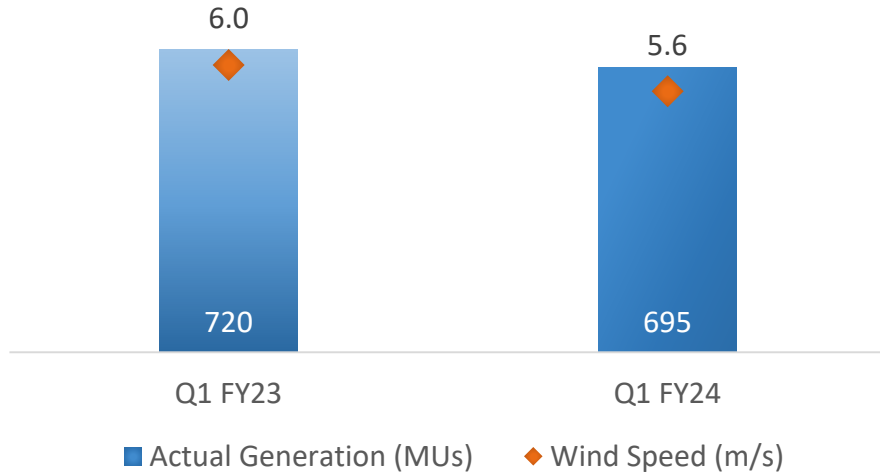
#### Equipments

All spares and material ordered, 90% has reached site  
Balance of plant strengthening: Material and spares for 33 KV line, PSS and USS identified and ordering under process

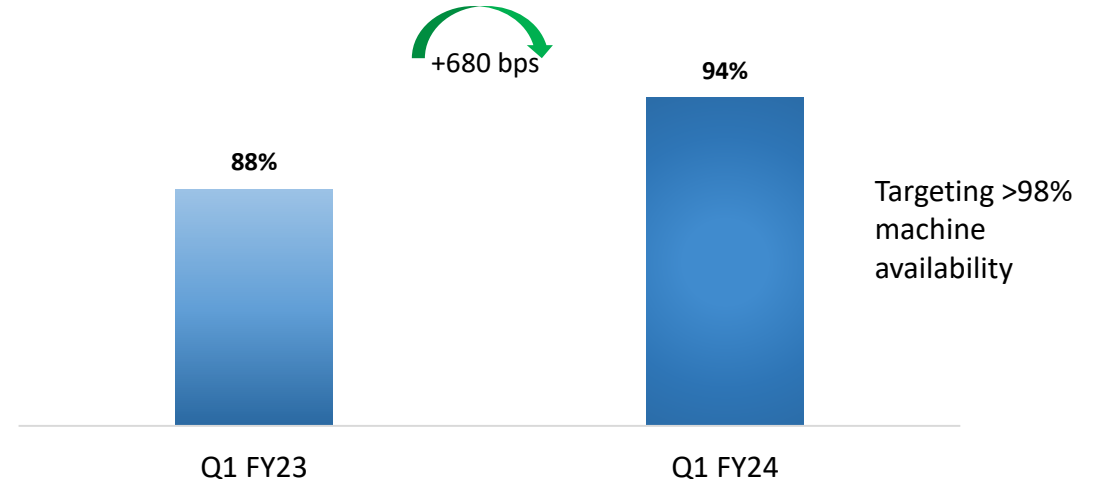
**Expected generation improvement by ~700 MUs**

# Mytrah Wind - progress on track

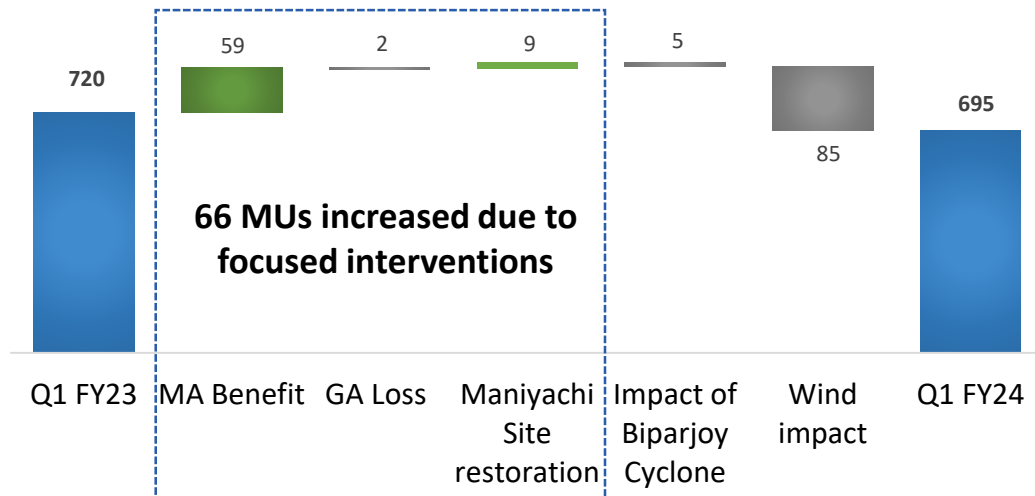
## Actual Generation vs Wind Speed



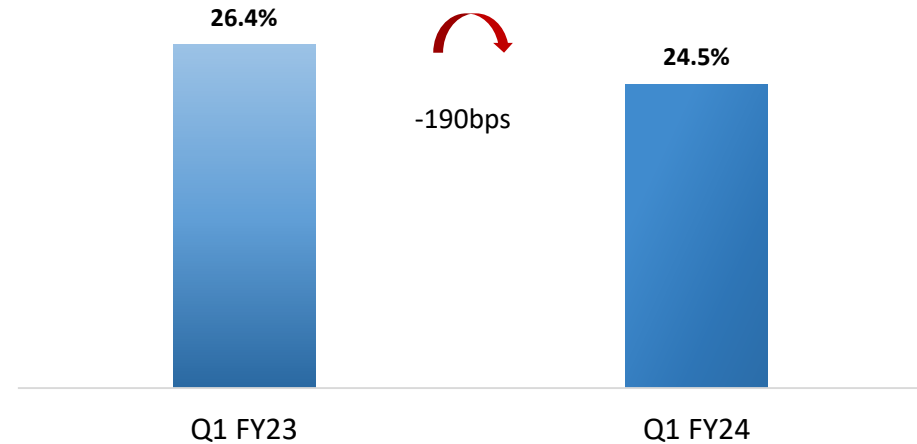
## Machine Availability



## Generation (MUs)



## Wind CUF



## Asset Optimisation & Performance Improvement Plan underway



### 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)

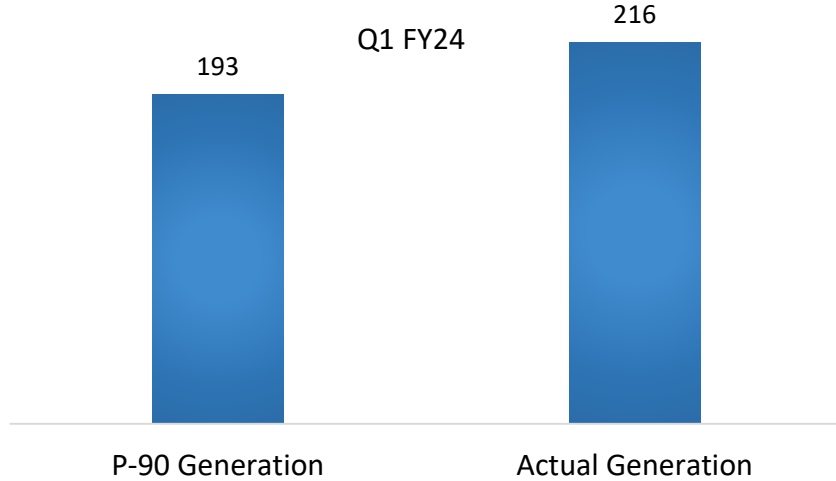
Order for modules is placed, expected delivery in Q2 FY24

**Expected generation improvement by ~45 MUs**

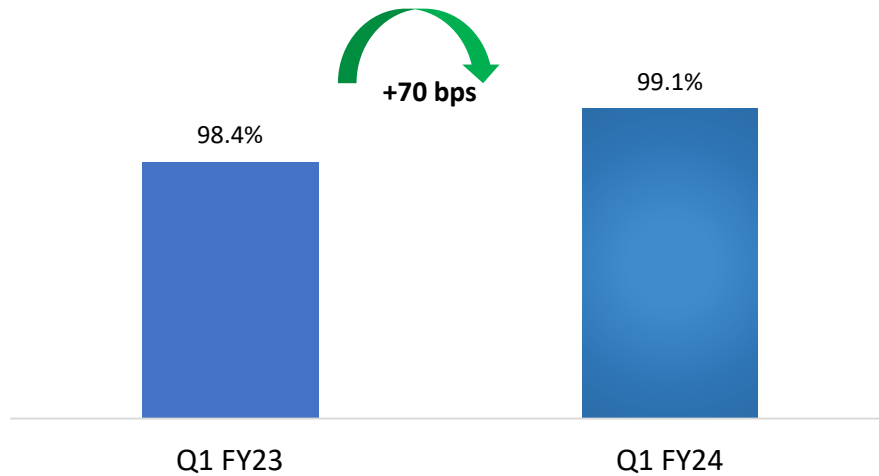


# Mytrah Solar - progress on track

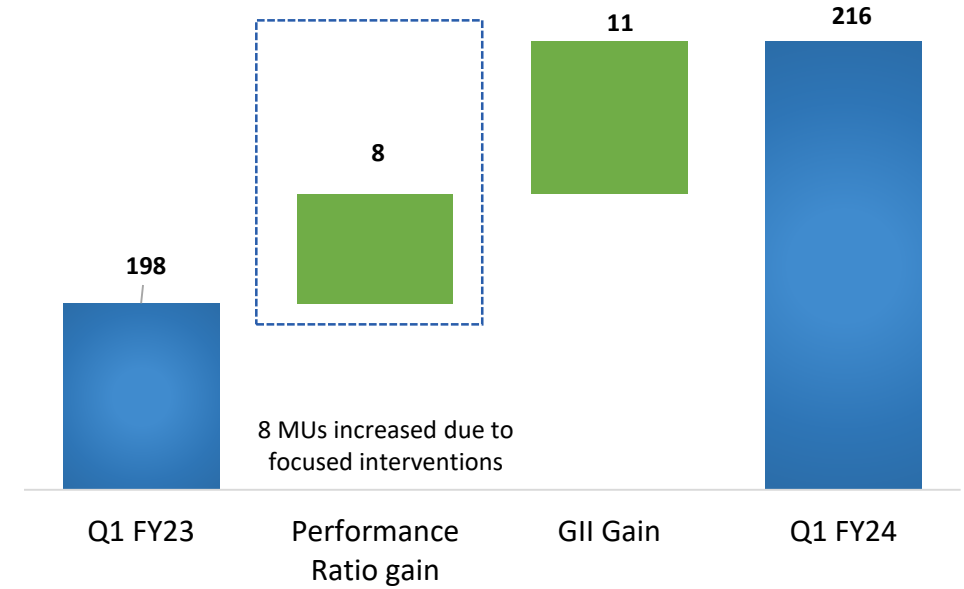
## P-90 vs Actual Generation (MUs)



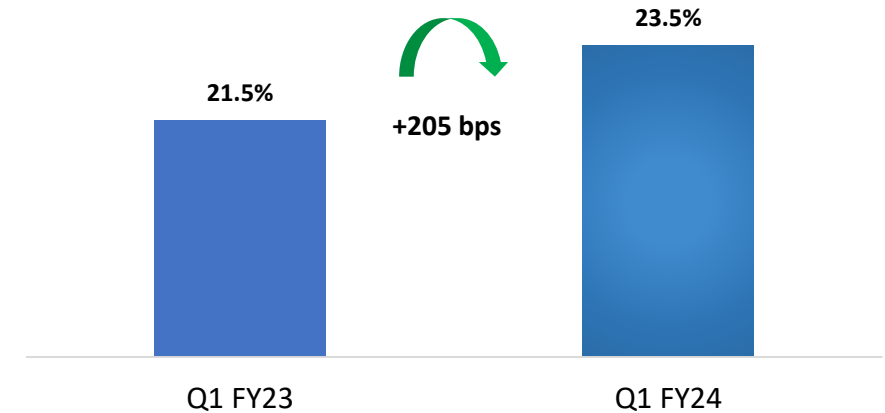
## Plant Availability



## Generation (MUs)

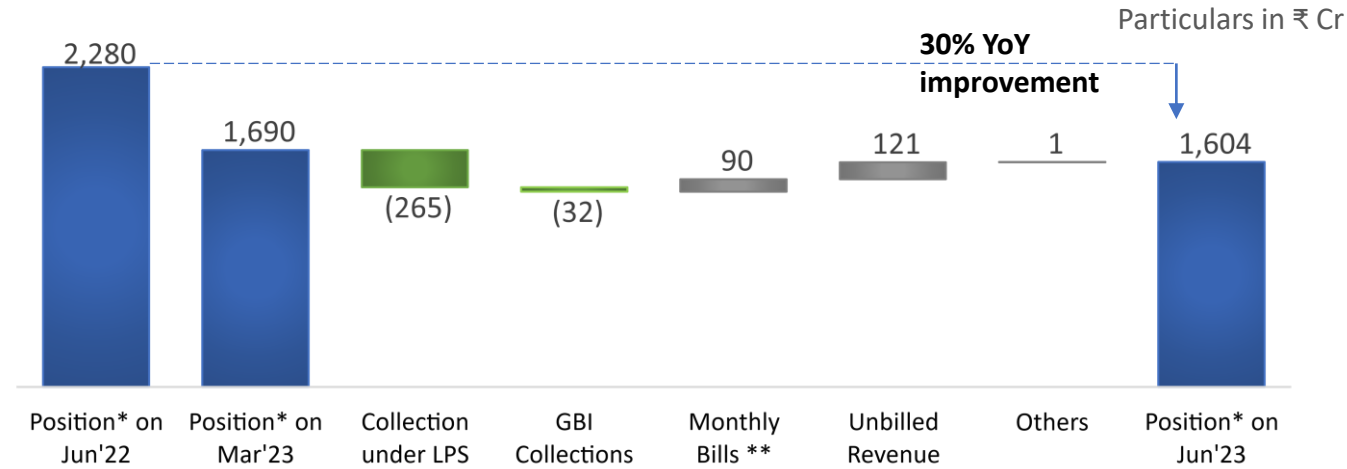


## Solar CUF



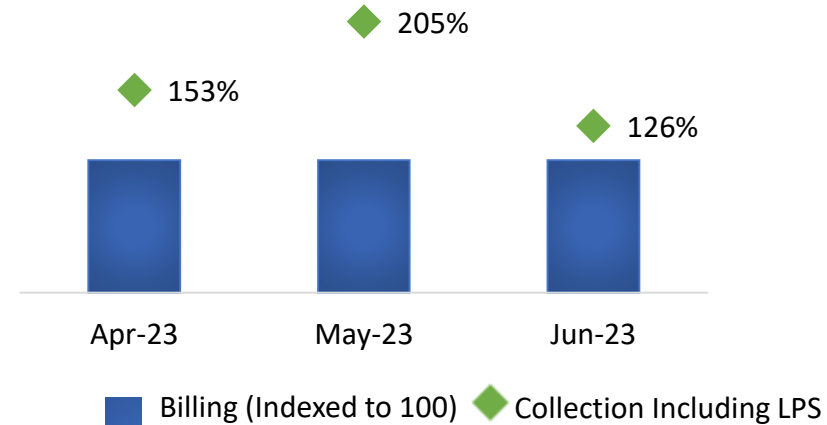
# Receivables Cycle Improving

## Strong collection in Mytrah Portfolio's Receivables underway



\* Excluding unbilled revenue \*\* Increased on account of higher revenue during wind season

## Monthly Collection consistently above the billing



JSW's strong collection efficiency in play

Continued focus on collection efficiency supports further reduction in the receivables

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

# Under Construction Projects







## Mechanical - Turbine

- Turbine HIP & LP Rotor installed on the casing and alignment completed
- Generator electrical testing completed
- Lube oil & seal oil system pump & motor overhauling completed

## Electrical Works

- Transmission tower foundation work in progress
- Switchyard overhauling work started

## Regulatory Approvals

- Environment Clearance – Consent to operate Unit 1 received, clearance application for Unit 2 under process
- PESO license expected in Q2 FY24





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

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- 130 MW commissioned by end of Q1 FY24, currently ~150 MW commissioned
- Expected commissioning by CY 2024

# Kutehr Hydro Power Plant – 240 MW



## Tunneling & Concreting

- Completed ~ 95.9% (20.3 km) tunneling work (up from ~ 92.45 % in Q4)

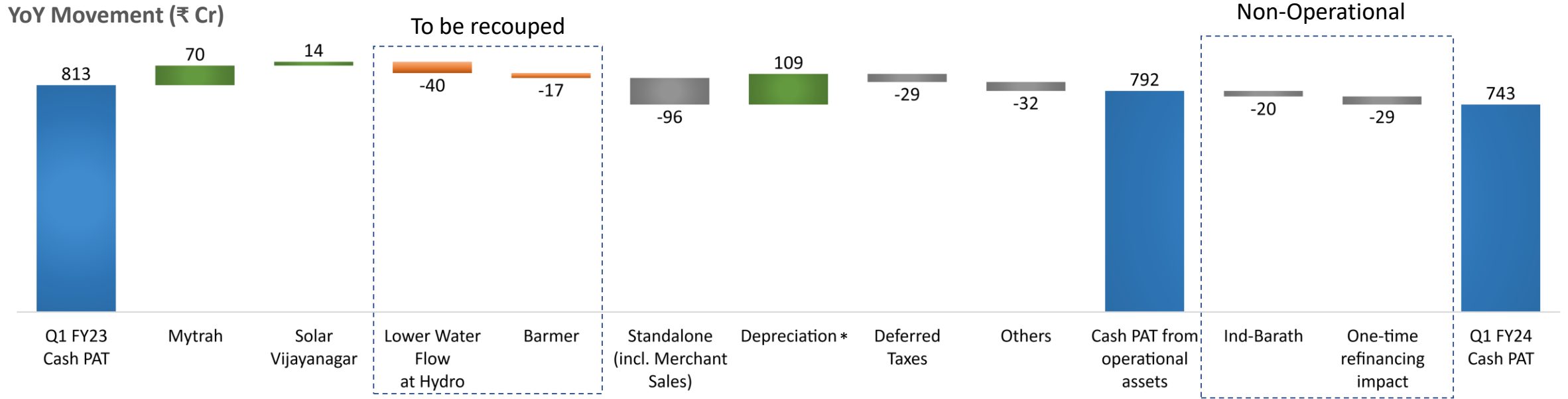
## Electro-mechanical works

- Spiral Case erection work for Unit-2 completed and for Unit 1 & 3 is in progress

## Concreting Barrage

- Completed ~73.50 % of Concreting of Barrage

# Cash PAT Bridge



## PAT to Operational Cash PAT Q1 FY24 (₹ Cr)

