

Environmental Stewardship

Environmental Strategy & Compliance Framework

The Climate Action & TCFD

- TCFD Risk Assessment:** Completed a Climate Risk and Adaptation Assessment for the Ratnagiri plant to evaluate acute and chronic physical risks under scenarios SSP2-4.5 and SSP3-7.0.
- GHG Intensity Reduction:** Reduced greenhouse gas emission intensity in FY 2026 by 25% compared to the year 2020 baseline*.
- Internal Carbon Pricing:** Embedded a Shadow Pricing mechanism to evaluate climate-conscious financial impacts for future low-carbon projects.

Water Stewardship

- Water Neutrality Assessments:** Completed a detailed water assessment at the Vijayanagar plant in accordance with NITI Aayog guidelines.
- Water Optimisation (Utkal):** Conserved ~2,70,000 m³ of water annually by diverting excess filter water to the storage tank.
- Conservation Initiatives (Vijayanagar):** Treated cooling tower blowdown to reuse 1,300 million litres of water, utilised 14 million litres of treated sewage for greenbelts, and harvested 1,100 cubic metres of rainwater.

Biodiversity Conservation

- No Net Loss (NNL) Studies:** Launched a mountainous biodiversity risk assessment and NNL evaluation study using drones and GIS at the Karcham-Wangtoo and BASPA-II hydro plants.
- Plantation Drives:** Planted 88,704 saplings collectively during the financial year FY 2026.
- Miyawaki Garden:** Completed a Miyawaki garden development by using native plant species at the JSW Mahanadi plant. (Planted around 27,109 native species)
- Avian Habitat Support:** Installed durable bird nests, feeders, and water trays across renewable sites during World Environment Week 2025.

Conserved ~2,70,000 m³ of water annually by diverting excess filter water to the storage tank.



* Sustainability KPI for JSW Energy is defined from a baseline of 1st April 2020 with the targets to be achieved on or before 31st March 2030.



Waste Management & Circular Economy

- **Zero Waste to Landfill (ZWTL):** Extended Platinum ZWTL certifications to the Ratnagiri, Vijayanagar & Barmer sites initiated ZWTL Assessment for hydropower plants.
- **Waste-to-Value Fuel (Vijayanagar):** Converted bottom ash and mill rejects into supplementary fuel, and repurposed 1,254.95 MT of operational sludge for steel micro-pellet manufacturing.
- **Fly Ash Recycling:** Maintained about 100% recycling and utilisation rate of fly ash and generated wastes.

Clean Energy Generation

- **Green Hydrogen Plant:** Commissioned India's largest commercial 25 MW green hydrogen plant powered by renewable energy, injecting 3,600 TPA of green hydrogen into steelmaking operations at Vijayanagar.
- **Solar Street Lighting:** Expanded grassroots renewable networks by installing 121 solar street lights across peripheral villages to offset 9.4 tonnes of CO₂ annually.

- **Renewable Expansion:**

Achieved active operational milestones of 2,058 MW in solar capacity and 3,656 MW in wind capacity.

- **Digitalisation for Sustainability**

- **Digital Root Platform:**

Digitised green cover tracking by mapping plant trees with GPS tagging and QR codes for carbon sequestration monitoring.

- **Digital E-Log Books:**

Replaced manual registers with digital logs across 4 thermal stations, saving 20,000 paper pages annually.

Environmental Business Imperatives

Sustainability Expansion

- **Decarbonising the Grid:**

Accelerating our impact through massive scale-ups in Renewable Energy (RE) capacity added.

- **Next-Generation Storage & Hydro:**

Ensuring grid stability and reliable clean power by investing heavily in Battery Energy Storage Systems (BESS) and Pumped Storage Project (PSP) Hydro.

- **Green Hydrogen Pioneers:** Spearheading the transition to zero-emission fuels by developing cutting-edge Green Hydrogen infrastructure.

Policy Framework

JSW Energy's commitment is supported by a resilient policy framework that ensures sustainable and responsible resource management across all operations. These policies are designed to align with global best practices and regulatory requirements, driving systematic integration of environmental priorities. Key policies guiding environmental stewardship include:



Climate Change



Energy



Raw Material Consumption



Water Resource Management



Biodiversity



Air Emissions Management



Wastewater



Waste Management

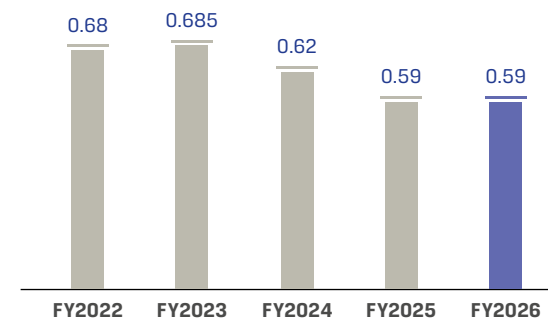
* link for Sustainability Policies: <https://www.jswenergy.in/investors/sustainability-policies/>

Performance Recognitions

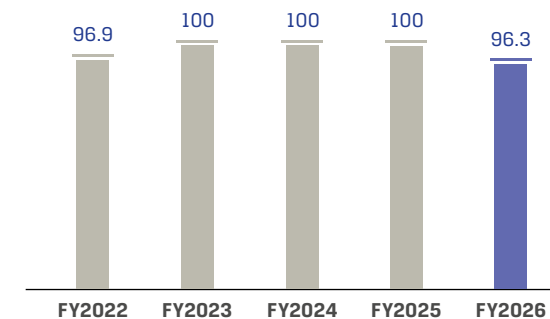
- **MSCI ESG Rating:** A
- **CDP Disclosure:** Climate Change: B, Water: A, Supply Chain: A

Sustainability Performance

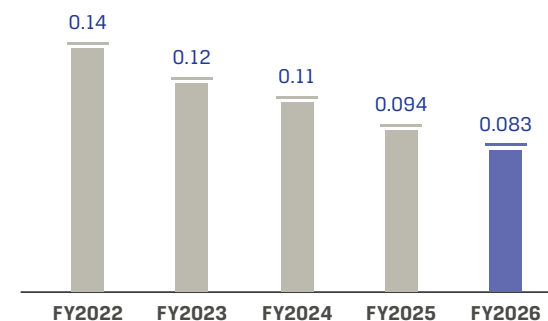
GHG Emissions Intensity (tCO₂/MWh)



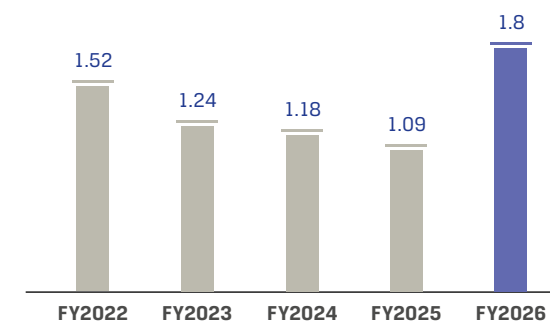
Waste Utilisation (%)



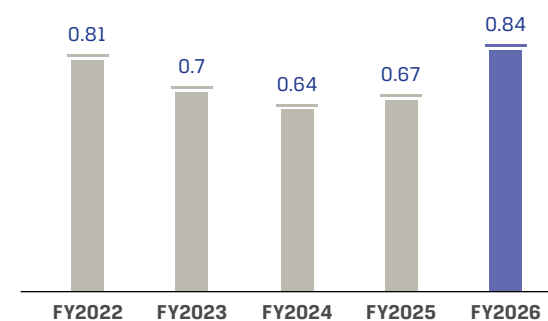
PM (Kg/MWh)



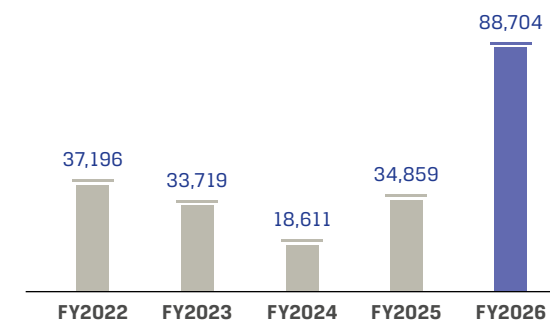
SOx (Kg/MWh)



NOx (Kg/MWh)



Number of Saplings Planted



Climate Action: Driving Climate Resilience – TCFD Alignment

Introduction

Purpose and Scope

Climate change presents both risks and opportunities that can influence long-term business performance and value creation. Recognising these implications, JSW Energy has adopted the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) to strengthen climate governance, improve transparency and enhance resilience across operations.

The TCFD framework enables the Company to identify, assess and manage climate-related risks and opportunities through four key pillars:

- Governance
- Strategy
- Risk Management
- Metrics and Targets

By aligning with the framework, JSW Energy aims to enhance stakeholder confidence, strengthen decision-making and support the transition towards a low-carbon future.

Key Pillars



Governance



Strategy



Risk Management



Metrics and Targets

TCFD Physical Risk Assessment for Ratnagiri Thermal Power Plant

JSW Energy conducted a Climate Risk and Adaptation Assessment (CRA) for the Ratnagiri Thermal Power Plant, which had been identified as a medium-risk asset during Phase I of the TCFD risk assessment. The assessment was undertaken to evaluate both current and future climate-related risks and to strengthen the climate resilience of the plant.

The study aimed to conduct a comprehensive assessment of climate hazards covering:

Acute Physical Risks

- Flood hazard
- Cyclone wind
- Earthquake hazard
- Storm surge and sea waves

Chronic Physical Risks

- Sea-level rise
- Heatwaves

In addition, the assessment quantified potential physical risks and business interruption losses and identified site-specific adaptation measures to enhance resilience. All hazards were analysed under the SSP2-4.5, SSP5-8.5 and SSP3-7.0 climate scenarios using advanced modelling techniques and geospatial datasets.

Outcomes of the Assessment

The assessment indicated that risks associated with floods, cyclones, heatwaves and earthquakes are expected to have predominantly low to moderate impacts across the short, medium and long-term. Risks associated with other identified hazards were found to be largely low.

Based on the findings, mitigation measures were identified and phased across short, medium and long-term horizons to minimise potential impacts on employees,

infrastructure, equipment and plant operations. The assessment report is currently under discussion with the plant team to prioritise and implement short-term adaptation measures.

The study will serve as a strategic foundation for phased climate resilience planning and support the integration of adaptation measures into future infrastructure development and operational processes. Recognising that the financial and operational feasibility of adaptation measures varies across locations, the assessment also provides a broad evaluation of the financial implications associated with potential damages, maintenance requirements and operational disruptions.

Overall, the findings enable JSW Energy to strengthen the resilience of critical assets and support risk-informed investment and operational decision-making.

JSW Energy Ratnagiri power plant

Governance

Climate considerations are embedded within the Company's governance framework, ensuring effective oversight and accountability across all levels of the organisation.

Board Oversight

Climate-related matters are overseen by the Board-level Sustainability Committee comprising the Joint Managing Director & CEO and Independent Directors. The Committee periodically reviews climate risks, opportunities and strategic initiatives and provides direction on long-term sustainability priorities.

At the management level, climate oversight is driven through structured collaboration among the Executive Committee, comprising the JMD & CEO, CFO, CSO, Section Heads and special invitees, which meets monthly to review sustainability performance and integrate climate-related KPIs into decision-making. This is supported by cross-functional

collaboration among the risk, sustainability and strategy teams, which work closely with plant sites to embed climate considerations into business planning and facilitate ongoing risk reviews.



Strategy

As a leading energy company, JSW Energy recognises the critical role it plays in supporting India's energy transition. Guided by the Paris Agreement's 1.5°C pathway, the Company has committed to achieving carbon neutrality by 2050.

The strategy is anchored around:

- Accelerating renewable energy growth
- Strengthening climate resilience
- Improving resource efficiency
- Investing in future-ready technologies
- Supporting India's Net Zero ambitions

JSW Energy is working towards achieving 30 GW of installed generation capacity by FY 2030

while continuously monitoring progress through defined performance indicators.

To evaluate the resilience of the business under different climate futures, JSW Energy considers recognised climate scenarios and transition pathways. Scenario analysis is informed by:

Intergovernmental Panel on Climate Change (IPCC) - Provides climate scenarios and scientific projections to

assess physical climate risks under different greenhouse gas concentration pathways.

International Energy Agency (IEA) - Assesses the impact of climate policies, energy transition pathways and emerging technologies on global energy systems.

Scenario Analysis

JSW Energy utilises a dual-pronged approach to evaluate business resilience under different climate pathways:

1. Business-as-Usual Scenario

IPCC RCP 8.5 (Physical Risks)

This scenario reflects a high-emissions pathway with limited climate action, resulting in significant environmental impacts. It projects a global mean temperature increase of approximately 3.7°C (ranging from 2.6°C to 4.8°C) by 2100, with an increased likelihood of extreme climate events such as heatwaves, droughts, and severe weather conditions. The scenario assumes continued dependence on fossil fuels with minimal mitigation interventions.

IEA WEO 2020 - Stated Policies Scenario (STEPS)

This scenario considers existing and announced policy commitments without additional decarbonisation



measures. It serves as a baseline to evaluate the current trajectory and associated future risks.

2. Optimistic Scenario

IPCC RCP 4.5 (Physical Risks)

This intermediate pathway assumes moderate climate action, with a projected global temperature rise of approximately 1.8°C (ranging from 1.1°C to 2.6°C) by 2100. It reflects the implementation of targeted

emission reduction initiatives and adaptive strategies.

IEA WEO 2020 - Sustainable Development Scenario (SDS) (Transition Risks)

Aligned with the Paris Agreement, this scenario envisions a transition towards net-zero CO₂ emissions in the energy sector by around 2070. It incorporates large-scale adoption of clean energy solutions alongside significant reductions in air pollution.

Risk Category	Key Climate Risks	Response and Adaptation Measures
Physical Risks	Chronic Risk: Long-term changes in climate patterns, including increasing water stress and rising temperatures, may affect operational continuity at several locations. Prolonged heat events can also impact asset efficiency and workforce productivity.	<ul style="list-style-type: none"> Expanding renewable assets across diverse geographies to enhance operational resilience Implementing Zero Liquid Discharge (ZLD) systems to strengthen responsible water management Advancing water efficiency through recycling, reuse and reduction initiatives Conducting site-level water assessments to identify conservation opportunities and improve resource availability Strengthening infrastructure through rainwater harvesting systems, storage facilities and proactive pipeline maintenance Deploying weather monitoring mechanisms to anticipate climate variability and support timely response measures
	Acute Risk: Extreme weather events such as intense rainfall, flooding and cyclones may disrupt plant operations, damage infrastructure and affect the availability of critical resources and services.	
Transition Risks	Policy Risk: The transition to a low carbon economy is accompanied by evolving regulatory requirements. Mechanisms such as the Perform, Achieve and Trade (PAT) scheme, carbon pricing measures and higher levies on fossil fuels could increase operating costs and influence profitability.	We incorporate climate considerations into investment decisions through an Internal Carbon Price (ICP) of USD 11-12/tCO ₂ e, enabling evaluation of low carbon projects and strengthening preparedness for future regulatory developments.
	Market and Consumer Risk: Changing stakeholder expectations and the accelerating shift towards cleaner energy sources may impact demand patterns, expose the business to coal price volatility and affect the long-term viability of carbon intensive assets.	We are expanding renewable energy capacity and improving the efficiency of existing thermal assets through technology upgrades. At Vijayanagar, coal-based boilers are being progressively replaced with systems capable of utilising waste gases supplied by JSW Steel.
	Technology and Reputational Risk: Deployment of emerging low carbon technologies such as battery energy storage systems, pumped hydro and green hydrogen requires significant capital investment and carries execution and commercialisation challenges. In addition, stakeholder perceptions regarding environmental performance can influence reputation and investor confidence.	We continue to pursue a structured low carbon transition supported by robust financial planning and phased project execution. Reducing dependence on fossil fuels and strengthening climate action initiatives help maintain competitiveness while enhancing stakeholder trust and long-term resilience.

Climate-related Opportunities

- Capturing growth in renewable energy: Leveraging the rising demand for clean energy and India's ambition of achieving 500 GW of non-fossil fuel capacity by 2030, we aim to expand our installed capacity from ~13.5 GW to 30 GW by FY 2030, with a significant share of the addition coming from renewable sources
- Leveraging policy and regulatory support: Benefiting from favourable policies and regulatory frameworks that promote low carbon development to accelerate our growth trajectory
- Advancing the Net Zero journey: Remaining committed to achieving carbon neutrality by 2050 or earlier
- Investing in future-ready technologies: Exploring and deploying advanced low carbon technologies, including green hydrogen, Battery Energy Storage Systems (BESS) and carbon circularity solutions to support decarbonisation
- Monitoring emerging opportunities: Continuously tracking market trends, technology developments and policy changes to capitalise on new opportunities and strengthen our position in the energy transition



Risk Management

Processes for Identifying and Assessing Climate-related Risks

We follow a structured and comprehensive framework to identify, assess and manage climate-related risks and opportunities across our operations. The assessment covers both physical and transition risks and enables informed decision-making by evaluating risk exposure across geographies and integrating resilience measures into strategic planning.

Our climate risk assessment framework operates at two levels:

1. Asset-Level Assessment

At the plant and asset level, climate-related risks are identified and assessed using a structured risk matrix based on the likelihood of occurrence and potential impact. Risks are categorised as high, medium or low, enabling prioritisation of mitigation measures and strengthening operational resilience.

The assessment considers both:

Physical Risks

- Acute risks such as floods, cyclones and extreme weather events
- Chronic risks including heat stress, changing precipitation patterns and sea-level rise

Transition Risks

- Policy and regulatory changes
- Market dynamics
- Technological advancements

- Shifts in stakeholder expectations
 - Corporate-Level Assessment
- #### 2. Corporate-Level Assessment
- At the corporate level, climate-related risks and opportunities arising from policy developments, market changes and emerging technologies are evaluated and incorporated into strategic planning and enterprise-wide risk considerations.

Risks are assessed based on their potential impact on business continuity, financial performance and long-term value creation, and are similarly classified as high, medium or low.

Integration into Enterprise Risk Management

Climate-related considerations are integrated into our Enterprise Risk Management (ERM) framework through a structured scenario-based approach. This enables us to:

- Evaluate location-specific exposure to climate-related risks

- Identify high-risk assets based on physical vulnerability and policy sensitivity
- Develop appropriate mitigation and adaptation strategies.
- Support climate-informed investment decisions
- Strengthen long-term resilience across operations

Managing Climate-related Risks

The outcomes of climate risk assessments are integrated into operational and strategic decision-making to:

- Identify priority climate risks and opportunities
- Develop site-specific mitigation and adaptation measures

- Enhance preparedness for climate-related disruptions
- Strengthen resilience across our value chain and operations

For more details refer to Risk Management section of the report page no. 68-69 and 167

Way Forward

Continuous improvement and future actions

- Increase of RE capacity – Solar, Wind, Hydro
- Under construction projects – PSP Hydro
- New Acquisition Hydro-Tidong HEP

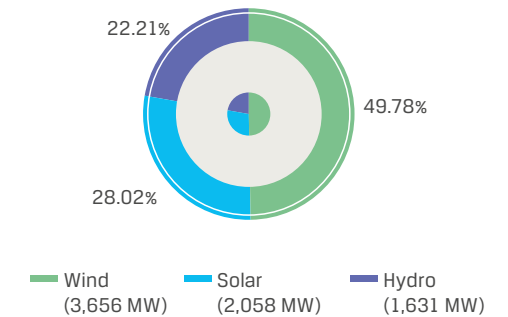
Energy Management

Targets & Performance

Share of Renewable/Thermal in Energy Mix

KPI	FY 2026	FY 2025
Renewable Energy	58% (7,796 MW – Installed Capacity)	48% (5,217 MW – Installed Capacity)
Thermal Energy	42% (5,658 MW – Installed Capacity)	52% (5,658 MW – Installed Capacity)

Share of RE Mix



Gross Generation by Source (MUs)

36,140 MU
Thermal

6,394 MU
Hydro

3,959 MU
Solar

8,087 MU
Wind

Total 54,580 MU

Metrics and Targets

We monitor climate-related performance through defined key performance indicators and targets to effectively manage climate risks and opportunities. Key focus areas include:

- Reduction in GHG emissions
- Improvement in energy efficiency
- Expansion of renewable energy capacity

Emission Target

- Achieve approximately 50% reduction in GHG emission intensity by 2030, against the baseline* 2020.

Performance Monitoring

- In FY 2026, GHG emission intensity reduced by 25% compared to the baseline* 2020.

* Sustainability KPI for JSW Energy is defined from a baseline of 1st April 2020 with the targets to be achieved on or before 31st March 2030.



JSW Energy Ratnagiri power plant

Energy Consumption by Source (GJ)

The Group's energy consumption is monitored to ensure operational eco-efficiency.

Parameter FY 2026 (GJ)

As Per GRI 302

Total fuel consumption :

Renewable: 4,89,804.95 GJ

Non-renewable: 34,64,90,012.51 GJ

Electricity, heating, cooling, steam consumed: 1,59,555.26 GJ

Electricity, Heating, Cooling, Steam Sold (minus): -18,17,50,519.18 GJ

Total Energy Consumption within organisation: 16,53,88,853.54 GJ

Clean Energy – Strategy & Approach

At JSW Energy, clean energy forms the cornerstone of our growth strategy and sustainability



JSW Energy Tuticorin Wind power plant

commitment. With an expanding portfolio across hydro, solar, and wind power, we are actively accelerating the transition towards a low-carbon future. Through continuous investments in scalable renewable technologies and a strong focus on operational excellence, we strive to

deliver reliable, affordable, and environmentally responsible energy solutions.

Aligned with our long-term vision of sustainable value creation, JSW Energy is committed to achieving Net Zero emissions by 2050. As part of this journey, the Company

aims to scale its operational capacity to 30 GW by 2030, with the majority of this growth driven by renewable energy sources. Currently, projects aggregating approximately 10,848 MW – across wind, solar, hybrid and hydro – are under construction, while an additional 2,761 (RE).

This strategic expansion of renewable energy capacity reinforces our position as a leader in the clean energy sector while contributing meaningfully to India's national climate and carbon reduction goals. In parallel, we continue to embed sustainability across our operations by optimising water consumption, strengthening waste management practices, and aligning with globally recognised sustainability standards.

Through these integrated efforts, JSW Energy remains committed to advancing the clean energy transition and shaping a cleaner, greener, and more sustainable future.

- **Solar:** 2,058 MW is operational capacity during FY 2026
- **Wind:** 3,656 MW is operational capacity during FY 2026
- **Green Hydrogen:** JSW Neo Energy, in collaboration with JSW Energy Limited and JSW Steel Limited, has commissioned India's largest commercial green hydrogen plant to drive decarbonisation in steel manufacturing. The 25 MW electrolyser facility, powered entirely by renewable energy, produces 3,600 TPA of ultra-pure green hydrogen, which is injected into the COREX gas network for use in the Direct Reduced Iron (DRI) process at Vijayanagar.

Supported by the Government of India's SIGHT programme, the project demonstrates a scalable model for integrating renewable energy with industrial operations. Initial results show a ~5% increase in DRI production, ~3% reduction in CO₂ emissions per tonne, and improved reductant efficiency and gas utilisation. Additionally, high-purity oxygen generated as a by-product is effectively reused within the plant.

This initiative highlights a significant step towards low-carbon steelmaking, showcasing how green hydrogen can enhance operational efficiency while enabling measurable emissions reduction in a hard-to-abate sector.

Energy Efficiency Initiatives & Management (FY 2026)

The Company utilises the JSW Energy PI System and Integrated Digital Command Centre (IDCC) for real-time data acquisition and analysis across assets.

Initiatives	FY 2026 Progress
Increased Renewable Energy Capacity	2,579 MW
Renewable Energy Projects Under Construction	10,848 MW
Battery Energy Storage System	3.2 GWh (Locked in capacity)
Hydro Pumped Storage Project	26.4 GWh (locked in Capacity)

Optimising APC

Scope

Auxiliary Power Consumption (APC) represents the power used by plant auxiliaries and directly impacts net generation and revenue. Partial load operations typically result in higher APC, necessitating focussed optimisation efforts.

Key Initiatives Implemented:

- **BFP Optimisation:** Operated de-staged BFP resulting in reduction in pump power consumption thereby improving auxiliary power consumption
- Continuous monitoring aligned with load curve
- **FD & PA Fan Optimisation:** Maintained optimal airflow, O₂ levels (>3%), and operated single PA fan at low loads
- **Coal Mill Optimisation:** Operated mills as per load and minimised rejects through classifier modifications
- **ESP Optimisation:** Maintained optimal CR ratio with continuous hopper monitoring
- **CT Fan Optimisation:** Stopped fans during part-load where feasible
- **Auxiliary Systems Optimisation:** Optimised operation of vacuum pumps, ACW pumps, air-washers, and ash handling systems
- **Generator Efficiency:** Maintained hydrogen purity >98.5% to reduce windage losses
- **Compressed Air Optimisation:** Reduced header pressure and optimised AFC operation
- **SWIP & CW Pump Optimisation:** Operated pumps based on load, vacuum, and system parameters

Achievement

- **Ratnagiri Plant** Achieved lowest-ever Monthly APC of 7.54% in FY 2026, surpassing the previous best of 7.65% (Oct-2018).

Expanding Green Lighting Footprint: Decentralised Solar Street Lighting Initiative

Building on the success of its earlier green lighting programme, JSW Neo Energy Limited (JSWNEL) continued its commitment toward sustainable infrastructure and low-carbon communities in FY 2026 by expanding the deployment of solar-powered street lighting systems across multiple operating locations.

Following a structured need assessment survey, a total of 121 solar street lights (30W each) were strategically installed

across peripheral villages of three operating sites:

- **Aspari Wind Site (Andhra Pradesh):** 16 units
- **Shanigaram Solar Site (Telangana):** 15 units
- **Isapur Wind Site (Maharashtra – Hetero Fleet):** 90 units

This move extends the previously installed 121 solar street lights

in FY 2025, thereby doubling the environmental impact and strengthening JSWNEL's decentralised renewable energy footprint. This initiative is backed by a project investment of ₹ 16,59,140 implemented in FY 2026, reinforcing JSWNEL's focus on sustainable infrastructure creation at the grassroots level.

Salient outcomes

- 13,249.5 kWh of renewable electricity annually
- Offsetting approximately 9.4 tonnes of CO₂ emissions per year
- Total Beneficiaries: 19,678 people across multiple villages
- Reliable lighting in areas with limited or no grid infrastructure
- Extends sustainability practices to newly integrated Hetero fleet (Isapur site)
- Cumulative Impact for 242 Solar Street lights– 26,499 KWh of RE generation offsetting 18.8 tonnes of CO₂ emissions in FY 2026



JSW Energy Jaisalmer Solar power plant

Key Operational Achievements & Energy Savings

No.	Description of initiatives on energy reduction	Sustainability Impacts	Nature of initiative	Energy reductions in GJ (Estimated annual average reduction in energy)	GHG emissions saved due to energy saving (MTCO ₂ e)
				FY 2026	
Vijayanagar					
1	SBU1 U1 - Condenser cleaning carried out to reduce condenser DP, leading to lower CW pump power consumption and reduced auxiliary energy usage	Reduced auxiliary power consumption through improved condenser performance, resulting in lower electricity demand, enhanced energy efficiency, reduced indirect GHG emissions, and improved operational reliability of the cooling water system.	Energy Savings	6,816.67	654.45
2	SBU1 U1 - Seal Air Fan VFD installed to optimise fan operation and reduce auxiliary power consumption.	Improved energy efficiency by matching fan speed with operational requirements, leading to lower electricity consumption, reduced auxiliary power demand, lower GHG emissions, and extended equipment life due to optimised operation.	Energy Savings	406.14	39.01
3	SBU2 U2 - Deaerator level control station bypass MOV installed and kept open to minimise CEP throttling losses, reducing auxiliary power consumption.	Reduced energy losses associated with pump throttling, resulting in lower auxiliary power consumption, improved pumping system efficiency, reduced greenhouse gas emissions, and enhanced overall plant energy performance.	Energy Savings	857.21	83.62
4	SBU1 U1 - Improved condenser vacuum achieved through condenser and CW inlet pipe cleaning, resulting in enhanced turbine performance and energy savings.	Improved turbine cycle efficiency and reduced heat rate through enhanced condenser vacuum, leading to lower fuel consumption, reduced greenhouse gas emissions, improved power generation efficiency, and optimised utilisation of natural resources.	Energy Savings due to saving of coal consumption	21,788.46	36,654.65
Total				29,868.48	37,431.74
Jharsuguda					
1	Unit 1 - Hotwell make-up water supplied through gravity flow, enabling stoppage of the hotwell make-up water pump and reducing auxiliary power consumption	Utilisation of gravity-fed hotwell make-up water eliminated the need for continuous operation of the hotwell make-up water pump, reducing auxiliary power consumption, improving energy efficiency, and lowering associated greenhouse gas emissions.	Energy Savings	148.98	105.78
2	Unit #2 - Hotwell make-up water supplied through gravity flow, enabling stoppage of the hotwell make-up water pump and reducing auxiliary power consumption	Gravity-based hotwell make-up water supply reduced dependence on electrically-driven pumping systems, resulting in lower auxiliary power consumption, reduced energy intensity, and decreased greenhouse gas emissions.	Energy Savings	148.98	105.78

No.	Description of initiatives on energy reduction	Sustainability Impacts	Nature of initiative	Energy reductions in GJ (Estimated annual average reduction in energy)	GHG emissions saved due to energy saving (MTCO ₂ e)
				FY 2026	
3	Both Units - Optimised CT fan operation by stopping 9 cooling tower fans during 18:00 hrs to 09:00 hrs at loads above 330 MW, reducing auxiliary power consumption.	Optimisation of cooling tower fan operation by stopping 9 CT fans during low ambient temperature periods reduced auxiliary power consumption while maintaining required cooling performance. This initiative improved energy efficiency, reduced electricity usage, and lowered greenhouse gas emissions associated with power generation.	Energy Savings	4,408.99	3,130.38
4	Replacement of conventional lighting with 36 W LED fixtures, resulting in lower electricity consumption and energy savings.	Replacement of conventional lighting with energy-efficient 36 W LED fixtures reduced electricity consumption, improved lighting efficiency, lowered operational energy costs, and contributed to a reduction in greenhouse gas emissions.	Energy Savings	29.79	21.15
Total				4,736.74	3,363.09
Barmer					
1	APH Tube Plugging done in Unit#6 (Energy savings - 977 KW) Problem - Primary Air (PA) fan, secondary Air (SA) fan and Induced draft (ID) fan Energy consumption was increasing progressively in Unit 6 Boiler due to APH leakage. Solution - Unit shutdown was taken and LHS & RHS PA2 and SA2 APH tube replaced. Benefit - Reduction in Total Fan Power consumption by 977 KW.	Reduced auxiliary power consumption by improving APH efficiency and minimising air leakage losses. The initiative enhanced boiler efficiency, reduced electricity consumption of PA, SA and ID fans, lowered greenhouse gas emissions, and improved overall plant energy performance.	Energy Savings	13,189.63	1,332.15
2	APH Tube Plugging done in Unit#7 (Energy savings - 1,501 KW) Problem - Primary Air (PA) fan, secondary Air (SA) fan and Induced draft (ID) fan Energy consumption was increasing progressively in Unit#7 Boiler due to APH leakage. Solution - Unit shutdown was taken and LHS & RHS SA1 & PA1, LHS PA2 and SA2 APH tube replaced. Benefit - Reduction in Total Fan Power consumption by 1,501 KW.	Improved boiler and APH performance through leakage reduction, resulting in lower auxiliary power consumption, enhanced energy efficiency, reduced greenhouse gas emissions, and improved reliability of combustion air systems.	Energy Savings	6,731.45	679.88
Total				19,921.08	2,012.03

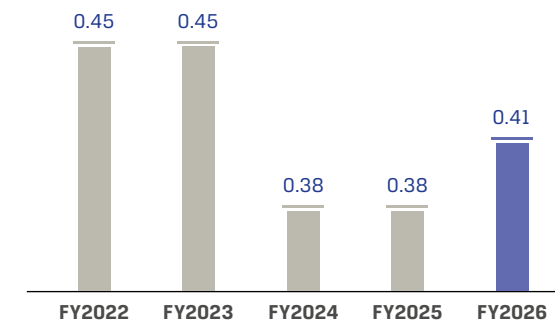
No.	Description of initiatives on energy reduction	Sustainability Impacts	Nature of initiative	Energy reductions in GJ	GHG emissions saved due to energy saving
				(Estimated annual average reduction in energy)	(MTCO ₂ e)
FY 2026					
Ratnagiri					
1	The heat rate improvement of Unit-4 was achieved through a series of targeted efficiency enhancement measures undertaken during the overhaul. Condenser vacuum was significantly improved through thorough condenser cleaning and rectification of air ingress points, resulting in improved turbine performance. Turbine and boiler-side passing valves were repaired to eliminate steam leakages and reduce energy losses. Rectification of HPH-6 and HPH-7 improved feedwater heating effectiveness, thereby reducing heat consumption. In addition, overhauling of major equipment led to a reduction in CEP power consumption, contributing to auxiliary power savings. Collectively, these initiatives enhanced overall plant efficiency, reduced fuel consumption, and improved the unit heat rate.	Improved thermal efficiency and reduced specific fuel consumption through optimisation of turbine, condenser, and feedwater heating systems. The initiative reduced greenhouse gas emissions per unit of electricity generated, lowered auxiliary power consumption, enhanced resource utilisation, and improved overall plant performance.	Heat Rate Improvement & APC Reduction	APC 2,26,440.958 Heatrate 371.535	19,259.48
2	The heat rate improvement of Unit-3 was achieved through a comprehensive set of efficiency enhancement measures implemented during the overhaul. Condenser vacuum was improved through condenser cleaning and rectification of air ingress points, which enhanced turbine efficiency and reduced back pressure. Turbine and boiler-side passing valves were repaired to minimise steam leakages and associated energy losses. The parting plates of HPH-6 and HPH-7 were rectified, improving feedwater heating performance and reducing heat consumption. Additionally, overhauling of the Condensate Extraction Pump (CEP) and associated systems reduced auxiliary power consumption. These initiatives collectively improved overall plant performance, reduced fuel consumption, and contributed to a significant reduction in the unit heat rate.	Enhanced power generation efficiency through reduction in heat consumption and auxiliary power demand. The initiative reduced fuel usage and associated greenhouse gas emissions, improved energy productivity, and strengthened operational reliability and sustainability performance.	Heat Rate Improvement & APC Reduction	APC 1,84,373.069 Heatrate 10,044.915	18,786.82

No.	Description of initiatives on energy reduction	Sustainability Impacts	Nature of initiative	Energy reductions in GJ	GHG emissions saved due to energy saving
				(Estimated annual average reduction in energy)	(MTCO ₂ e)
FY 2026					
Nandyal					
3	The de-staging of BFP-2B in Unit-2 resulted in a reduction in pump power consumption, thereby improving overall auxiliary power performance. This optimisation enhanced operating efficiency and reduced internal power consumption, contributing to lower auxiliary power usage and improved plant efficiency.	Reduced auxiliary power consumption and improved energy efficiency of pumping systems, resulting in lower internal energy demand, reduced indirect greenhouse gas emissions, and improved overall plant efficiency.	Energy Savings	745.77	194.33
Total				4,21,976.25	38,240.63
Nandyal					
1	Only one Seal Air (SA) fan was operated during partial-load operation (4.5–10 MW) instead of multiple fans. Through optimisation of air flow, auxiliary power consumption was reduced, resulting in an estimated energy saving of approximately 35 kWh per hour.	Reduced auxiliary power consumption by optimising Seal Air fan operation during partial-load conditions. The initiative improved energy efficiency, lowered internal electricity demand, and reduced associated greenhouse gas emissions.	Energy Savings	1,015.18	1,167.46
2	During partial-load operation (5–9 MW), only two Drag Chain Feeders were kept in service instead of four. Optimisation of feeder operation reduced auxiliary power consumption, resulting in an observed energy saving of 4.13–4.5 kWh per hour.	Improved energy efficiency through optimised operation of Drag Chain Feeders, resulting in lower auxiliary power consumption, reduced electricity usage, and lower indirect carbon emissions.	Energy Savings	130.52	150.10
3	One field of the Electrostatic Precipitator (ESP) was isolated based on Suspended Particulate Matter (SPM) levels while maintaining environmental compliance. This optimisation reduced ESP power consumption and resulted in an estimated energy saving of 25 kWh.	Reduced electricity consumption of the Electrostatic Precipitator (ESP) while maintaining environmental compliance, resulting in lower auxiliary power demand and reduced greenhouse gas emissions.	Energy Savings	725.13	833.90
4	During part-load operation up to 10 MW, only one Boiler Feed Pump (BFP) was operated instead of multiple pumps. This optimisation reduced auxiliary power consumption and achieved an energy saving of approximately 250 kWh.	Optimised Boiler Feed Pump operation reduced auxiliary power consumption and internal energy use, improving overall plant efficiency and reducing associated GHG emissions.	Energy Savings	7,251.30	8,339.00
5	A Variable Frequency Drive (VFD) was installed on the Condensate Extraction Pump (CEP) to regulate motor speed according to process requirements, thereby reducing power consumption and improving operating efficiency.	Installation of a VFD on the CEP enabled demand-based pump operation, reducing electricity consumption, improving equipment efficiency, and lowering greenhouse gas emissions associated with power use.	Energy Savings	870.16	1,000.68
6	A Variable Frequency Drive (VFD) was installed on the Instrument Air Compressor (IAC) to optimise compressor operation based on air demand, resulting in reduced electricity consumption and improved energy efficiency.	Optimisation of Instrument Air Compressor operation through VFD installation reduced electricity consumption, improved compressed air system efficiency, and contributed to lower GHG emissions.	Energy Savings	522.09	600.41

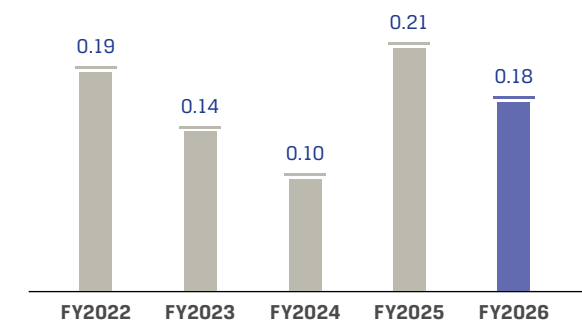
No.	Description of initiatives on energy reduction	Sustainability Impacts	Nature of initiative	Energy reductions in GJ (Estimated annual average reduction in energy)	GHG emissions saved due to energy saving (MTCO ₂ e)
FY 2026					
7	The ash conveying cycle was optimised to reduce the operating duration of ash handling equipment. This initiative lowered auxiliary power consumption and resulted in an energy saving of approximately 75 kWh.	Optimisation of ash conveying cycles reduced operating hours of ash handling equipment, resulting in lower auxiliary power consumption, improved energy efficiency, and reduced carbon emissions.	Energy Savings	2,175.39	2,501.70
8	During full-load operation, bed height was maintained at 480 mmWC instead of the OEM-recommended 650 mmWC. This reduced the loading of Primary Air (PA) and Induced Draft (ID) fans from approximately 80% to 70%, resulting in an observed energy saving of around 500 kWh per day.	Maintaining optimum bed height reduced PA and ID fan loading, lowering auxiliary power consumption and improving boiler operating efficiency, resulting in reduced energy intensity and greenhouse gas emissions.	Energy Savings	14,502.60	16,677.99
9	Instrument Air Compressor discharge pressure was reduced from 7.0 bar to 5.5 bar. Lowering the delivery pressure reduced compressor loading and power consumption, with an expected reduction in energy consumption of approximately 6–10% for every 1 bar decrease in pressure.	Reduction in compressor discharge pressure decreased compressor loading and energy consumption, improving system efficiency, lowering electricity demand, and reducing associated GHG emissions.	Energy Savings	217.54	250.17
10	A VFD was installed on the CHP vibro feeder motor to regulate coal flow as per operational requirements. This optimisation reduced CHP operating hours and associated power consumption, resulting in measurable energy savings.	Installation of a VFD on the CHP vibro feeder motor optimised coal handling operations, reduced electricity consumption, and enhanced overall energy efficiency of the coal handling system.	Energy Savings	580.10	667.12
Total				27,990.02	32,188.52
Gross Total of all Plants				93,678.53	77,784.69



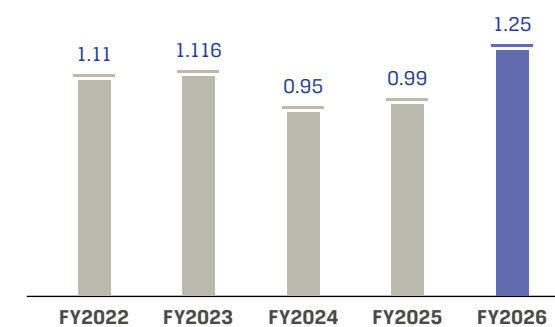
Specific Coal Consumption (KG/KWh)



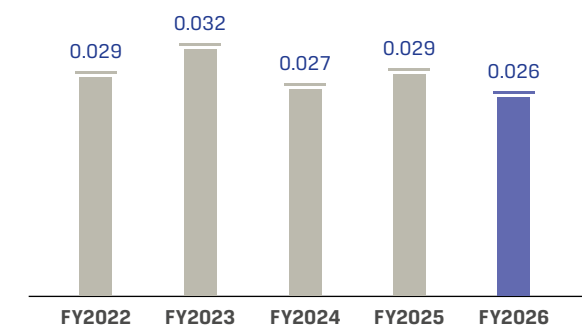
Specific Oil Consumption (M³/KWh)



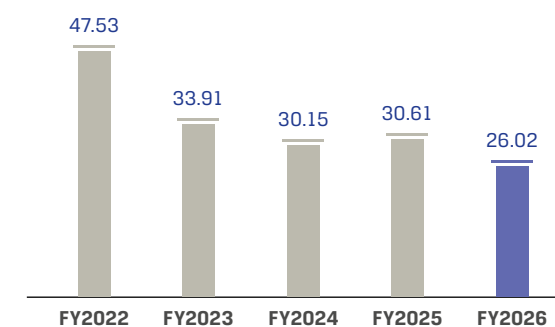
Specific Raw Water Consumption (M³/MWh)



Specific DM Water Consumption (M³/MWh)



Energy Savings (MU)



Research and Development

R&D Laboratory for Advanced Battery Energy Storage Systems (BESS)

We are strengthening the energy transition through indigenous innovation and advanced energy storage technologies. Our dedicated Research and Development laboratory focusses on developing Battery Energy Storage Systems (BESS) and battery pack solutions for commercial and passenger electric mobility applications, supporting the growing demand for reliable and efficient clean energy solutions.

Our R&D capabilities are supported by dedicated facilities for cell characterisation, module testing, pack validation and performance assessment. These facilities enable us to evaluate product safety, reliability and lifecycle performance while maintaining stringent quality standards.

We are actively developing scalable battery solutions in the 30 kWh to 60 kWh range to cater to diverse mobility applications and operating conditions. Leveraging advanced Lithium-Ion (Li-Ion) and Lithium Iron Phosphate (LiFePO4) chemistries, we have developed battery pack configurations for electric buses and commercial mobility platforms that deliver enhanced energy density, faster charging capability and improved operational efficiency.

To ensure reliability under demanding operating conditions, our battery systems are housed in modular enclosures with IP68 protection, providing resistance against dust, water ingress, vibration and thermal stress.

A key component of our technology platform is the Battery Management System (BMS), developed in collaboration with our technology partners and validated by the Automotive Research Association of India (ARAI). The system enables advanced cell monitoring, balancing and thermal protection, ensuring compliance with automotive safety and regulatory requirements.

Our development approach emphasises localisation and self-reliance. Except for lithium-ion cells, our battery packs are engineered, developed and manufactured domestically, supporting the Government of India's Aatmanirbhar Bharat vision and contributing to the development of the local electric mobility ecosystem.

Through continuous innovation and robust validation capabilities,

we are accelerating the development of safe, efficient and cost-effective energy storage solutions that support clean mobility and strengthen India's low-carbon future.

Key Focus Areas

- Battery Energy Storage Systems (BESS) for commercial and industrial applications
- Battery pack solutions for commercial and passenger electric vehicles
- Indigenous product development and localisation
- Safety, reliability and lifecycle optimisation
- Supporting the clean energy transition



Battery Energy Storage Solution (BESS) Plant

Sustainable Financing Framework

Issuance of Green Bonds

JSW Hydro Energy has established a robust Green Bond Framework to mobilise capital for renewable energy.

- **Transparency:** A Green Bond Committee assesses eligible projects annually, ensuring full allocation of proceeds within 24 months of issuance.

Green Financing Framework & Strategy

- **Development undertaken through the usage of Green Bonds**
Proceeds are used to finance run-of-the-river hydro projects and associated infrastructure.

Sustainable Project Financing

As part of its decarbonisation strategy, JSW Energy Limited, through its subsidiary JSW Renewable Energy (Vijayanagar) Limited, initiated a pilot to replace ~2.5% of COREX gas with 5,000 Nm³/hr of green hydrogen in the DRI process of JSW Steel Limited, with potential to scale up to full replacement. The project integrates renewable energy, with ~25 MW of the company's 825 MW solar and wind capacity allocated for hydrogen production.

Bank of Baroda financed part of the ₹ 160 crore project – its first green hydrogen financing – supported by techno-commercial due diligence from BDO based on DPR by TÜV SÜD. The debt was structured considering GST input credits, with repayment aligned to 85% of the project's 7-year economic life, secured by project assets.

Internal Carbon Pricing (ICP) – Future Strategy

JSW Energy addresses climate change by embedding an ICP mechanism to evaluate upcoming low-carbon projects.

- **Approach:** Utilising the Shadow Pricing method to reflect the potential cost of emissions.

- **Implementation of ICP:** The price range is set at USD 11-12 per tonne of CO₂e.
- **Impact:** Promotes the adoption of low-carbon technologies and ensures climate-conscious financial decision-making.

Highlights

JSW Energy integrates internal carbon pricing into its investment and operational decision-making processes, enabling a structured and forward-looking approach to managing climate-related risks and opportunities. This includes the promotion of low-carbon technologies through targeted investments in energy-efficient solutions such as Variable Frequency Drives (VFDs), along with ROI-based evaluation of emission reduction initiatives guided by a defined shadow carbon price.

By embedding carbon pricing within core business functions, the Company enhances accountability for emissions, drives energy optimisation across operations, and fosters innovation in clean energy solutions.

The Internal Carbon Pricing (ICP) framework supports informed, climate-conscious financial decision-making, strengthens long-term resilience, and contributes to sustained stakeholder value creation. Through this approach, JSW Energy reaffirms its commitment to environmental stewardship while advancing towards a more sustainable and climate-resilient energy future.



JSW Energy Jaisalmer solar power plant

Sustainability Benefits from Digital Transformation

JSW Energy Limited | FY 2026

At JSW Energy Limited, sustainability is intrinsically embedded in the Company's operational philosophy, capital deployment decisions, and long term growth strategy. Digital transformation has emerged as a critical enabler in advancing responsible operations, enhancing asset efficiency, strengthening governance, and supporting the Company's transition towards a low carbon and resilient energy portfolio.

During FY 2026, JSW Energy continued to leverage advanced digital platforms across its thermal and renewable operations to improve energy efficiency, reduce environmental footprint, enhance workforce safety, biodiversity tracking and reinforce governance and compliance frameworks.

Digital Initiatives Driving Sustainability Outcomes

Digital E Log Book

E Log Books digitise operator logs and maintenance logs across

4 Thermal locations. The system replaces traditional paper-based operational and maintenance registers with a centralised, secure, and audit-ready digital platform. It enables structured real-time recording of operational parameters, shift logs, maintenance activities, handover notes across units and balance-of-plant operations.

Sustainability Benefits

- Elimination of manual paper based logs (20,000 pages saved annually)
- Enhanced traceability, audit-readiness, and compliance adherence

Digital Root (Digitisation of Green Initiatives)

This initiative digitally maps all trees within the plant premises using GPS tagging and QR codes, creating a centralised digital repository for easy monitoring and management. The solution will support audit ready environmental records, ESG recording, and CSR initiatives, while also providing valuable insights for future plantation, landscaping and biodiversity planning.

The Digital Root platform digitises plantation and green cover tracking JSW Energy locations.

Sustainability Benefits

- Tracking of Native plant varieties
- Enhancement of carbon sequestration
- Easy identification of low vegetation zones
- Support for biodiversity enhancement
- Paperless audit system

Energy Management System (EMS)

The Energy Management System provides real-time visibility of energy consumption of equipment and process, enabling continuous performance optimisation.

Sustainability Benefits

- Reduction in auxiliary power consumption
- Early identification of inefficiencies and abnormal deviations



JSW Energy Mahanadi power plant

CASE STUDY

CPP1 – Optimisation of Boiler Flue Gas Loss

Problem:

At CPP1, the Boiler LP Economiser flue gas bypass gate was operating at 50% open, resulting in sub-optimal heat recovery in the condensate system and increased stack losses, reflected in higher flue gas temperature at the ID fan outlet.

Solution:

The flue gas bypass gate opening was optimised and reduced to 30%, thereby enhancing heat recovery efficiency in the LP economiser and minimising flue gas heat losses.

Benefits Achieved:

1. Increase in condensate temperature by approximately 1.9°C, indicating improved heat recovery.
2. Reduction in flue gas temperature by approximately 3°C, leading to lower stack losses.
3. Annual cost savings of ₹ 47.72 lakhs, achieved through reduced energy losses (at 79% PLF).

CASE STUDY

CPP-2 Optimisation of Condensate Extraction Pump Power at part load

Problem:

At CPP2, auxiliary power consumption began increasing from October 2025 due to reduced generation levels, primarily driven by restricted BF gas availability.

Solution

An opportunity for power optimisation was identified in the Condensate Extraction Pump (CEP) and associated compressors. The CEP Variable Frequency Drive (VFD)

speed was optimised, resulting in a discharge pressure reduction of 0.73, without impacting overall process stability.

Benefits Achieved:

1. Reduction in power consumption by approximately 15 kW.
2. Annual cost savings of ₹ 6.57 lakhs.
3. Reduction in unit Auxiliary Power Consumption (APC) by 0.4% at 65 MW generation.

CASE STUDY

CPP2 – Mitigation of Condenser Vacuum loss

Problem:

The condenser vacuum was deteriorating due to poor cooling tower effectiveness, which declined from 54% to 33%. This was primarily caused by choked and damaged PVC fills, resulting in inadequate cooling performance.

Solution Implemented:

The damaged PVC fills in Cooling Tower Cells 1 and 4 were replaced with advanced trickle grid and cross-flute type fills, designed to prevent choking and enhance heat transfer efficiency.

Benefits Achieved:

1. Improvement in cooling tower effectiveness by 7%, leading to enhanced cooling performance.
2. Increase in condenser vacuum by 0.0156 bar(a), improving overall system efficiency.
3. Reduction in plant heat rate by 37 kcal/kWh, resulting in estimated annual savings of ₹ 1.18 crore (at 62% PLF).

Emission Management

Strategic Framework for Emission Reduction

At JSW Energy, the management of greenhouse gas (GHG) emissions extends beyond operational focus to a core strategic priority. With a defined vision for a low-carbon future, decarbonisation is firmly embedded within the Company's overall business strategy.

Leveraging real-time emissions monitoring, process optimisation, and the adoption of advanced clean technologies, JSW Energy is actively working to reduce its carbon footprint across all assets. The Company has established ambitious climate targets and continues to drive innovation across its value chain to support the transition towards a net-zero economy.

This commitment underscores not only environmental responsibility but also a forward-looking approach to energy leadership – one that is resilient, sustainable, and aligned with global climate objectives.

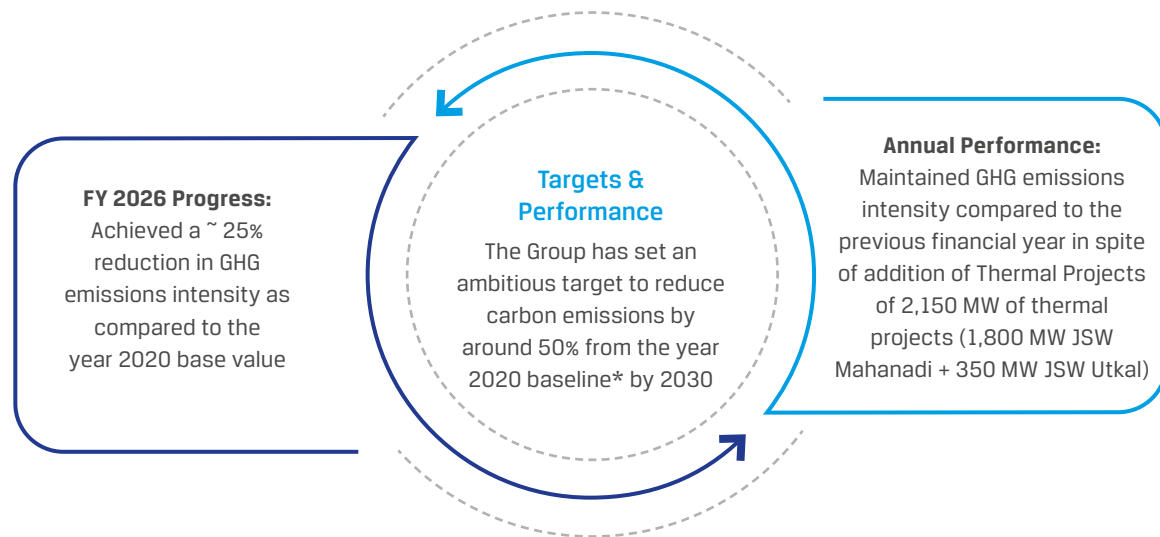
Governance

The Board of Directors provides strategic oversight on climate-related risks and opportunities, including emission reduction and decarbonisation pathways, aligned with the Company's Net Zero 2050 commitment. The Board reviews progress against emission reduction targets, renewable energy expansion, and key climate performance indicators on a periodic basis, ensuring integration of sustainability into long-term business strategy and capital allocation decisions.

At the management level, responsibility for emission reduction is embedded across senior leadership, with dedicated oversight by the Executive Management Committee and Sustainability function. Cross-functional teams drive implementation of decarbonisation initiatives, including energy efficiency improvements, renewable energy integration, and adoption of low-carbon technologies such as green hydrogen.

Sustainability Performance for GHG Emission, Air Emission, Water, Waste, Energy Intensity, and Auxiliary Power Consumption, is regularly monitored through digital platforms and reviewed by senior management. These metrics are increasingly linked to operational performance evaluation and decision-making processes.

The Company also strengthens governance through robust ESG data management systems, internal controls, and assurance mechanisms, ensuring transparency, accountability, and alignment with global frameworks.



*Sustainability KPI for JSW Energy is defined from a baseline of 1st April 2020 with the targets to be achieved on or before 31st March 2030

Decarbonisation Roadmap

JSW Energy's decarbonisation roadmap outlines the actions and milestones supporting the transition towards carbon neutrality.

Key Decarbonisation Levers

- Renewable-led growth:** Accelerating capacity addition through solar, wind and hydro power.
- Energy efficiency:** Optimising plant operations and reducing auxiliary power consumption.
- Supply chain decarbonisation:** Advancing supply chain decarbonisation initiatives and exploring carbon capture and storage solutions.
- Future-ready technologies:** Investing in green hydrogen, Battery Energy Storage Systems (BESS) and pumped hydro storage.

Long-term Milestone

- Achieve carbon neutrality by 2050 or earlier.

GHG Performance Dashboard

KPI	Unit	FY 2026	FY 2025	FY 2024
Scope 1	tCO ₂ e	3,20,85,981.24*	2,05,22,777.86	1,85,24,363.70
Scope 2	tCO ₂ e	43,205.83*	36,661.40	36,577.71
Scope 3	tCO ₂ e	48,48,928.24*	26,64,131.43	17,88,821.65

* Scope 1, Scope 2 & Scope 3 increased from last year due to addition of 350X2 MW & 600X3 MW thermal power plants which were operational for the full year.

Scope 3 Value Chain Assessment (FY 2026)

The Group monitors several categories under Scope 3 to understand its broader impact:

Categories	FY 2026 (tCO ₂ e)
Purchased goods and services	52,345.54
Capital goods	23,842.78
Fuel and energy	47,55,743.05
Upstream transportation and distribution	7,441.70
Waste generated in operations	6,085.45
Business travel	1,747.06
Employee commuting	1,722.66
Total	48,48,928.24

Emission Reduction & Savings Initiatives (FY 2026)

KPI	Energy Reductions (GJ)	GHG Emissions Reduced (MTCO ₂ e)
Barmer	19,921.08	2,012.03
Ratnagiri	11,162.21	2,789.32
Vijayanagar	29,868.48	37,431.74
Nandyal	27,999.02	32,188.52
Jharsuguda	4,736.74	3,363.09
Total	93,678.53	77,784.69

Emission Intensity Trends

Emission Intensity Trends

KPI	Actual		
	FY 2026	FY 2025	FY 2024
GHG Emissions (Scope 1+2) – tCO ₂ e/MWh	0.59	0.59	0.62
GHG Emissions (Scope 1+2) – (tCO ₂ e/revenue)	0.00016	0.00016	0.00015

For more details on energy saving & emission reduction savings, refer page no. 78-82

Emission intensity reduction initiatives are supported by digital monitoring systems enabling real-time optimisation and measurable outcomes.

Green Hydrogen: Innovating for a Carbon Neutral Tomorrow

As part of our commitment to accelerating industrial decarbonisation and supporting India's Net Zero ambitions, we commissioned India's largest commercial green hydrogen plant with a 25 MW electrolyser capacity. Powered entirely by renewable energy, the facility supplies ultra-pure green hydrogen for steelmaking operations at Vijayanagar, demonstrating the potential of clean energy solutions in hard-to-abate sectors.

The project represents a strong example of intra-group collaboration, leveraging JSW Energy's renewable energy portfolio to support low-carbon steel production. Supported under the Government of India's Strategic Interventions for Green Hydrogen Transition (SIGHT) scheme, the initiative reinforces our commitment to advancing innovative technologies that enable sustainable industrial growth.

The plant has an annual production capacity of 3,600 tonnes of green hydrogen and is integrated into the Direct Reduced Iron (DRI) process. Initial operational results have demonstrated approximately

3% reduction in CO₂ emissions per tonne of DRI while improving production efficiency by nearly 5%.

Advanced Technology Enabling Decarbonisation

The facility incorporates advanced alkaline electrolyser technology for efficient and continuous hydrogen generation. Sophisticated PLC-based automation systems with hot redundancy ensure enhanced operational reliability, safety and process control.

In addition to green hydrogen production, the plant recovers high-purity oxygen that is utilised within steelmaking operations, creating additional resource efficiency benefits.

Key Highlights

3,600
TPA
Green H₂ Produced

+5
TPH
DRI Production Gain

~3%
per tDRI
CO₂ Footprint Reduction

28,800
TPA
Oxygen By-product

JSW Energy Green Hydrogen Power Plant



Powered by Renewable Energy

The 25 MW electrolyser is supplied with round-the-clock renewable power from JSW's hybrid energy portfolio comprising a 600 MW wind farm and a 225 MW solar power plant connected through a 400 kV transmission network. This integration enables 100% renewable-based hydrogen production.

Operational Performance

Initial trials have demonstrated encouraging operational outcomes. Hydrogen injection into the DRI process increased hydrogen availability within the furnace gas by approximately 12%, enhancing the reducing capacity of the system and contributing to higher productivity.

The project also improved reductant efficiency, resulting in lower reductant consumption per tonne of DRI and enhanced utilisation of both hydrogen and carbon monoxide within the furnace. These improvements translated into measurable decarbonisation benefits, reducing the carbon footprint of DRI production by approximately 3% at current injection levels.

Scaling the Transition

Building on the success of initial operations, we are focussed on:

- Extending trial durations across varying operating conditions to develop a robust performance dataset
- Optimising hydrogen injection strategies to maximise environmental and economic benefits
- Leveraging operational learnings to support future green hydrogen projects across the JSW Group



JSW Energy Green Hydrogen Power Plant

JSW Energy Green Hydrogen Power Plant

FY 2026 Performance

(November 2025 – March 2026)

Green Hydrogen Production:

1,14,31,996.4 Nm³

Oxygen Production:

53,69,787.62 Nm³

All key performance indicators of the Green Hydrogen Plant have been independently verified and assured, providing confidence in the accuracy and reliability of the reported performance.

Water Management

Our Water Stewardship Strategy

JSW Energy recognises water as a critical resource for both operational efficiency and ecological balance. It plays a vital role in key processes such as cooling, ash handling, and fire protection across the Company's power generation facilities.

In response to growing water-related challenges, JSW Energy has implemented structured

frameworks to monitor, assess, and manage associated risks. The Company continues to prioritise improvements in water use efficiency while ensuring reliable availability for its operations as well as for neighbouring communities.

These efforts reflect JSW Energy's broader commitment to responsible resource management and long-term environmental stewardship.

JSW Energy commits to proactively engage in the conservation of water across all its locations in line with its Water Management Policy which serves as a directive for establishing Water Management Strategies, systems, processes, practices and initiatives, keeping in view Sustainability aspects to:

- Comply with Legal requirements
- Minimise its water footprint
- Maintain desired water quality during processes and discharges, if any



* Sustainability KPI for JSW Energy is defined from a baseline of 1st April 2020 with the targets to be achieved on or before 31st March 2030.



JSW Energy Barmer Power Plant

Water Withdrawal (by Source) – FY 2026

Source	Unit	FY 2026	FY 2025	FY 2024
Groundwater	Kl	6,43,153.54	5,16,695.67	6,14,920.19
Surface water	Kl	7,22,36,864.38*	3,48,54,014.73	2,81,78,602.14
Third-party water	Kl	40,980.80	39,357.73	43,059.57
Seawater	Kl	8,33,93,700.51	9,12,68,315	8,09,71,172
Total	Kl	15,63,14,699.23	12,66,78,383	10,98,07,753.90

Surface Water withdrawal increased from last year due to addition of 350X2 MW & 600X3 MW thermal power plants which were operational for the full year.

Water Intensity & Trends

Environmental Parameter	KPI	Actual			Target
		FY 2026	FY 2025	FY 2024	FY 2030
Water Security	Sp. Freshwater intake (m ³ /MWh)	1.257	0.99	0.95	0.68

Mitigating Water Risk in High Stress Areas

Managing water stress remains a key priority for JSW Energy, particularly for facilities located in high-risk regions experiencing increasing scarcity and climate variability. With rising instances of chronic water shortages and extreme events such as floods and cyclones, the Company has adopted a proactive approach to ensure operational continuity.

Key initiatives include the implementation of zero liquid discharge across all sites, reduction in specific freshwater consumption, and enhancement of on-site water storage capacity. These measures are further supported by weather monitoring systems that track rainfall patterns and enable timely risk assessments.

Collectively, these actions strengthen operational resilience while promoting responsible and efficient water use across the energy value chain.

For more details on Water Consumption from water stressed areas please refer, to BRSR Page no. 354-355 and 359

Water Withdrawal from Water Stress Area (kl)

JSW Energy's key operational locations – are Barmer, Ratnagiri, Vijayanagar, Mahanadi (CG) and Hydro – are spread across regions with varying degrees of water stress, underscoring the importance of efficient water management for sustainable power generation.

Water Management in Water Stress Region

At the Ratnagiri plant, seawater is utilised within a closed-loop system solely for cooling applications and is not used in production processes, thereby significantly reducing dependence on freshwater resources.

Water consumption and discharge practices across these sites are aligned with the principles set out under Principle 6 of the BRSR, reflecting the Company's commitment to responsible water management.

Water Neutrality in Operations

Amid escalating environmental challenges such as water scarcity, pollution, and increasing waste generation, sustainable development has emerged as a global priority. In alignment with the United Nations Sustainable Development Goals, there is a growing emphasis on restoring and preserving natural ecosystems. With finite natural resources and rising demand, sustainability has become increasingly critical for long-term resilience. Water-related issues, including scarcity and pollution, are now recognised as significant global risks for businesses, with water also emerging as a key financial risk factor. Addressing these challenges requires a comprehensive approach that considers both site-specific conditions and broader watershed-level impacts, alongside a clear understanding of water dependencies across operational supply chains.

In response to these imperatives, JSW Energy has undertaken a detailed water assessment at its Barmer power plant, with a long-term vision of achieving Water Neutrality and progressing towards Water Positivity. The Scope 1 Water Neutrality assessment was conducted in accordance with NITI Aayog guidelines and included an on-site evaluation of the plant's water profile.

Water Audit (FY 2026)

Barmer Plant:

JSW Energy completed a water neutrality assessment at the Barmer plant in the previous year, achieving recognition as a 'Water Neutrality Aspiring Plant'.

In FY 2026, the Company has conducted a comprehensive water assessment for the Vijayanagar Thermal Power Plant, with a long-term objective of progressing towards water neutrality.

A similar assessment is planned for the Ratnagiri plant in FY 2027, further strengthening the Company's water stewardship roadmap.

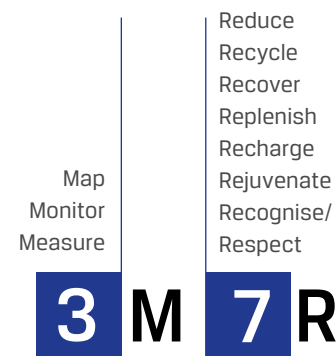
The Water Neutrality Scope 1 assessment, is conducted in accordance with NITI Aayog guidelines. This Scope 1 certification includes site visit to evaluate the water status of the plant.

Scope I Certification, as part of the overall Water Status Framework, covers the following components as shown in the schematic below:

1. Plant water consumption of real water.
2. Opportunities to maximise (operational efficiency) through 3M7R approach.
3. Define real water resource offset.
4. Map, delineate and characterise plant's watershed including mapping of water conservation interventions undertaken by the plant.

From FY 2028 onwards, JSW Energy plans to extend similar water stewardship programmes across remaining thermal power plants. The focus will be on optimising water consumption, enhancing efficiency, and advancing towards water neutrality, with a long-term ambition of achieving water positivity through structured conservation and reuse initiatives.

- **Rainwater Harvesting:** JSW Energy has implemented rainwater harvesting systems across its major thermal power operations to enhance water conservation and reduce dependence on external water sources. These systems are designed to capture, store, and recharge rainwater, contributing to improved water security and supporting the Company's water stewardship and sustainability objectives



Water Management Initiatives

Optimising Water Management at JSW Energy (Utkal) Ltd

At JSW Energy (Utkal) Ltd, Odisha, water stewardship remains a key priority, given the resource-intensive nature of operations and the increasing need for sustainable water management in water-stressed regions. During the year, the Company implemented a targeted initiative to optimise water usage within its DM plant operations, enhancing both resource efficiency and environmental performance.

Context and Challenge

The DM plant, operating approximately 10 hours daily to meet a drinking water demand of 100 m³/day, faced significant inefficiencies due to inadequate intermediate storage capacity between the Multigrade Filter (MGF) and Ultrafiltration (UF) units. This limitation resulted in excess water (approximately 75 m³/h) being discharged, leading to avoidable water and energy losses.

Intervention

To address this, the Company undertook a structured optimisation initiative involving cross-functional collaboration across Mechanical, Electrical, Civil, and OSTs teams. Through a Management of Change (MOC) approach, excess water from the MGF unit was successfully diverted to the Clarified Water Storage Tank (CWST), leveraging existing infrastructure. The intervention was supported by necessary approvals and risk assessments to ensure safe and efficient implementation.

Key Outcomes

The initiative delivered measurable environmental and economic benefits:

- Water conserved: ~75 m³/hour (~2,70,000 m³ annually)
- Cost savings: ~₹ 2.97 million per annum
- Energy savings: Reduction in power consumption associated with avoided water treatment and discharge

Impact

This initiative significantly improved operational efficiency while reducing the plant's water footprint. It also contributed to:

- Strengthening water security for both operations and the surrounding community
- Lowering environmental impact through reduced water wastage
- Enhancing overall process efficiency through better utilisation of existing systems

JSW Energy Sandur Wind Power Plant



JSW Energy Limited, Vijayanagar

1. JSW Energy has undertaken multiple water conservation initiatives aimed at reducing the consumption of freshwater resources. To minimise cooling tower blowdown, a state-of-the-art Reverse Osmosis (RO) recycling plant has been installed to treat blowdown water. The RO plant has successfully produced approximately 1,300 million litres of high-quality product water, which is reused as makeup water in cooling

towers, significantly reducing freshwater dependency. Additionally, the plant generates around 423 million litres of rejected water, which, instead of being discharged, is innovatively reused in an ore beneficiation plant for mineral extraction. This approach not only reduces freshwater consumption but also lowers operational costs and environmental impact.

2. JSW Energy has demonstrated its commitment to sustainable development by utilising treated sewage water for greenbelt development. An advanced sprinkler system has been installed to ensure efficient water usage. The treated water undergoes stringent filtration before being used for non-potable purposes. Currently, approximately 14 million litres of treated sewage water are being utilised for

maintaining the greenbelt. This initiative conserves freshwater resources, reduces wastewater discharge, and contributes to environmental benefits such as improved air quality, carbon sequestration, and mitigation of the urban heat island effect.

3. A rooftop rainwater harvesting system has been implemented at the thermal power plant to reduce dependence on external water sources. The system captures and stores rainwater during the monsoon season, which is then utilised as makeup water in cooling towers. This initiative has enabled the conservation of approximately 1,100 cubic metres of water annually. Additionally, the use of harvested rainwater reduces the energy required for water extraction and transportation, thereby lowering the plant's carbon footprint.
4. JSW Energy has introduced a revised cooling water chemical treatment regime, resulting in a 10% reduction in cooling water blowdown and an increase in Cycles of Concentration (COC). The enhanced COC reflects improved efficiency in water utilisation within the cooling system. The revised regime incorporates advanced chemical formulations that prevent scaling, corrosion, and biological growth. This initiative reduces water consumption, minimises discharge, and enhances operational efficiency.
5. The company has initiated measures to improve the efficiency of its RO plant by upgrading ultrafiltration (UF) membranes. Non-foulant membranes are being replaced with advanced anti-foulant



JSW Energy Sandur Wind Power Plant

membranes, along with the installation of an improved pre-treatment system. These enhancements will reduce membrane fouling, extend membrane life, and improve overall plant efficiency, leading to significant water and cost savings.

6. An initiative has been implemented to divert RO product water to the Demineralisation (DM) plant. This has significantly reduced water losses during the regeneration process. As a result, the DM plant has achieved approximately a 30% reduction in regeneration water losses, leading to improved output efficiency and reduced overall water consumption, along with associated cost savings. 35,000 m³ Water Reservoir - Strengthening Water Security To address water scarcity risks and ensure reliable supply, JSW

Energy Ratnagiri constructed a 35,000 m³ water reservoir within the plant. The reservoir stores rainwater and utility water for use during low availability periods.

Impact

- Ensures 10–13 days of water availability during shortages
- Enhances operational reliability and resilience
- Promotes water conservation and efficient resource management

Conclusion

This initiative strengthens water security and climate resilience, supporting sustainable and uninterrupted plant operations.

Transforming Lives Through Safe & Sustainable Drinking Water

Advancing Community Health through Sustainable Water Solutions - Access to safe and clean drinking water is a fundamental human right, yet many rural communities continue to face challenges due to high levels of Total Dissolved Solids (TDS), fluoride, and microbial contamination in groundwater. Addressing this critical need, JSW Neo Energy Limited (JSWNEL) has undertaken a focussed intervention to provide safe and reliable drinking water under its community development initiatives.

In November 2025, JSWNEL established a 1,000 LPH capacity water purification plant at Burgula Village, Andhra Pradesh, aimed at improving public health and reducing the burden of water-

borne diseases. The initiative is designed not merely as infrastructure support but as a sustainable, community-owned solution.

Programme Approach & Implementation

The project follows a self-sustaining model, ensuring long-term viability:

- Deployment of UV-based water purification technology to remove impurities and harmful microorganisms
- Adoption of an entrepreneur-led model, empowering local individuals to manage operations
- Formal handover to the Gram Panchayat for continued operation and maintenance
- Introduction of Any Time Water (ATW) card system to ensure equitable and reliable access



JSW Energy Vijayanagar Power Plant

Key Implementation Activities

- Supply and installation of 1,000 LPH water purification system
- Execution of civil and electrical works, including shed construction
- Installation and commissioning of plant machinery
- Training of local operators for effective management
- Establishment of operation & maintenance (O&M) framework

Impact Highlights

- Project Investment: ₹ 8,15,000
- Location: Burgula Village, Andhra Pradesh
- Beneficiaries: ~3,000 individuals across 694 households
- Access Model: Continuous water availability through ATW cards
- Additional Support: Distribution of 20-litre water cans to households

The project has been successfully handed over to the local Gram Panchayat, ensuring sustained operation through community ownership. By combining technology, community participation, and a self-sustaining operational model, the project delivers clean water access, improved health, and enhanced quality of life, contributing directly to a resilient and healthier rural ecosystem.

WASTEWATER AND EFFLUENT MANAGEMENT

Strategic Approach

JSW Energy remains firmly committed to its Zero Liquid Discharge (ZLD) strategy, ensuring that all process wastewater is effectively treated, recycled, and reused within plant premises. This closed-loop approach eliminates

external effluent discharge, significantly reducing freshwater withdrawal and improving overall water use efficiency.

In FY 2026, approximately 65,76,419 m³ of water was recycled and reused across operations. The treated water

was reintegrated into operational processes or repurposed for applications such as horticulture, reflecting the Company's proactive approach to responsible water management and its alignment with long-term sustainability objectives.



JSW Energy Barmer Power Plant

Initiatives undertaken to maintain ZLD status

1. Enhancing water circularity through treated wastewater reuse, process optimisation, and reduced effluent discharge.
2. 20,42,264 m³ Re-using treated process water and STP water in Horticulture

Water Recycling & Reuse Performance

KPI	Unit	FY 2026	FY 2025	FY 2024
Wastewater recycled & reused	kl	65,76,418	40,13,965	41,61,333
Water recycling & reusing*	%	10%	12%	14.75%

* % of total water recycled, reused / total water consumption for power production

CASE STUDY

Wastewater Reuse

JSW Energy Vijayanagar Plant has implemented a structured initiative to reuse treated sewage water for greenbelt development, supporting efficient water utilisation and reduced reliance on freshwater sources. The treated water undergoes adequate filtration and quality checks before being deployed for non-potable applications within the plant.

An automated sprinkler system has been introduced to optimise irrigation efficiency and ensure controlled usage. This approach has enabled the Company to minimise wastewater discharge while improving on-site water circularity.

During the year, approximately 14 million litres of treated sewage water was utilised for maintaining the greenbelt. In addition to conserving water, the initiative has contributed to improved local air quality, enhanced green cover, and micro-climate regulation.

This initiative reflects a practical approach to responsible water management and resource optimisation, aligned with the Company's broader sustainability objectives in water-stressed regions.

Waste Management

Strategic Framework

Transitioning to Circular Economy

At JSW Energy, minimising environmental impact is a fundamental priority that informs our business decisions and operational practices. As a large-scale energy producer, we manage complex processes that generate diverse waste streams, including hazardous materials. Recognising this responsibility, we have implemented robust and sustainable waste management strategies focussed on safe disposal, regulatory compliance, and resource recovery.

Guided by the principles of circularity, we actively pursue initiatives such as recycling rejected coal and hazardous waste, as well as repurposing ash for utilisation in cement manufacturing. These practices not only reduce waste generation but also enable efficient resource utilisation across value chains.

Through these focussed efforts, JSW Energy continues to lower its environmental footprint while reinforcing its commitment to long-term ecological sustainability.

The Group ensures the safe and compliant handling of all waste categories. (Disposed through Authorised recycler/Vendor)

Waste Disposed (FY 2026)

288.198 MT

Hazardous Waste (including Biomedical Waste)

57,56,901.96 MT

Non-Hazardous Waste

Waste Generated (FY 2026)

Type of Waste Generated	FY 2026	FY 2025	FY 2024
Hazardous Waste (MT)	234.674 (E waste : 31.255+Biomedical Waste: 1.1927+incinerated ash:0.014, battery:61.11, waste oil, oil soaked cotton:141.102)	176.20 (including Biomedical Waste)	166.12
Non-Hazardous Waste (MT)	59,78,740.866 (fly ash : 59,73,089.47+Plastic Waste:18.446+ C & D:0.01+Scrap: 2222.97+Primary sludge: 1254.95+food waste:2155.02)	21,54,203.07	13,64,733

Waste Recycling

KPI	Unit	Waste disposal/diverted (Recycle/Reuse/Incinerated/Landfill)	Waste Utilisation		
			FY 2026	FY 2025	FY 2024
Non-Hazardous Waste (including Ash)	MT	Recycled	1,254.49 (Primary sludge)	1,166.90	1,213.76
		Re-used	57,53,491.53 (Flyash : 57,52,218.68+Plastic 20.69 +Scrap1252.16)	21,86,731.81	13,65,192.70
		Other recovery (composting)	2,155.02 (food waste)	4.49	1,997.16
		Incineration	1.1997 (1.1927 Biomedical waste+ 0.007 Incinerated ash)	0.930	0.135
		Landfilling	0	0	0.564
Hazardous Waste	MT	Other disposal operations	286.998 (Ued oil+oil soaked cotton: 118.277+Ewaste+Battery: 168.721)	166.04	165.42

Fly Ash Waste Utilisation

Fly Ash Utilisation streams	Ratnagiri	Barmer	Vijayanagar	Utkal	Mahanadi	Nandyal	Total
Total Ash Generation (Tonne)	3,31,535.32	9,33,026.72	2,74,824.26	14,65,103.00	29,41,268.47	27,331.96	59,73,089.73
Cement companies	80,737.09	6,51,027.04	1,83,608.30	38,500.30	10,10,912.62	27,331.34	19,92,116.69
Brick making	0	2,70,909.88	12,515.70	0	1,18,351.48	0	4,01,777.06
Reuse (Including BA)	0	0	34,456.90	0	0	0	34,456.90
RMC	1,70,082.72	0	0	0	2,144.06	0	1,72,226.78
Mines	0	0	0	0	16,18,829.34	0	16,18,829.34
Road construction	0	0	226.36	0	0	0	226.36
Projects	0	0	25,602.50	0	0	0	25,602.50
Bottom Ash (excluding reuse)	0	0	18,414.50	0	0	0	18,414.50
Dyke raising	28,737.00	0	0	0	0	0	28,737.00
Export Silo	68,450.00	0	0	0	0	0	68,450.00
Low Lying Area	0	0	0	1,49,112.32	2,41,866.16	0	3,90,978.48
Bricks, Blocks, Tiles, any other ash based material Outside	0	0	0	3,81,479.22	0	0	3,81,479.22
Any other activity (NHAI/PWD/RD Road and infra development project)	0	0	0	6,18,923.30	0	0	6,18,923.30
Total Ash Utilisation (Tonne)	3,48,006.81	9,21,936.92	2,74,824.26	11,88,015.14	29,92,103.66	27,331.96	57,52,218.75
% of Ash Utilisation	104.97%	98.81%	100.00%	81.09%	101.73%	100.00%	96.30%

Circularity Principle at JSW Energy

At JSW Energy, circularity forms the foundation of its waste management approach. The focus is on reducing waste generation, enhancing resource recovery, and ensuring safe and compliant disposal practices.

Both hazardous and non-hazardous wastes are managed through collaborations with authorised recyclers and co-processors, enabling a regenerative system that minimises environmental impact and supports the Company's broader sustainability objectives.

Management of Hazardous & Non-Hazardous Waste

JSW Energy ensures the safe and compliant management of hazardous materials, including waste oil, e-waste, used batteries, oil soaked cotton & other hazardous waste, if any. Non-hazardous waste like Scraps (Metal, wood), plastic waste. These materials are stored in designated, safety-compliant areas (Waste Yard) and handled through authorised recyclers, ensuring responsible disposal with minimal environmental impact.

For non-hazardous waste, particularly ash generated from thermal power operations, the

Company has established robust systems for collection, storage, and utilisation. Ash is stored in dedicated silos and supplied to cement and brick manufacturers, promoting circular economy practices. Notably, the Ratnagiri plant has developed a 45,000 MT ash silo at a nearby port, facilitating efficient export for international reuse and further enhancing resource efficiency (around 68.5 MT Flyash exported).

Initiatives in the fields of Waste Management

Waste to Value | Vijayanagar Power Plant

The Context

The Vijayanagar Power Plant generates waste streams such as bottom ash and mill rejects, which were historically disposed of in landfills, leading to increased costs and environmental impact.

Innovative Approach

Recognising the high calorific value of these materials, the Company implemented an innovative process to convert bottom ash and mill rejects into a viable alternative fuel. Additionally, pre-treatment sludge generated during operations was repurposed through external industrial collaboration.

The Solution

Through process optimisation and cross-functional efforts, waste materials were successfully transformed into a supplementary fuel source. Further, 1,254.95 MT of pre-treatment sludge was supplied to a nearby steel plant for utilisation in its micro pellet manufacturing process.

Impact

- Significant reduction in waste sent to landfill
- Recovery of value through alternative fuel generation
- 1,254.95 MT of sludge reused through industrial symbiosis
- Lower waste management costs and improved resource efficiency



Advancing waste circularity-maximising ash utilisation and converting waste into value through industrial symbiosis.

CASE STUDY

Improving Fly Ash Handling System Reliability by Installing Polycarbonate

Pneumatic Panels

Fly Ash Handling System – Pneumatic Optimisation

Severe corrosion in pneumatic panels and air leakages from hose connections were impacting the reliability of the fly ash conveying system at JSW Energy Ratnagiri. To address this, 25 new polycarbonate pneumatic panels were installed and hose pipes were

replaced with copper tubing, along with upgraded valves, gauges, and fittings.

This resulted in reduced air leakages (0.4 kg/cm² pressure improvement), stable pneumatic supply, and smoother ash conveying. The initiative enhanced system reliability, operational efficiency, and ash transport performance, supporting overall plant stability and sustainability.

Zero Waste to Landfill Certification (ZWTL)

All our major thermal power plants – Ratnagiri, Barmer, and Vijayanagar – have achieved 'Platinum' certification for ZWTL in the previous year i.e. more than 95% of total waste diverted from landfill, reflecting our endeavour commitment towards waste management practices and adherence to Zero Waste to Landfill (ZWTL) principles. These certifications underscore the effective implementation of waste minimisation, segregation, recycling, and authorised co processing measures across thermal operations.

ZWTL Methodology

The certification process reviews the system prevailing in the plant for the management of waste materials which includes the following steps as covered under the key principles of the NITI Aayog ZWTL Framework -

- Waste identification and segregation at source
- Waste minimisation and process optimisation
- Maximum reuse, recycling, and resource recovery

- Co-processing and authorised disposal targeting > 90% diversion of waste from landfill
- Robust monitoring, documentation, and disclosure

Subsequent to the ZWTL certification, annual surveillance for the ZWTL management has to be done through the certifying agency every year. The surveillance is also being done as required by the agency in co-ordination with our plant teams.

Building on this strong foundation, similar ZWTL assessment has also been conducted at our hydro power plants, with a focus on

strengthening circular waste practices, enhancing resource efficiency, and achieving consistent sustainability performance across the entire generation portfolio. The ZWTL certification process for the hydropower plant is in progress.

The Group will continue efforts to secure ZWTL certifications for additional plants in the coming financial year. Future focus remains on shifting from linear disposal to circular resource recovery and enhancing industrial symbiosis between the energy and construction sectors.



JSW Energy Ratnagiri power plant

CASE STUDY

Waste to Value: Embedding Circular Economy at Sholtu

At JSW Hydro Energy Limited, Sholtu, environmental stewardship and resource efficiency are embedded into operational strategy. During FY 2026, the Company commissioned a 5 TPD Solid Waste Management Facility at Kaksthal, strengthening its approach towards structured, compliant, and sustainable waste management.

The facility adopts an integrated waste management framework centred on segregation, treatment, and resource recovery. Biodegradable waste is processed using bio-enzyme-based treatment, enabling environmentally responsible

decomposition and reintegration into natural cycles. Recyclable fractions, including plastic and glass, are systematically segregated and channelled into authorised recycling streams, promoting material circularity.

This initiative demonstrates Company's commitment to minimising landfill dependency, enhancing waste diversion, and aligning with circular economy principles. It also reinforces a site-level culture of responsible waste handling, supporting on pollution prevention, resource conservation, and sustainable operations.



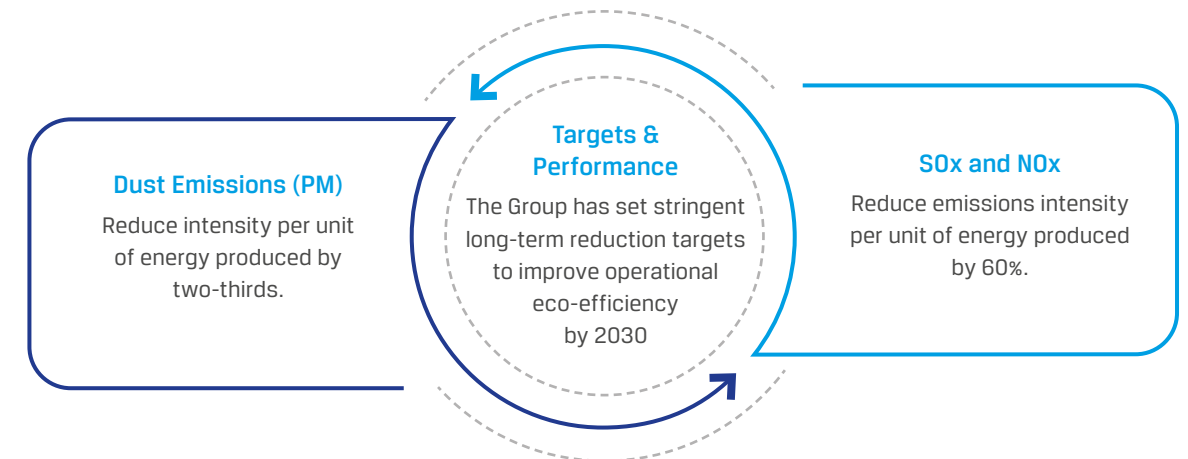
Solid Waste Management Facility JSW Hydro Sholtu

Air Emissions

Strategic Framework

Recognising the environmental implications of conventional power generation, JSW Energy has positioned air quality management as a key pillar of its sustainability strategy. The management of gaseous emissions extends beyond regulatory compliance, reflecting the Company's strong commitment to responsible operations and environmental stewardship.

To effectively control emissions, JSW Energy has implemented advanced, state-of-the-art technologies across its facilities, ensuring improved air quality and reduced environmental impact.



Air Emission Intensity

KPI	Unit	FY 2026	FY 2025	FY 2024
Sp. PM	Kg/MWh	0.083	0.094	0.11
Sp. SOx	Kg/MWh	1.80	1.09	1.18
Sp. NOx	Kg/MWh	0.84	0.67	0.64

Air Emission Trend

KPI	Unit	FY 2026	FY 2025	FY 2024
Sp. PM	Tonnes	4,536.17	3,275.01	3,173.16
Sp. SOx	Tonnes	98,663.36	37,815.20	35,043.84
Sp. NOx	Tonnes	45,760.75	23,191.03	19,213.61

Driving Air Emissions Performance through Proven Technologies

JSW Energy adopts a structured, technology-led approach to manage air emissions across its thermal portfolio, aligned with evolving environmental standards. Advanced emission control systems, including upgraded Electrostatic Precipitators (ESPs) across thermal plants, significantly improve particulate matter capture efficiency, ensuring effective flue gas cleaning.

At Ratnagiri, Flue Gas Desulfurisation (FGD) systems enable substantial reduction in sulphur dioxide (SO₂) emissions, supporting compliance with regulatory norms. Additionally, the installation of low-NOx (Anti-NOx) burners at the Vijayanagar plant enhances control of nitrogen oxide (NOx) emissions, further strengthening air quality performance.

These interventions reinforce regulatory compliance while systematically reducing the environmental footprint of operations. Mercury and SF₆ emissions are not material to current processes and remain below detectable limits. JSW Energy continues to invest in best-available technologies to drive emission intensity reduction and support a cleaner, low-carbon energy transition.

Biodiversity

Conservation and Restoration

Our Strategy for Biodiversity Conservation

JSW Energy recognises biodiversity – the diversity of plants, animals, microorganisms, and the ecosystems they inhabit – as fundamental to maintaining ecological balance and supporting human well-being. In line with its sustainability commitments, biodiversity conservation is embedded within the Company's core operational approach.

The Company adopts a proactive strategy to minimise its environmental footprint by protecting natural habitats, restoring degraded ecosystems, and promoting the growth of native species across its power plants and project sites. Through comprehensive biodiversity risk assessments and targeted management initiatives, JSW Energy seeks to align economic development with ecological

preservation, contributing to broader global biodiversity goals.

At the Barmer plant, biodiversity conservation remains a key focus area. The Company has undertaken extensive ecological restoration initiatives, including continuous plantation drives to support local ecological balance. Over 88,704 native trees and shrubs have been planted, transforming barren land into green corridors that provide

habitats for birds, butterflies, and small mammals. In addition, wetland areas have been revitalised using treated wastewater, supporting groundwater recharge and creating nesting grounds for migratory birds. A notable initiative is the development of a Butterfly Garden, which serves as a vibrant, biodiverse space and a symbol of environmental restoration and community engagement.

At the Ratnagiri plant, key measures have been implemented in line with the Biodiversity Management Plan. These include the creation of a 3,500 m³ water reservoir to support the surrounding ecosystem, along with the application of additional soil cover in identified areas, further strengthening ecological stability around the plant.


Biodiversity Commitment (Vision & Mission)

The Group is committed to aligning industrial advancement with ecological preservation. A primary goal is to foster the growth of native species across all power plants and project sites through science-led management strategies.

- **No Net Loss (NNL):** JSW Energy has pledged to achieve a 'no net loss' of biodiversity at all operating sites by 2030.
- **Nurturing Biodiversity:** Bird Nesting & Feeding Initiative

Creating Safe Habitats within Renewable Energy Landscapes

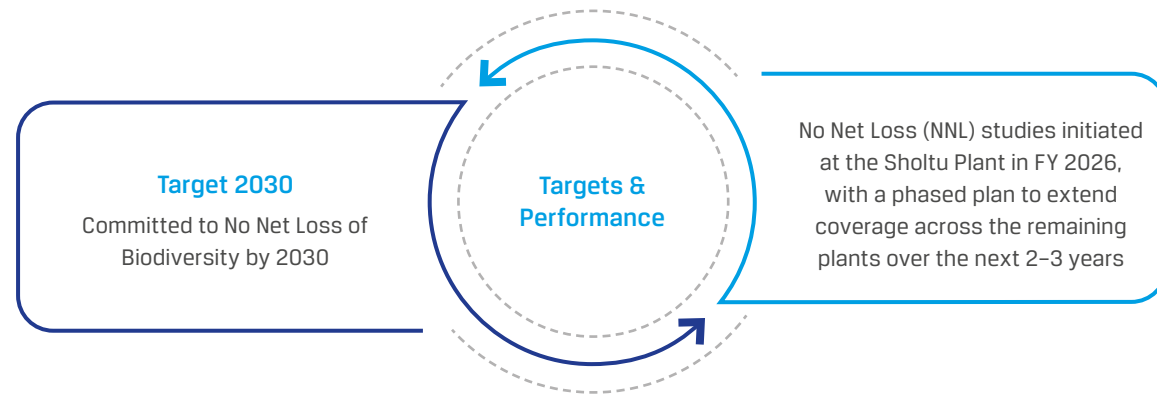
- As part of its commitment to environmental stewardship and biodiversity conservation, JSW Neo Energy Limited (JSWNEL) undertook a meaningful initiative to support local avian species through the installation of bird nests and feeders across its operational sites on the occasion of World Environment Week 2025.



Embedding biodiversity at the core of growth – driving nature-positive impact through restoration, native afforestation, and No Net Loss commitments while safeguarding ecosystems and enhancing resilience across operations.

Salient features

- Installation of durable, eco-friendly bird nests at strategic locations
- Placement of bird feeders and water trays to ensure sustained nourishment
- Involvement of site teams to ensure regular monitoring and upkeep
- Enhances avian habitat availability within operational landscapes
- Supports biodiversity conservation and ecosystem balance
- Helps birds cope with heat stress and water scarcity



Initiatives undertaken to conserve and protect biodiversity around operating sites

KPI	Unit	FY 2026	FY 2025	FY 2024
No. of saplings planted	Nos.	88,704	34,859	18,611
Other Initiatives (If any)		Miyawaki garden completed at our JSW Mahanadi Plant		

Biodiversity Risk Assessment and Mitigation Strategy

JSW Energy places strong emphasis on conserving biodiversity across its existing operations as well as upcoming projects. To support this commitment, the Company has undertaken biodiversity risk assessments across most of its operational locations and has set a target to achieve No Net Loss (NNL) of biodiversity by 2030 across these sites.

As part of its biodiversity initiative, the Company has adopted a structured, two-stage approach:

Stage I
Biodiversity Gap Assessment and Risk Mapping

Stage II
NNL Action Plan

Stage I: Biodiversity Gap Assessment and Risk Mapping.

The initial assessment involved a comprehensive desk-based review of site-level datasets, including biodiversity mapping indicators, Environmental Impact Assessment (EIA) reports, past biodiversity studies, and relevant secondary data sources. These inputs were analysed to develop an impacts and dependencies matrix.

Stage I: No Net Loss (NNL) Action Plan

The NNL Action Plan developed by JSW Energy encompasses the following key elements:

- Assessment of Biodiversity and Ecosystem Services (B&ES) risks and their implications for business operations
- A comprehensive guidance framework applicable at both Group and site levels, detailing potential impacts and dependencies across all project phases - planning, construction, operation, and decommissioning - along with corresponding mitigation measures outlined in the Biodiversity Action Plan

- Implementation of targeted action plans incorporating nature-based solutions to achieve the No Net Loss commitment
- Identification of priority action areas based on the mitigation hierarchy - avoidance, minimisation, restoration, and offsetting of B&ES impacts
- Development of a JSW Energy-specific monitoring indicator tool to track and evaluate progress across sites against the NNL targets

The biodiversity assessments have been conducted across key operational sites, including Ratnagiri, Jharsuguda, Barmer, and Vijayanagar Thermal Power Plants; Karcham Wangtoo and Baspa II Hydroelectric Plants; and

wind energy sites at Tuticorin, Dharapuram, and Sandur.

Building on these initiatives, all locations will progressively implement the NNL Action Plan in the coming years, with the objective of achieving the No Net Loss target by 2030.

Through this structured approach, JSW Energy aims to systematically manage biodiversity risks while strengthening its contribution to ecological conservation and long-term sustainability.

JSW Energy follows the IUCN Mitigation Hierarchy (Avoid, Minimise, Restore, Offset) to manage biodiversity impacts.

- **Assessment Progress:** Comprehensive biodiversity risk assessments have

been completed at the Barmer, Ratnagiri, and Vijayanagar plants.

- **FY 2025 Update:** A three-season study for Biodiversity Risk Assessment was completed at the JSW Energy Utkal Plant.

• Mitigation Plans:

1. 35,000 m³ water reservoir was created at the Ratnagiri plant to support the surrounding ecosystem and wildlife.
2. Soil conservation and topsoil management.
3. Development of mixed native plantation.
4. Management of invasive species.



Biodiversity Risk Assessment & Mitigation Strategy

Butterfly Garden – Promoting Biodiversity

JSW Energy Ratnagiri developed a Butterfly Garden within the plant premises to enhance biodiversity and create a natural habitat for pollinators. The initiative involved planting nectar-rich and host species, adopting chemical-free maintenance, and creating awareness through signage.

Impact

- Increased presence of butterflies and improved ecological balance
- Enhanced green cover and natural pollination
- Promoted environmental awareness and employee well-being

Biodiversity Risk Assessment

A biodiversity Risk assessment along with an evaluation of No Net Loss (NNL) of biodiversity

exercise has been initiated at the Hydropower plants, Karcham-Wangtoo and BASPA-II in Himachal Pradesh. The objective is to systematically assess potential biodiversity risks arising from operational activities and to strengthen conservation outcomes.

The assessment scope encompasses:

- Aquatic Biodiversity Assessment
- Terrestrial biodiversity Assessment (Flora & Fauna)
- Community Engagement
- Data Analysis & NNL Strategy

Given the region's challenging mountainous terrain, the study adopts a technology-driven methodology, including GIS and remote sensing tools (drones, specialised imaging systems), complemented by field observations and analysis of historical ecological data.

A competent third-party expert agency has been engaged to execute the assessment, supported by on-ground plant teams to ensure data accuracy and local context integration.

The NNL evaluation will also recognise and quantify the impact of afforestation and biodiversity enhancement

initiatives undertaken over the past decade, implemented in collaboration with local communities and authorities.

The Study will deliver :

- Baseline biodiversity assessment report
- Critical Habitat assessment
- Biodiversity management plan
- Biodiversity NNL evaluation and way forward report

The exercise is expected to be completed in Q1 of FY 2027.

Conclusion

This initiative reflects a strong commitment to biodiversity conservation, sustainability, and creating a green industrial ecosystem.

Way Forward

JSW Energy is currently finalising phased NNL (No Net Loss) Action Plans for RE Plant. In FY 2026, will cover RE fleets in phase-wise manner to achieve NNL for JSW Energy.

