



## MANUFACTURED CAPITAL

From our current installed capacity of 7.2 GW, we are approaching our targeted capacity of 10 GW by FY 2025, and from there on, we will be working to double the capacity to 20 GW before 2030. Alongside, we are also maintaining high standards of operational efficiency in our existing power plants.

A continuous growth in capacity further reinforces and strengthens our vision to become Net Zero before 2050.



— Power Plant, Ratnagiri



## Description

This capital is about our tangible assets and how these are utilised to carry out our business activities. We navigate our investments to manage a diverse portfolio of assets and create value for our customers.

## Management Approach

We aim to provide 'round the clock' reliable and affordable supply of power with increased share of renewables in the generation portfolio, thereby aligning our approach to combat climate change.

## Significant Aspect

- Power generation
- Power transmission
- Power distribution
- Enabling RTC power through efficiency

Key Performance Indicators	Material Topics	Strategy Linkage
<ul style="list-style-type: none"><li>• Total installed capacity</li><li>• Renewable capacity</li><li>• Investment in renewable assets</li></ul>	<ul style="list-style-type: none"><li>• Efficiency of plants</li><li>• Increase in renewable portfolio</li></ul>	<b>S01</b> <b>S04</b> <b>S05</b>

# 11 states

Presence

# 7,245 MW

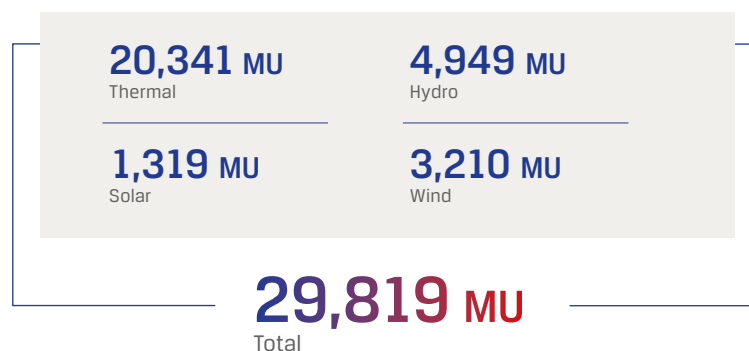
Installed capacity

# 52%:48%

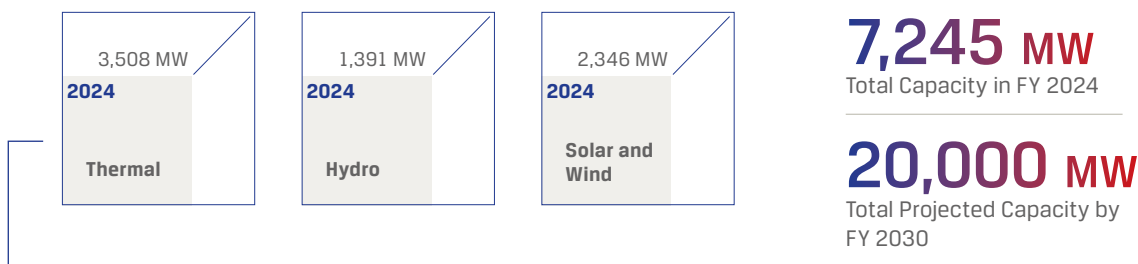
Generation Mix  
Renewable: Thermal

From 260 MW in 2000 to 7,245 MW in FY 2024, we have drastically improved our power generation capacity. Our power plants have an established reputation for efficient operations and capabilities, and aim towards optimum utilisation of resources for power generation, transmission and trading.

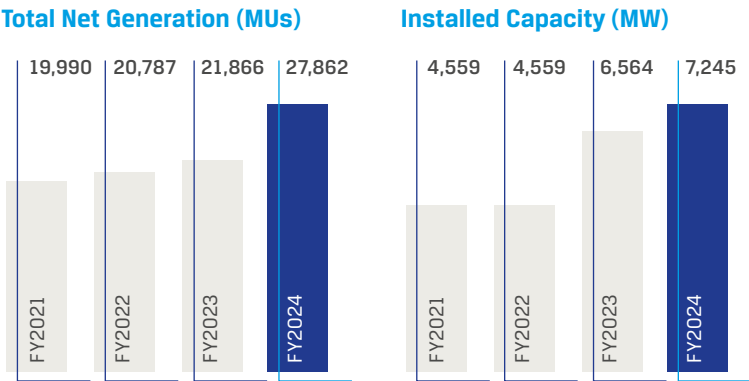
## Gross Generation by Source (MUs)



## Increase in Power Generation Capacity



## Delivering Value for all our Stakeholders



### Annual capacity growth

2,005 MW

FY 2023



681 MW

FY 2024



### Total Net Generation Growth

1,079 MU

FY 2023



5,996 MU

FY 2024



### Total generation capacity: 7,245 MW

#### Generation by source

	FY 2024	FY 2023
Thermal	3,508	3,158
Hydro	1,391	1,391
Solar	675	657
Wind	1,671	1,358
Overall	7,245	6,564



Power Plant, Barmer





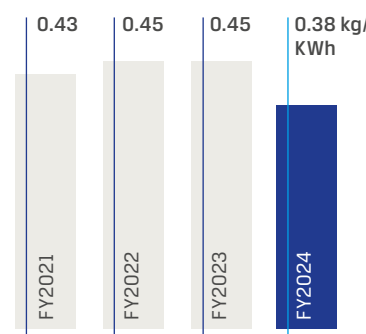
# Our Operational Performance



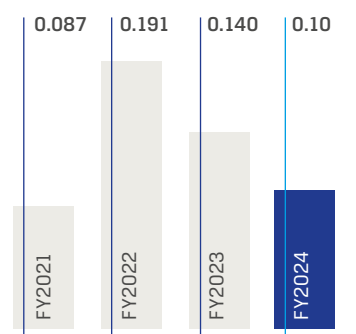
Excellence in our operational efficiency results in one of the lowest impact on the environment, amongst the peers. Optimum utilisation of primary fuels such as coal and lignite, and secondary fuels such as heavy fuel oil and light diesel oil is achieved due to our robust O&M practices. All our plant equipment are regularly refurbished in order to maintain efficiency, besides also implementing stringent standard operating procedures. Also, as the customer's boundary begins right after the Switchyard, there are no losses incurred on power transmission, leading to practically 'zero' transmission issues.

## Key Performance Indicators

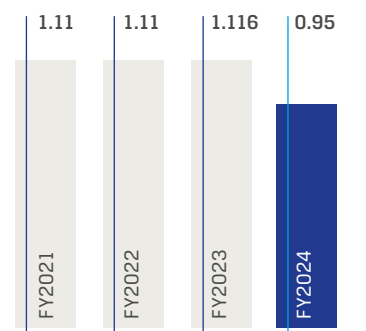
### Specific Coal Consumption (KG/KWh)



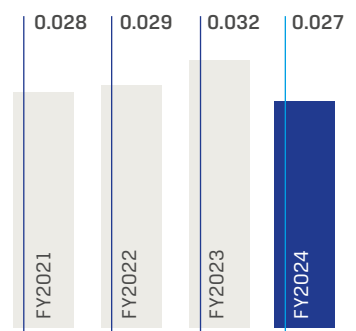
### Specific Oil Consumption (M<sup>3</sup>/MU)



### Specific Raw Water Consumption (M<sup>3</sup>/MWh)



### Specific DM Water Consumption (M<sup>3</sup>/MU)



## Thermal Plants

### Plant Load Factor (%)

	FY 2024	FY 2023
Vijayanagar	58.3	51.2
Barmer	74.7	77.0
Ratnagiri	81.1	59.4
Ind-Barath	63.1	NA
Nandyal	59.7	8.8

## Power Generation in FY 2024

### Total Net Generation 18,526 MUs (Thermal)

#### Generation by source\*

	Net	Gross
Vijayanagar	4,067	4,405
Barmer	6,329	7,084
Ratnagiri	7,850	8,546
Ind-Barath	196	212
Nandyal	84	94

\* Rounded off to nearest integer

CORPORATE  
OVERVIEW

SERVING  
STAKEHOLDERS

CAPITALS AND  
MD&A

STRATEGIES  
FOR GROWTH

BUILT ON  
GOVERNANCE

FINANCIAL  
STATEMENTS

SUPPORTING  
INFORMATION

## Utilisation of Ash in FY 2024

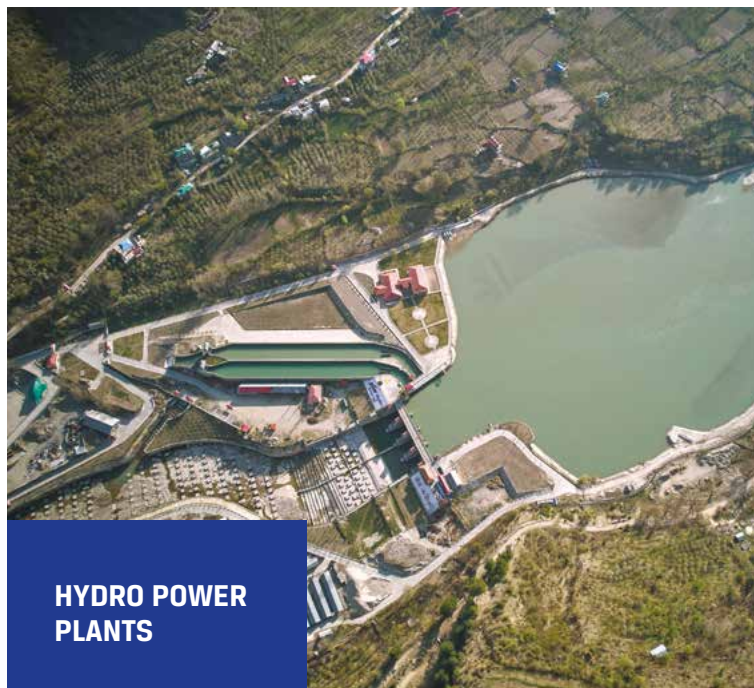
Total Ash Utilised: 13,64,733 MT

Ash Data	Vijayanagar	Barmer	Ratnagiri	Nandyal	Total
<b>Generated (MT)</b>	2,05,904.7	8,67,406.95	264.811	16,563	13,54,685.27
<b>Utilisation (MT)</b>					
Cement companies	1,18,530.4	6,04,366.47	71,619	16,563	
Brick making	33,121.7	2,67,638.89	5,450	0	
RMC	0	0	1,12,038	0	
Mines	0	0	0	0	
Dyke raising	0	0	7,918	0	
Exported through ships	0	0	73,236	0	
Recycled in Boiler	20,726.5	0	0	0	
Used in Projects	33,526.1	0	0	0	
<b>Total Utilised (MT)</b>	<b>2,05,904.7</b>	<b>8,72,005.36</b>	<b>2,70,261</b>	<b>16,563</b>	<b>13,64,733.68</b>
<b>Total Utilised (%)*</b>	<b>100.00</b>	<b>100.53</b>	<b>102.06</b>	<b>100.00</b>	<b>100.74</b>

\* Additional quantity of legacy ash utilised over & above 100% as per requirement



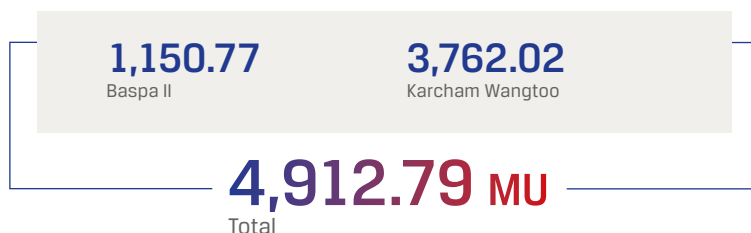
— 45,000 MT Ash Silo at Ratnagiri

**HYDRO POWER  
PLANTS**

Hydro power contributes 19% to our total power generation capacity. Karcham Wangtoo is India's largest private sector hydro power plant, with its total installed capacity of 1,391 MW, and having achieved a plant load factor of 41.89% in FY 2024.

Baspa II has a 15-km transmission line up to the Jhakhri substation. As the customer's boundary starts from this level, it leads to a transmission loss of 7.53 MU. There were no transmission reliability issues with the customer.

A solar power plant of 1.03 MW capacity has been installed at Sholtu. This solar power is used internally for plant operations.

**Power Generated NET****Net Generation of  
Hydro Power Plants**

**4,913 MU**  
FY 2024

**5,595 MU**  
FY 2023

**Power Generation in FY 2024**

Karcham Wangtoo

**3,786.39**  
Gross (MU)

**3,762.02**  
Net (MU)

Baspa II

**1,162.75**  
Gross (MU)

**1,150.77**  
Net (MU)

**Overall Plant Load Factor (PLF) for Hydro Power Plants**

FY 2023

**47.84%**

FY 2024

**41.89%****PLF**

	FY 2024	FY 2023
Karcham Wangtoo	41.25%	46.81%
Baspa II	44.12%	51.44%





## SOLAR POWER PLANTS

JSW Energy is operating a 225 MW Solar Power plant near Vijayanagar, in Karnataka which is captive power plant for JSW Steel Plant at Vijayanagar. Apart from that we have acquired RE solar plants in various states having a 422 MW capacity with other small solar plants across various plant locations totalling about 18 MW add to the operating capacity.

### Net Generation of Solar Power Plants

**1,311 MU**

FY 2024

**417 MU**

FY 2023



## WIND POWER PLANTS

JSW Energy has a 1716 MW operational wind plants which includes SECI IX, SECI X and Acquired RE Wind plants. About 1960 MW of wind projects are under construction which includes SECI IX and X, SECI XII and Captive projects for JSW Steel. The under construction projects are mainly in Tamilnadu, Karnataka and Maharashtra states.

### Net Generation of Wind Power Plants

**3,112 MU**

FY 2024

**34 MU**

FY 2023

### Other Operational Assets

We have a combined capacity of 9 MTPA of lignite through Barmer Lignite Mining Company Limited in Rajasthan, our joint venture with Rajasthan State Mines and Minerals Limited.

We are engaged in trading of power since 2006 through JSWPTC (JSW Power Trading Company Ltd), a wholly-owned subsidiary of the Company.

We have also entered into a joint venture with Maharashtra State

Electricity Transmission Company, Jaigad Power Transco Ltd (JPTL) for two 400 kV transmission lines in Maharashtra.

