Sustainable practices support ecological, human and economic health and vitality. It is the ability to exist and develop without depleting natural resources for the future.

At JSW Energy, we are transitioning into a renewable centric organisation by unleashing India's green energy potential. This ensures that the nation remains a crucial player to global clean energy transition, by placing sustainability imperatives at the centre of our key business strategies.

2

TOWARDS A SUSTAINABLE FUTURE

SUSTAINABILITY REVIEW SECTION

Solar Plant, Tamilnadu

JSW Energy stands at the forefront of sustainability, guided by a visionary approach that aligns its activities and strategies with global imperatives to mitigate climate change and transition towards a low-carbon economy. At the heart of its operations lie the three foundational pillars: Environmental Stewardship, Social Development, and Governance. These pillars serve as guiding principles, shaping the company's trajectory towards continuous improvement and heightened performance against major material issues.

With a comprehensive outlook, JSW Energy has meticulously identified 17 key focus areas across the Environmental, Social, and Governance (ESG) spectrum, intricately aligned with the 17 UN Sustainable Development Goals. These areas serve as focal points, reflecting the company's commitment to addressing critical sustainability challenges and fostering positive impact within its sphere of influence. Moreover, JSW Energy has implemented a robust framework of internal policies and procedures, designed to monitor and evaluate performance against these material issues rigorously. This internal mechanism ensures accountability and drives the organisation's pursuit of excellence in sustainability practices.

However, JSW Energy's commitment to sustainability transcends its internal operations. Recognising the interconnectedness of its value chain, the company has embarked on a journey to engage with its partners and suppliers, encouraging alignment with its sustainability agenda. By extending its focus beyond internal boundaries, JSW Energy aims to foster a culture of sustainability throughout its ecosystem, thereby mitigating risks and driving collective progress towards a more sustainable future.

Central to JSW Energy's sustainability agenda is its unwavering dedication to climate action. Aligned with 1.5° Scenario inline with the Paris Agreement, the company has set ambitious carbon neutrality targets to be achieved by 2050. This forward-thinking approach underscores JSW Energy's commitment to playing a proactive role in addressing one of the most pressing challenges of our time. Moreover, the company continuously monitors its performance against set Key Performance Indicators (KPIs), enabling a nuanced understanding of its progress in combating climate change and ensuring timely adaptation to evolving environmental dynamics.

In essence, JSW Energy's sustainability journey is characterised by a multifaceted approach that integrates environmental stewardship, social responsibility, and effective governance. Grounded in a clear vision and guided by global sustainability frameworks, the company is steadfast in its commitment to driving positive change and creating lasting value for all stakeholders. By embracing innovation, collaboration, and responsible leadership, JSW Energy is poised to continue its trajectory towards a more sustainable and resilient future.

Sustainability Strategy at JSW Energy

At JSW Energy, sustainability is ingrained in its culture through key elements that synergise to realise the company's vision. These elements form the foundation of a robust sustainability strategy, guiding JSW towards its environmental and social objectives. By fostering a culture where sustainability is paramount, JSW Energy ensures alignment with global goals while driving innovation and responsible practices.

Leadership	At JSW Energy, leadership demonstrates a fervent commitment to the sustainability agenda, consistently enhancing their understanding of ESG aspects pertinent to the business and industry. This proactive approach, cascading throughout the organisation, empowers JSW Energy to maintain a competitive edge in effectively implementing its sustainability strategy by aligning it to the Businesss strategy.
Stakeholder Engagement	Engaging meaningfully with stakeholders allows JSW Energy to grasp their expectations, which are then incorporated into the establishment of sustainability goals and targets. This collaborative approach ensures the creation of long-term value for all stakeholders, aligning the company's sustainability efforts with their needs and aspirations.
Communication	Digitalisation has revolutionised communication channels at JSW, facilitating efficient and timely interaction with stakeholders. This advancement ensures seamless coordination and information dissemination across all levels, from plant operations to group-wide initiatives, fostering enhanced coordination and transparency throughout the organisation.
Planning	JSW Energy's sustainability strategy meticulously identifies material issues, enabling timely risk mitigation and capitalisation on opportunities for greater value creation. This proactive approach ensures that the organisation remains agile in navigating challenges while maximising its potential for sustainable growth and positive impact.
Improvement	JSW Energy is committed to continually identifying opportunities for performance enhancement, particularly concerning Environmental, Social, and Governance (ESG) factors aligned with its sustainability pillars. Through proactive efforts, the company seeks to drive progress and innovation across these critical areas, ensuring alignment with its overarching sustainability objectives.
Monitoring	The organisation maintains ongoing engagement with both plant-level teams and the corporate team to assess progress against key performance indicators (KPIs) on a monthly basis. This approach ensures that timely feedback is provided, enabling swift intervention on matters requiring attention or improvement. Through regular monitoring and collaboration, the organisation remains agile in addressing challenges and optimising performance across all levels of operations.
Reporting	The organisation transparently discloses its performance to stakeholders through the Global Reporting Initiative (GRI), ensuring accountability and fostering trust. By adhering to internationally recognised reporting standards, such as GRI, the organisation provides stakeholders with comprehensive insights into its sustainability efforts, achievements, and areas for improvement.

ESG Governance Structure at JSW Energy

An effective ESG (Environmental, Social, and Governance) governance structure is crucial for businesses to thrive in today's complex landscape. It ensures alignment of corporate strategies with sustainability objectives, fostering long-term value creation. By integrating ESG considerations into decision-making processes, the Company strives to mitigate risks, harness opportunities, and build resilience against emerging challenges. ESG governance promotes transparency, accountability, and trust among stakeholders, enhancing reputation and investor confidence. Ultimately, it enables JSW Energy to contribute positively to society, protect the environment, and maintain robust governance practices, driving sustainable growth and prosperity for all.

JSW Energy, Strategy Meeting

Alignment of Sustainability Pillars to UNSDGs

Pillars of Sustainability	Key Focus Areas	Alignment to SDGs
Environmental Stewardship	Climate Change	13 CLIMATE ACTION
	Energy	7 AFFORDABLE AND CLEAN ENERGY
	Resources	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Water Resources	6 CLEAN WATER AND SANITATION
	Waste	11 SUSTAINABLE CITIES AND COMMUNITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Wastewater	6 CLEAN WATER AND SANITATION; 11 SUSTAINABLE CITIES AND COMMUNITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Air Emissions	13 CLIMATE ACTION
	Biodiversity	15 LIFE ON LAND
	Local Consideration	11 SUSTAINABLE CITIES AND COMMUNITIES
Social Development	Health and Safety	15 LIFE ON LAND; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Indigenous People	11 SUSTAINABLE CITIES AND COMMUNITIES
	Cultural Heritage	11 SUSTAINABLE CITIES AND COMMUNITIES
	Social Sustainability	10 REDUCED INEQUALITIES; 17 PARTNERSHIPS FOR THE GOALS
	Supply Chain Sustainability	11 SUSTAINABLE CITIES AND COMMUNITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Employee Well-being	5 GENDER EQUALITY; 8 DECENT WORK AND ECONOMIC GROWTH; 10 REDUCED INEQUALITIES
Governance	Human Rights	5 GENDER EQUALITY; 10 REDUCED INEQUALITIES; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	Business Ethics	16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Power Plant, Barmer

Key Focus Areas

Key Focus Areas for FY 2024	Initiatives
Climate Resilient Business – Global Net Zero Agenda	TCFD Risk Assessment – Phase 1 completed wherein the desk assessment for the Physical and Transition risk identification was done for all JSW Energy plant & project locations
Responsible Supply Chain Management	Digital Supply Chain Module is implemented to assess ESG performance of Tier 1 suppliers
Biodiversity	Baseline assessment completed wherein the desktop risk assessment for biodiversity loss at various plant locations was done and identified as Low, Medium and High Risk as applicable. Under Phase – 2, one seasons Biodiversity Assessment was completed at our Ratnagiri plant which was identified as medium risk. Similar phase – 2 study shall be completed in another high or medium risk plant in FY 2025.
Human Rights	Human Right Due Diligences was completed at two major plant locations i.e. Vijayanagar and Hydro-Sholtu. The Assessment report is under discussion and finalisation. Further, Human Rights Assessments shall be completed for 2 major plants in FY 2025
Digitalisation	Sofi – Digitalised Sustainability dashboard has now been implemented. All plant locations now update their monthly sustainability data on the digitised application leading to easy report generations and analysis.

AWARDS & ACCOLADES

Environmental Performance

Corporate Office

CAP 2 (Climate Action Program) - 'RESILIENT' (1st Place) Award by CII for Climate Change

Climate Disclosure Programme (CDP) (Global Rating) - Received "A-" (leadership band) for Climate Change

Climate Disclosure Programme (CDP) (Global Rating) - Received "B" (Management Band) for Water Security

Vijayanagar Plant

Mission Energy - Water Conservation Award (Winner)

Green Maple Foundation - Green Feather Environment Award - Diamond Category

Council of Enviro Excellence - Energy Efficiency - Winner 'Operational Excellence' of the power plant

Exceed Energy Efficiency - Platinum Award

Exceed Water Conservation - Gold Award

CII - Energy Efficient Unit Award

Society of Energy Engineers & Managers (SEEM)- Energy Efficiency Platinum Award

Council of Enviro Excellence - Best Energy Efficient Award

IPPAI - Winner - Innovation Category - "Digital Monitoring of Auxiliary Consumption and Heat Rate."

Barmer Plant

CII-ITC award for "Excellence in Biodiversity"

"Platinum Award 2022 in Environment Management" Organised by Grow Care India

"Water Optimisation Award 2023 in Best Zero Liquid Discharge Plant" Organised by Mission Energy Foundation

"2nd CEE Environment Excellence Award 2023" Organised by the Council of Enviro Excellence

"The Gold Award during 14th Exceed Green Future Environment Award in the Sustainability Category" Organised by Sustainable Development Foundation

"National Award for Excellence in Energy Management 2023" organized by the Confederation of Indian Institute (CII)

"Horticulture Development Award" Organised by the Green Maple Foundation

"The CEE 3rd National Energy Efficiency Award 2023" Organised by the Council of Enviro Excellence

Ratnagiri Plant

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

Social Performance

Vijayanagar Plant

British Safety Council - 'Five Star Rating' for Excellence in Occupational Health & Safety

Green Maple Foundation - 'Wellness at Work' - Diamond Award

British Safety Council - 'Sword of Honor' Award for Excellence in Safety received by the Head of Plant in a glittering function at Drapers Hall, London

EXCEED Safety Awards - GOLD Award for 'Excellence in Safety'

Barmer Plant

"State Safety Award-2023" for high standards of competence and compliance of OHS by Factories & Boilers Inspection, Rajasthan Government

Certificate of Appreciation for good practices in safety systems in 10th FICCI Award for Excellence in Safety System organised by the Federation of Indian Chambers of Commerce and Industry (FICCI)

"Platinum Award" in the Power generation sector for outstanding achievement in Occupational Health and Safety Organised by the Sustainability Development Foundation

Ratnagiri Plant

"International Safety Award - Merit Category" by British Safety Council (BSC)

10th FICCI Award in Excellence in Safety System

Sholtu Plant

Wins Grow Care India Occupational Health & Safety Platinum Award 2023

EKDKN - Platinum award for Excellence in Occupation Health & Safety by Sustainable Development Foundation

Governance Performance

Corporate Office

DJSI (Dow Jones Sustainability Index) Rating - 72/100 for ESG Performance under Corporate Sustainability Assessment (CSA)

Vijayanagar Plant

(CII) DX Digital Transformation Award for 'Best Practice in Digital Transformation'

ISO Convention - 1st Prize in TOPS Convention by Indian Society for Quality

TQM (Total Quality Management) - 5 Gold and 1 Platinum in TQM Summit and qualified for ICQC

Barmer Plant

"Gold Award 2022 in Sustainability" Organised by Grow Care India

Ratnagiri Plant

'Par Excellence' awards at the 9th National Conclave on 5S

Gold at CCQC 2023, Pune chapter

Four Gold and one Silver award in ICQCC, China chapter

STAKEHOLDER ENGAGEMENT

JSW Energy believes in understanding what matters most to its stakeholders, connecting these concerns with key areas of focus. Through regular communication and involvement, including with marginalised groups affected by its activities, the company ensures their voices are heard and needs are addressed. This inclusive approach helps mitigate risks to the business and fosters a sense of shared responsibility.

Stakeholder Group	Customers	Employees & Workers	Shareholders & Investors
Key Material Concerns	• Customer Relationship Management • Opportunities in Renewable Energy	• Occupational Health and Safety • Human Rights • Labour Management • Employee Welfare • Labour Relations	• Innovation and Digitalisation • Corporate Governance and Ethics • Economic Performance • Cyber Security • Business Model Resilience • Risk Management • Responsible Investment • Opportunities in Renewable Energy • Climate Strategy
Mode of Engagement	Customer meets, Advertisements, publications, website and social media, Conferences events, Phone calls, emails and meetings	JSW World – Intranet portal, Newsletters, Employee satisfaction surveys – JSW Voice Pulse Survey, Emails and meetings, Trainings, Employee engagement initiatives like WeCare and Samvedna, Wellbeing Survey, Safety Perception Survey, Performance appraisal, Grievance redressal mechanisms, Notice boards, Human Rights Training and surveys	Analyst meets and conference calls, Annual General Meeting, Advertisements, publications, website and social media, Investor meetings and roadshows
Frequency of Engagement	Regular and Need-based	Regular and Need-based	Regular and Need-based

Moreover, it provides a platform for stakeholders to express their views and concerns, fostering mutual understanding and collaboration. By working together, JSW Energy and its stakeholders can find common ground and solutions that benefit everyone involved. This commitment to open dialogue and engagement builds trust, enhances transparency, and drives progress towards sustainable outcomes for all.

	 **Government and Regulators**	 **Value Chain Partners (Suppliers and Vendors)**	 **Society, Communities and NGOs**	 **Others (R&D Institutions and Industry Bodies)**
	• Socio-economic Compliance • Environmental Compliance • Water and Effluents • Biodiversity • Emissions • Waste	• Supply Chain Management • Materials • ESG	• Human Rights • Community Relations	• Life Cycle Management • Climate Strategy • Innovation
	Advertisements, publications, website and social media, Phone calls, emails and meetings, Regulatory audits/ inspections	Vendor assessment and review, Training workshops and seminars, Supplier audits, Advertisements, publications, website and social media.	Need assessment, Meetings and briefings, Partnerships in community development projects, Training and workshops, Impact assessment surveys, Advertisements, publications, website and social media, Complaints and grievance mechanism	Collaboration with R&D Institutions and various industry bodies
	Regular and Need-based	Regular and Need-based	Regular and Need-based	Need-based

MATERIAL MATTERS

At JSW Energy Limited, the importance of comprehending our societal and environmental impacts, along with the associated risks and opportunities concerning environmental, social and governance (ESG) matters, is deeply acknowledged for the sustained success and expansion of the enterprise. The perspectives of stakeholders regarding these ESG issues, along with their expectations, are duly considered. A firm determination exists to address and report on the most significant sustainability concerns. This commitment is facilitated by a thorough sustainability materiality assessment, conducted periodically.

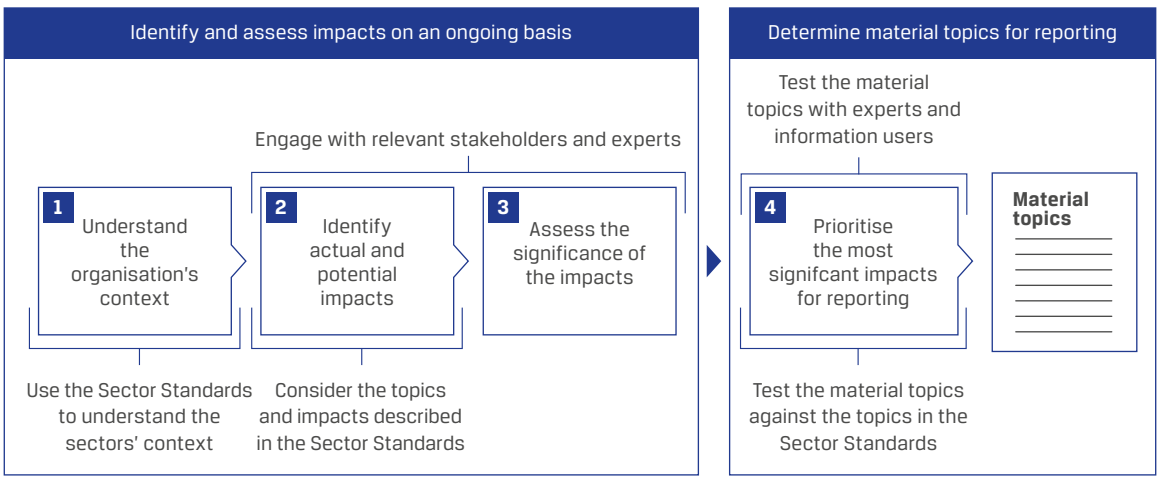
In the fiscal year 2023-24, a comprehensive double materiality assessment was undertaken, integrating both impact and financial materiality evaluations. The impact materiality assessment, adopting an inside-out approach, adhered to the GRI Universal standards of 2021. Meanwhile, the financial materiality assessment, adopting an outside-in approach, adhered to the International Financial Reporting Standards (IFRS) and Sustainability Accounting Standards Board (SASB) standards.

This dual assessment framework underscores the recognition that JSW Energy can both influence and be influenced by ESG matters. Guided by the Corporate Sustainability Reporting Directive (CSRD) and European Financial Reporting Advisory Group (EFRAG) guidelines, the assessment comprises two key processes: stakeholder engagement and impact assessment.

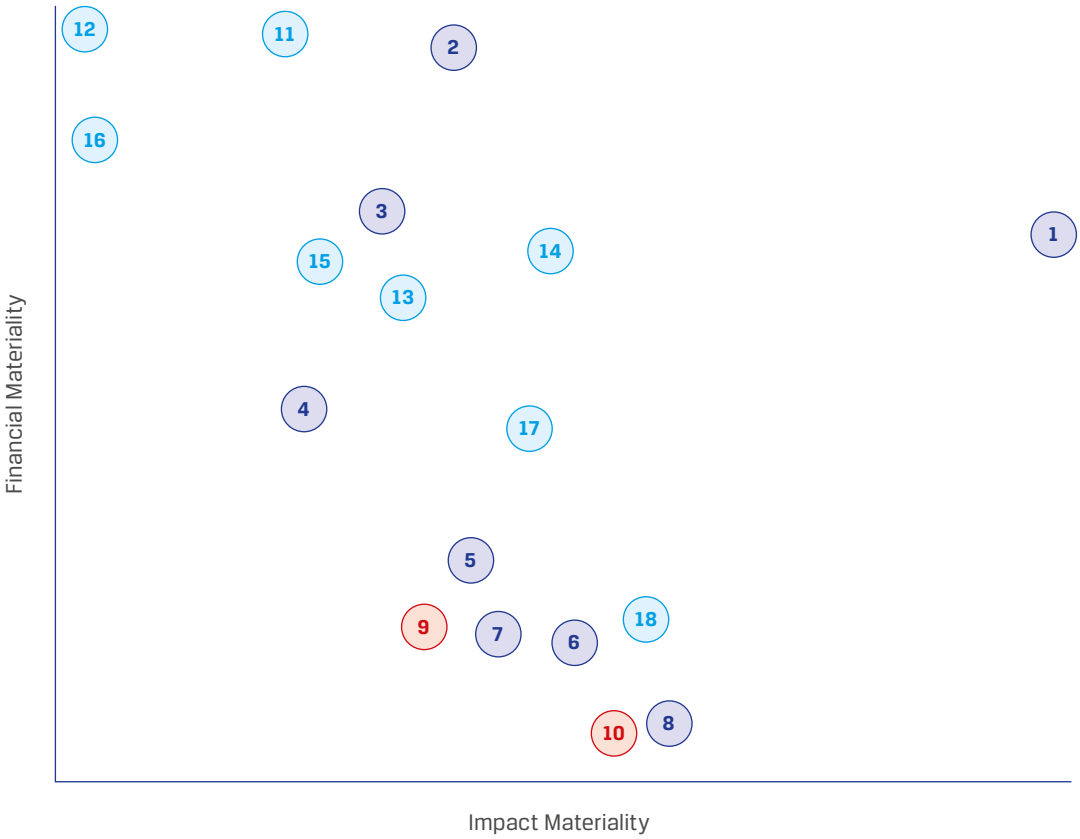
Through stakeholder engagement exercises, the perceptions and expectations of both internal and external stakeholders regarding ESG matters are captured. Responses collected across various parameters such as scale, scope, and likelihood of impact serve as valuable inputs for the impact assessment.

Positive and negative impact scores are computed for each ESG topic within both the impact materiality and financial materiality assessments. This comprehensive evaluation yields a final list of material topics that are pertinent to both JSW Energy and its stakeholders, reflecting the company's impact on sustainable development throughout its value chain. These material topics, encompassing 8 environmental, 2 social, and 8 governance themes, form the cornerstone of JSW Energy's sustainability reporting efforts for the year.

Approach



Following is the Double Materiality Assessment with Impact materiality and Financial Materiality. Topics with Materiality percentile score higher than the qualifying percentile were considered as Material topics and are provided in the graph and the list below.



Environment	Topic No.
Climate Strategy	1
Greenhouse Gas Emissions & Energy Resource Planning	2
Resource Use and Management	3
Life Cycle Management of Assets	4
Air Quality	5
Waste Management	6
Water and Effluent Management	7
Impact on Biodiversity	8

Governance	Topic No.
Economic Performance	11
Business Model Resilience	12
Technology, Product and Process Innovation	13
Responsible Investment	14
Opportunities in Renewable Energy	15
Digitalisation and Automation	16
ESG-based Enterprise Risk Management	17
End-Use Efficiency & Demand	18

Social	Topic No.
Labour Relations	9
Occupational Health and Safety	10

PLANET POSITIVE

JSW Energy places paramount importance on addressing climate change, recognising its significance in safeguarding business interests and communities' resilience. The company's climate philosophy permeates every facet of its operations, drawing keen attention from stakeholders who understand the urgency of action. As a key contributor to the economy and society, JSW Energy assumes responsibility and pledges to act decisively. Embracing partnerships and individual efforts, the company commits to preserving the delicate balance of ecosystems. Through collaborative initiatives and sustainable practices, JSW Energy strives to champion climate resilience and contribute to a greener, more sustainable future. With a steadfast commitment to environmental stewardship, JSW Energy stands as a beacon of responsible corporate citizenship, leading the charge towards a climate-resilient world.

At the forefront of environmental stewardship, JSW Energy diligently tackles global ecological challenges. Through robust monitoring and management systems, it addresses pivotal issues such as climate change, water conservation, emissions reduction, waste management, and biodiversity preservation. These efforts are guided by key performance indicators (KPIs), facilitating ongoing evaluation and strategic refinement to achieve long-term targets. As a key player in the global energy landscape, JSW Energy sets the bar high with its commitment to substantial carbon reduction initiatives spanning its entire operational spectrum. Embracing a proactive stance, the Company identifies and mitigates climate risks, aiming to fortify business assets and foster resilient communities. With a bold pledge to attain Net-Zero status by 2050, JSW Energy champions transformative initiatives like Paris Agreement 2015, the Global Framework for Decarbonising Heavy Industries, and the UN Energy Compact. By aligning with global standards and frameworks, including the UN Global Compact, the organisation enhances its sustainability footprint, fostering continuous growth and progress towards a greener future. In FY 2024, as per the annual sustainability plan, the company has completed its TCFD phase – 1 assessments, Biodiversity assessments, Human Rights Due diligence of targeted plant locations and Digital monitoring enhancement of Sustainability KPI & other parameters. A focussed Sustainability plan for FY 2025 has also been prepared & budgeted which will effectively be carried out. Through comprehensive Climate Risk Assessments and Biodiversity Risk studies, JSW Energy ensures a holistic approach to environmental stewardship, earning recognition for its unwavering commitment to combating climate change.

Power Plant, Ratnagiri

CDP Performance

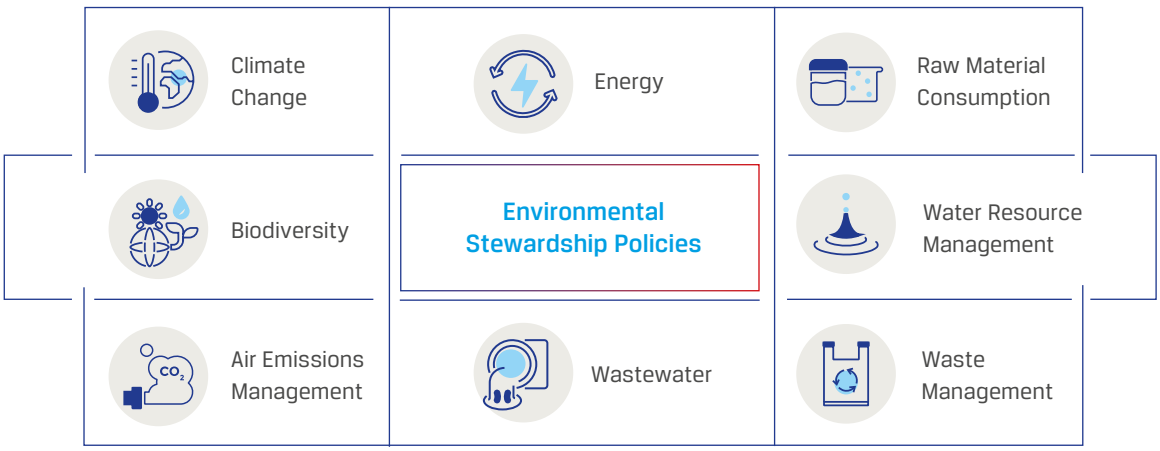
The company's strong commitment to the environment shines through its recent achievement of an 'A-' leadership band rating in the CDP Climate Change Disclosures. As the only energy company in India to receive such recognition, this highlights its dedication to fighting climate change on a global scale. Additionally, in its first submission, the company earned a respectable 'B' rating for Water Security, marking a promising start in this area. These accomplishments reflect the company's proactive approach to sustainability and inspire continued efforts towards environmental conservation.

Key Business Prerogatives

- Rapid and enduring expansion towards sustainability
- Establish a forward thinking company that leverages advanced technology and innovation
- Strengthening ESG practices and generating appealing returns

Environmental Stewardship Policies

JSW Energy is committed to environmental stewardship, integrating sustainable practices into every aspect of its operations. With a focus on reducing carbon emissions, conserving water, and minimising waste, the Company implements robust policies to mitigate its environmental impact. By investing in renewable energy sources, adopting eco-friendly technologies, and adhering to stringent regulatory standards, JSW Energy strives to preserve natural resources and promote ecological sustainability. Through ongoing monitoring, assessment, and improvement initiatives, the Company aims to continuously enhance its environmental performance and contribute positively to the planet's well-being.



Performance Against Targets

		Actuals			Target	Status
Env Parameter	**KPI**	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2030**	
Climate Change	GHG Emissions (Scope 1+2) - tCO_2e/MWh	0.68	0.685	0.62	0.215	▲ Under Progress
Water Security	Sp. Freshwater consumption (m_3 /MWh)	1.11	1.116	0.95	0.591	▲ Under Progress
Waste	Waste - Ash Utilisation (%)	96.90%	100%	100%	100%	● Achieved
Air Emissions	Sp. PM (Kg/MWh)	0.14	0.12	0.106	0.053	▲ Under Progress
	Sp. SOx (Kg / MWh)	1.52	1.24	1.18	0.683	▲ Under Progress
	Sp. NOx (Kg/MWh)	0.81	0.7	0.64	0.373	▲ Under Progress
Biodiversity	Biodiversity at our Operating sites	Biodiversity Eco-systems study initiated at Barmer plant	Biodiversity Eco-systems study in progress at 5 plant/ project locations. Completed at Barmer.	Implementation of Biodiversity Management plan at Barmer Plant and one season Biodiversity study completed at Ratnagiri Plant	Achieve No-Net loss of Bio-diversity	▲ Under Progress

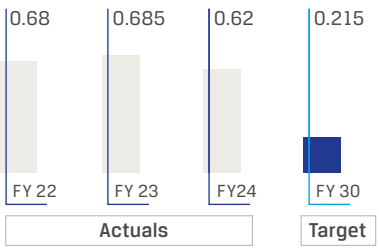
▲ Under Progress ● Achieved

Graphical Representation of the Key Performance Indicators

Climate Change

GHG Emissions (Scope 1 + 2)

tCO_2e/MWh



Climate Change GHG Emissions

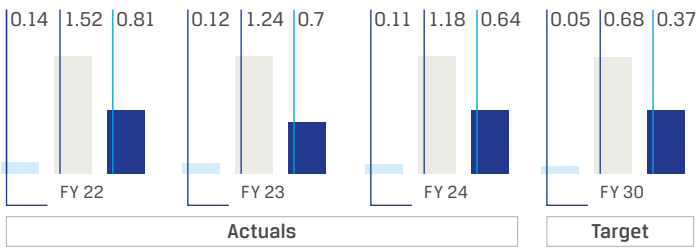
Climate Change (Scope 1+2) – tCO_2e/MWh

FY30 Target = 0.215 is aligned with SBTi

Air Emissions

PM, SOx, NOx

(%)



Air Emissions PM (Kg/MWh)

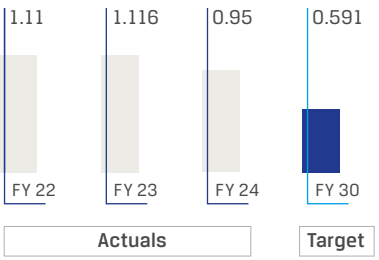
Air Emissions SOx (Kg/Mwh)

Air Emissions NOx (Kg/Mwh)

Water Security

Sp. Freshwater consumption

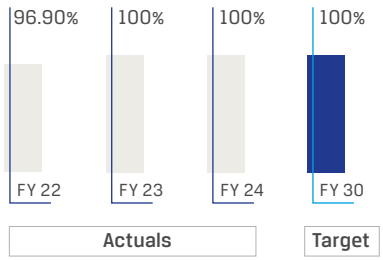
(m^3/MWh)



Waste (Non-hazardous)

Ash Utilisation

(%)



Climate Change

Climate Strategy – Striving for Deeper Decarbonisation

Key Highlights

- Increased share of RE for decarbonisation - Total RE operational capacity increases from 3,406 MW (Q4 FY 2023) to 3,737 MW (Q4 FY 2024)
- TCFD – Identified associated short-term, medium-term and long-term risks
- Overall 25.7% GHG emissions target achieved wrt 2030 target

Strategic Approach

JSW Energy is dedicated to making sustainable development a reality through its innovative initiatives and practices. As a major player in the energy sector, the Company understands its crucial role in moving towards a low-carbon economy and supporting India's Net-Zero goals. To achieve this, JSW Energy focusses on building robust infrastructure and integrating plans to reduce greenhouse gas emissions and adapt to climate change impacts.

One key aspect of JSW Energy's strategy is to diversify its energy resources by exploring and investing in renewable energy sources like wind and solar power. By expanding its renewable energy portfolio, JSW Energy aims to increase its operational capacity to 20 gigawatts (GW) by the fiscal year 2030. This ambitious goal positions the company as a leader in renewable energy technologies and contributes significantly to India's clean energy transition.

Recognising the urgent need to address climate change, JSW Energy conducts detailed studies to understand the potential risks and impacts on its business operations. These studies help the company identify vulnerabilities and develop strategic plans to ensure resilience under various climate scenarios. By proactively managing climate-related risks, JSW Energy aims to safeguard its business continuity and long-term sustainability.

At the governance level, JSW Energy takes climate change seriously. The company's Board of Directors oversees all climate-related issues, ensuring that climate considerations are integrated into decision-making processes. Additionally, a dedicated Sustainability Committee coordinates actions at the plant level to implement effective management plans. This collaborative approach ensures that climate change mitigation and adaptation measures are prioritised across the organisation.

JSW Energy has already made significant progress in reducing its carbon emissions. Compared to the baseline year of 2020, the company has achieved a commendable 25.7% of the total emission reduction target of 2030. This achievement demonstrates JSW Energy's commitment to combating climate change and reducing its environmental footprint.

Control Room, Solar Plant, Telangana

Target:
Reduce Our Carbon Emissions by More Than 50% (Baseline 2020) By 2030

SDGs Impacted

GHG Emissions

JSW Energy is committed to managing its greenhouse gas (GHG) emissions effectively. Through rigorous monitoring and mitigation efforts, the company strives to minimise its carbon footprint across all operations. Adopting innovative technologies and best practices, JSW Energy aims to reduce GHG emissions while ensuring operational efficiency and sustainability. By setting ambitious targets and implementing comprehensive strategies, the company demonstrates its dedication to combating climate change and transitioning towards a low-carbon future.

Solar Plant, Telangana

GHG Emissions Intensity (tCO_2/MWh)

0.68	0.68	0.685	0.62
FY 2021	FY 2022	FY 2023	FY 2024

Scope 1 (tCO_2e)*	Scope 2 (tCO_2e)*	Scope 3 (tCO_2e)*
1,85,24,364 FY 2024	36,578 FY 2024	17,88,822 FY 2024
1,60,62,496 FY 2023	26,293 FY 2023	16,34,697 FY 2023
1,50,86,661 FY 2022	33,292 FY 2022	12,19,298 FY 2022

* Rounded off to nearest integer

Categories considered under Scope 3 Emissions (tCO_2e)

Scope 3 - Category Details*		Total
Categories		
1.	Purchased goods and services	12,895.32
2.	Capital goods	2,931.96
3.	Fuel and energy	17,64,989.39
4.	Upstream transportation and distribution	257.53
5.	Waste generated in operations	6,932.02
6.	Business travel	617.71
7.	Employee commuting	197.72
Total		17,88,821.65

* Category 8 - 15 are not applicable to the business.

Energy Conservation Initiatives

Energy conservation is crucial for JSW Energy as it enhances operational efficiency and reduces greenhouse gas emissions, aligning with global sustainability goals. By conserving energy, we strive to lower operating costs and optimise resource use. It also supports regulatory compliance and strengthens the Company's reputation as a responsible energy provider.

Total Energy Saved through Conservation Initiatives

Location of Plant	Energy Reductions in GJ	GHG Emissions saved in $MTCO_2e$
Barmer	79,126.19	7,313.45
Ratnagiri	4,62,626.00	37,200.00
Vijayanagar	20,067.54	34,586.84
Nandyal	2,360.26	1,697.03

Total GHG emissions saved for all Plants = 80,797.32 $MTCO_2e$

The GHG emissions intensity only for thermal power plants is 0.915 tco_2e / MWh. (scope 1 + scope 2)

For detailed information about the energy savings initiatives undertaken across the plants, please refer to Natural Capital page number 148-149.

TCFD ALIGNMENT

We, at JSW Energy, are dedicated to confronting the challenges and opportunities posed by climate change head-on. Acknowledging the profound implications climate-related factors can have on our business and financial outcomes, we are committed to embracing the TCFD framework. This framework, encompassing governance, strategy, risk management, and metrics/ targets, provides a structured approach for evaluating and divulging climate-related risks and opportunities in a consistent and comparable manner.

Power Plant, Barmer

By adhering to the TCFD guidelines, we aim to gain a deeper understanding of our climate-related impacts and enhance transparency and accountability to our investors and stakeholders. Through rigorous assessments and disclosures aligned with TCFD recommendations, we aspire to communicate our climate-related risks and opportunities effectively.

As we go by this journey to align with TCFD principles, we are conducting comprehensive studies to reassess our risks and opportunities associated with climate change. These efforts reflect our unwavering commitment to responsible environmental stewardship and sustainable business practices.

Governance

Board Oversight

To ensure momentum and accountability, we've established board-level committees* dedicated to assessing and managing climate-related risks. Our sustainability achievements and initiatives undergo thorough review and discussion at the bi-annual gatherings of the Board Level Sustainability Committee. This collaborative approach facilitates the seamless institutionalisation of climate strategies throughout the organisation.

* Read more → Pg 236

Management Oversight

At the management level, the Executive Committee (JMD & CEO, CFO, COO, Section Heads and Special Invitees) and corporate functions teams play pivotal roles in overseeing climate-related matters:

Executive Committee: Monthly meetings include discussions on climate change and sustainability KPIs, ensuring a comprehensive review of the company's performance.

Corporate Functions Teams: The corporate risk, sustainability, and strategy teams collaborate closely to support the Executive Committee in addressing climate-related challenges. The team maintains regular communication with each site on a monthly basis and engage with cross-functional teams as necessary.

In our strategic approach, we prioritise assessing the potential transition and physical risks associated with climate change to ensure the resilience of our operations. This encompasses evaluating challenges like extreme weather events and fluctuations in water availability.

BY ADHERING TO THE TCFD GUIDELINES, WE AIM TO GAIN A DEEPER UNDERSTANDING OF OUR CLIMATE-RELATED IMPACTS AND ENHANCE TRANSPARENCY AND ACCOUNTABILITY TO OUR INVESTORS AND STAKEHOLDERS.

To achieve this, we rely on internationally recognised scenarios from two primary sources:

The Intergovernmental Panel on Climate Change (IPCC)	Provides pathways for assessing the physical impacts of climate change, considering varying concentrations of greenhouse gas emissions in the atmosphere.
The International Energy Agency (IEA)	Models the implications of climate-related policies and technologies on energy systems globally.

For evaluating location-specific physical risks, we utilise the IPCC Representative Concentration Pathways (RCP) 8.5 and 4.5. Additionally, we leverage the IEA World Energy Outlook (WEO) 2020, specifically the Stated Policies Scenarios (STEPS) and Sustainable Development Scenario (SDS), to assess transition risks. This comprehensive approach enables us to effectively identify and address climate-related risks across our operations, ensuring our continued success and resilience.

Physical and Transition Climate Change Scenarios

1. Business-as-Usual Scenario

- **IPCC Scenarios (Physical Risks)**

  RCP 8.5 Scenario:

  This scenario represents an extremely high emissions trajectory, where global mean temperature is projected to increase by approximately 3.7°C (with a range of 2.6°C - 4.9°C) by the end of the century (2100). It assumes heavy reliance on fossil fuels with minimal policy-driven mitigation efforts.

- **WEO-2020 Scenarios (Transition Risks)**

  Stated Policies Scenario:
  This scenario integrates existing and announced climate policies up to mid-2022, including Nationally Determined Contributions from governments worldwide. It serves as a baseline against which additional actions are necessary to achieve Sustainable Development Scenario (SDS) climate objectives.

2. Optimistic Scenario

- **IPCC Scenarios (Physical Risks)**

  RCP 4.5 Scenario:

  Representing an intermediate emissions trajectory, this scenario forecasts a global mean temperature increase of approximately 1.8°C (with a range of 1.1°C - 2.6°C) by the end of the century (2100). It anticipates greater adoption of renewable energy and robust policy-driven mitigation measures.

- **WEO-2020 Scenarios (Transition Risks)**

  Sustainable Development Scenario:
  This scenario outlines an energy sector pathway aligned with achieving global net-zero CO_2 emissions from the energy system by around 2070, alongside universal energy access and reduced air pollution.

These climate scenarios serve as crucial decision-making tools, allowing us to assess potential climate risks while making informed business decisions. To identify and evaluate climate-related physical risks effectively, we will develop location-specific climate profiles for each asset, analysing climate change impacts across all regions of our operations. Assessment of these risks will be based on two key parameters: the probability of occurrence, which indicates the likelihood of a given risk due to projected changes in regional climatic parameters, and the expected impact, representing the extent of impact JSW Energy is likely to experience from each identified risk, considering our climate resilience at the plant/facility level.

Transformer Yard, Barmer

Risks	Description
Physical risks Physical risks resulting from climate change can be event driven (acute) or longer-term shifts (chronic) in climate patterns.	**Chronic:** Water scarcity is resulting in notable operational challenges for our plants situated in regions experiencing high water stress. Additionally, extreme heatwaves, triggered by temperature fluctuations, are causing disruptions to our operations.
	Acute: Intense rainfall and cyclones are triggering flooding, potentially leading to operational shutdowns or service disruptions. These events create instability in raw material procurement.
	Mitigation Strategy: • **Diversification across India:** We are expanding our operations widely in renewable energy (RE) sectors, which do not require raw materials during operational phases. • **Zero liquid discharge plants:** All our plants adhere to zero liquid discharge standards, ensuring responsible water management. • **Reduction of fresh water consumption:** We are committed to reducing specific fresh water consumption in the coming years. • **Water conservation efforts:** We are evaluating methods to enhance water conservation, including the construction of additional storage facilities to mitigate the impact of water scarcity on operations. • **Resilience enhancement:** These measures aim to increase the resilience of our operations against water-related risks. • **Weather pattern monitoring:** We are implementing systems to monitor weather patterns, particularly rainfall, to assess the likelihood of risks in the near future.
Transition risks Transitioning to a lower-carbon economy may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change.	**Policy:** The implementation of stricter environmental regulations, including initiatives like the Perform, Achieve, and Trade (PAT) mechanism, Carbon tax imposition, and heightened Coal Cess, may collectively elevate production costs and reduce profit margins.
	Market: Consumer preferences are shifting towards renewable energy, driven by a growing demand to replace thermal energy sources. This transition poses risks linked to the fluctuating prices and quality of coal.
	Technology: The financial feasibility of capital-intensive low-carbon technologies poses challenges, as does the adoption of these innovative solutions.
	Reputation: The adverse effects of our business decisions on our social licence to operate are closely linked to our contributions to the well-being of the broader community and environment. These impacts can influence our reputation with both investors and society as a whole.
	Mitigation Strategy: • **Substitution of coal-based boilers:** Transitioning from coal-based boilers to utilising waste gases from our Group company, JSW Steel, at one of our locations. • **Reduction of fossil fuel dependency:** This substitution eliminates the need for fossil fuels, mitigating policy and market risks associated with their use. • **Carbon pricing mechanism:** Our Internal Carbon Price (ICP) of 12 USD/tCO_2e allows for a balanced assessment of the feasibility of proposed low-carbon initiatives in the near and medium term. • **Sustaining competitiveness:** Ensuring our low-carbon journey continues while maintaining our competitive edge in the market.
Opportunities	• **Expanding renewable energy (RE) presence:** Capitalising on the rising demand for renewable energy alongside India's commitment to achieving 500 GW of fossil-free energy by 2030. We are striving to achieve 20 GW capacity before 2030 from the current 7.2 GW with incremental capacity coming mainly from renewable sources. • **Policy and regulatory support:** Leveraging the increasing policy and regulatory support for low-carbon growth to advance our expansion plans, aiming for 20 GW capacity by 2030. • **Net-Zero commitment:** Committed to becoming a Net-Zero company by 2050 or earlier. • **Investment in ultra-low carbon technologies:** Exploring ultra-low carbon technologies such as green hydrogen and carbon circularity to facilitate the decarbonisation. • **Continuous monitoring:** Actively monitoring the landscape to seize opportunities as they arise, ensuring that we remain at the forefront of sustainable energy initiatives.

Risk Management Framework*

We employ a comprehensive climate change risk assessment framework, structured to identify and assess risks at two distinct levels:

*Read more → Pg 106

Asset/Plant Level

- Identification and assessment of climate-related physical risks are conducted at the asset/plant level
- Risks are categorised into high, medium, and low levels using a 3X3 risk matrix based on the probability of occurrence and the expected impact of risks

Corporate Level

- Identification and assessment of climate-related transition risks and opportunities arising from changes in climate policies, market landscape, and operating environment are conducted at the corporate level
- Transition risks are classified into high, medium, and low levels based on their potential impact on our operations

Risk Management Process

Key risks and opportunities identified at both asset/plant and corporate levels undergo regular review, monitoring, and evaluation to develop effective risk mitigation strategies. Strategy formulation to address and manage identified climate-related risks and opportunities occurs at both corporate and asset/plant levels, ensuring a proactive approach to risk management and adaptation.

Metrics and Targets

We have implemented key performance indicators (KPIs) and targets to gauge our effectiveness in managing climate-related risks and opportunities. These encompass metrics concerning greenhouse gas emissions, energy usage, and the expansion of renewable energy capacity. We consistently monitor and report on these metrics, ensuring transparency and accountability to our stakeholders regarding our performance.

Way Forward

The TCFD phase – 1 risk assessments for all plants has been completed. Under the next phase, we are doing a deep dive physical risk assessments at all our Hydropower plants in FY 2025 which will include our under construction power plant as well. Already work is in progress to finalise the third party agency to carry out and complete this assessment within H1 FY 2025.

As we proceed with our TCFD journey, our commitment to enhancing climate-related disclosures and actions remains steadfast. We will persist in evaluating and disclosing climate-related risks and opportunities, enhancing our risk management practices, setting ambitious targets, and investing in low-carbon technologies. Through these endeavours, we aim to generate sustainable long-term value for our shareholders while actively contributing to a sustainable future.

Wind Project, Tuticorin

Energy

Key Highlights

- Addition of 331 MW (FY 2024) renewable portfolio mix, a step towards our "Net Zero" commitment by 2050 or earlier.
- Increase in renewable energy capacity by 9.7% as compared to previous year

Strategic Approach

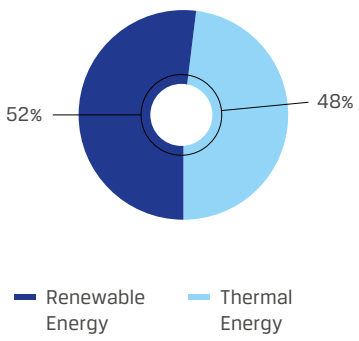
As a leading player in the energy sector, JSW Energy actively contributes to the nation's economic growth by meeting escalating energy demands. Embracing renewable energy as a catalyst for sustainable development, JSW Energy prioritises operational efficiency and energy optimisation across its value chain. By adhering to industry-leading energy management practices and integrating cutting-edge technologies, the organisation maximises asset utilisation while minimising environmental impact. With diversified investments in Solar, Wind, Hydro, and green hydrogen projects, JSW Energy aligns its energy portfolio with national climate goals, advancing towards deeper decarbonisation. Committed to innovation and sustainability, JSW Energy stands at the forefront of driving positive change in the energy landscape, fostering a greener and more resilient future for all.

Targets

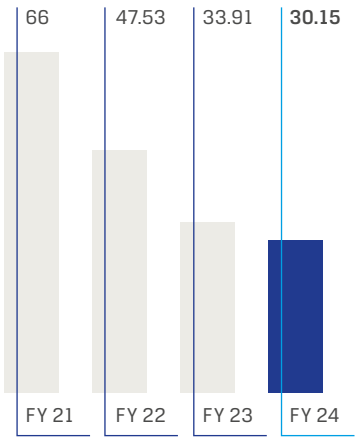
- Enhance the Renewable Power share in our Total Installed Capacity by 2030
- Reduce our Energy Intensity and Auxiliary Power Consumption by more than 50% by 2030

Solar & Wind Plant, Acquired RE

Share of Renewable/Thermal in Energy Mix, FY 2024



Energy Savings (MU)



Energy consumed (JSW Energy Consolidated)*:

1,59,172 GJ

Renewable sources fuel consumed

Non-Renewable sources fuel consumed*:

19,46,34,625 GJ

Total electricity consumption

9,42,80,562 GJ#

Total Energy consumption within organisation

1,27,830 GJ

Electricity, heating, cooling, steam consumed

10,06,41,065 GJ

(Minus) Electricity, heating, cooling, steam sold

Calculation as per GRI-302-1 Indicator

* Rounded off to nearest integer

Clean Energy

JSW Energy is taking strides to tackle climate change as a responsible business. We are committed to reach Net Zero emissions by 2050, by progressively increasing the clean energy capacity. This move will help the nation reduce its carbon footprint. JSW Energy is also finding new ways to optimise use of water and manage waste more sustainably. We are following global goals for a better world and making their energy sources cleaner and greener. With these efforts, JSW Energy is leading the charge for a healthier planet, making sure our future is bright and sustainable.

Initiatives undertaken to increase the share of Renewable Energy

- **Increased Renewable Energy Capacity:** Added 331 MW of renewable energy.
- **Renewable Energy Projects Under Construction:** Currently building projects totalling 2.2 GW.
- **Battery Energy Storage System (BESS):** Initiated construction of a new battery storage project.
- **Hydro Pumped Storage Project:** Pre-development activity on a pumped storage project.

Sustainable Financing Through Green Bonds

JSW Hydro Energy has implemented a comprehensive Green Bond Framework. This framework, meticulously crafted, serves as a robust methodology guiding all future green bond instruments issued by the company. It establishes clear guidelines and principles to uphold transparency, disclosure, and integrity in the development of a sustainable finance market. These Green Bonds serve as a vital financial instrument, facilitating investments in the company's renewable energy projects. To ensure consistency and adherence to best practices in its green bond issuances.

Aligned with the International Capital Market Association (ICMA) Green Bond Principles (GBP) of 2018, JSW Hydro Energy's Green Bond Framework adheres to globally recognised standards in sustainable finance. By embracing the GBP, the company aims to foster responsible investment and bolster the growth of the clean energy sector.

The issuance of green bonds has proven instrumental for JSW Hydro Energy in securing investments for its clean energy projects. These funds play a pivotal role in supporting the development and expansion of hydro-based power plants, contributing significantly to the reduction of carbon emissions and the mitigation of climate change impacts. By harnessing the potential of green bonds and aligning with international standards, JSW Hydro Energy underscores its unwavering commitment to sustainable finance and environmental stewardship. The company's proactive approach in raising funds through green bonds

JSW ENERGY ALIGNS ITS ENERGY PORTFOLIO WITH NATIONAL CLIMATE GOALS, ADVANCING TOWARDS DEEPER DECARBONISATION. COMMITTED TO INNOVATION AND SUSTAINABILITY, JSW ENERGY STANDS AT THE FOREFRONT OF DRIVING POSITIVE CHANGE IN THE ENERGY LANDSCAPE, FOSTERING A GREENER AND MORE RESILIENT FUTURE FOR ALL.

propels the transition towards a greener and more sustainable energy future.

The Green Bond Framework comprises five foundational pillars: Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds, Reporting, and External Review. These pillars form the cornerstone of JSW Hydro Energy's green bond initiatives, delineating the principles and guidelines essential for transparency, accountability, and effective management of funds raised through green bond issuances. Through these concerted efforts, JSW Hydro Energy continues to lead the charge towards a brighter and more sustainable future for generations to come.

Internal Carbon Pricing

JSW Energy is committed to combating climate change and has implemented an Internal Carbon Pricing (ICP) mechanism as part of its sustainability efforts. This approach is pivotal in reducing greenhouse gas emissions and transitioning towards a low-carbon economy. Adopting the shadow pricing method, JSW Energy has established an ICP range of 10-12 USD per tonne of CO_2e through extensive analysis of global carbon pricing data.

The incorporation of ICP allows the company to integrate the costs of carbon emissions into decision-making processes, encouraging the adoption of cleaner technologies. Investments in energy-efficient equipment, such as Variable Feed Drives (VFDs), have been initiated based on ROI analysis using shadow pricing. This not only enhances operational efficiency but also reduces emissions.

By embracing Internal Carbon Pricing, JSW Energy incentivises emission reduction efforts, optimises energy use, and fosters innovation. It enables informed decision-making by assessing financial implications associated with emission scenarios. Through these measures, JSW Energy aims to lead the energy sector towards a sustainable future while creating long-term value for stakeholders and addressing climate change challenges proactively.

Hydro Plant, Sholtu

Water

Key Highlights

- Maintained zero liquid discharge across operations
- Optimising utilisation of rainwater harvesting system
- Reuse of treated effluent of Sewage Treatment Plant for horticulture
- Dry cleaning adopted instead of wet module cleaning resulted in significant saving of ground water (approx.: 2,400 m^3 per month)

Strategic Approach

JSW Energy places significant emphasis on responsible water management due to its critical role in various operations like cooling, ash disposal, and firefighting. We understand the necessity of water for sustaining life and supporting business functions, and the Company implements structured processes to identify, manage, and mitigate water-related risks effectively.

Moreover, JSW Energy actively works towards maximising water usage efficiency across its operational sites and surrounding areas. Around our Ratnagiri plant we have devised robust long-term watershed management strategies aimed at ensuring sustainable water usage and preserving water resources for host communities. These strategies are meticulously designed to address the diverse needs of both the organisation and its stakeholders while promoting environmental sustainability.

By prioritising water stewardship, we strive to minimise environmental footprint, optimise resource utilisation, and contribute positively to the communities in which we operate. Through proactive water management initiatives, the Company demonstrates its commitment to environmental conservation and sustainable development, aligning with its broader corporate responsibility goals.

Targets Undertaken

Reduce our water consumption per unit of energy produced by 50% by 2030

Water Withdrawal (KL)*

FY 2022	FY 2023	FY 2024
Groundwater	Groundwater	Groundwater
0 KL	28,017 KL	6,14,920 KL
Surface water	Surface water	Surface water
2,48,24,795 KL	2,88,27,036 KL	2,81,78,602 KL
Third-party water	Third-party water	Third-party water
0 KL	0 KL	43,059.57 KL
Seawater	Seawater	Seawater
6,53,25,454 KL	5,84,11,696 KL	8,09,71,172 KL
Total	Total	Total
9,41,88,905 KL	8,72,66,750 KL	10,98,07,754 KL

* Rounded off to nearest integer

Water Stewardship Case Study

Improvement of RO to DM Plant line reliability – Vijayanagar Plant	
Problem Faced	The selection of UPVC pipes for a 1,400-metre long pipeline to transport RO permeate water aimed at cost-effectiveness. However, this choice led to joint dislocation and jerking under back pressure, causing frequent failures and preventing the commissioning of the DM Plant for service. Despite short-term operations, the design flow of 120 m^3/hr has not been attained.
Work Undertaken	Based on the Root Cause Analysis (RCA) findings regarding frequent failures in the UPVC pipeline and insufficient flow, the following measures were implemented: 1. Installation of an internally developed SS Bellow Hose to mitigate back pressure and prevent dislocation in the UPVC pipeline. 2. Removal of the Non-Return Valve (NRV) in the DM Feed pump line, which had a smaller bore than the pipe, causing flow restrictions. 3. Replacement of the isolation valve in the raw feed water line to address the issue of pressure exceeding that of the RO permeate water pressure at the Demineralisation Plant (DMP).
Result Achieved	After implementing our strategy, we achieved a flow improvement to 120 m^3/hr, ensuring a reliable UPVC pipeline with 100% reliability. Additionally, this modification resulted in significant water savings, reducing UF waste water by 50% (equivalent to 10500 m^3/month) and decreasing DMF, SAC, and SBA backwash water consumption by 50%, saving 1500 m^3/month.

Initiatives Undertaken for Water Efficiency – Ratnagiri Plant

Water Audit Mechanism

Central to our water conservation efforts is a robust water audit mechanism. Through quarterly walk-throughs and the strategic installation of flow meters, we meticulously monitor and optimise water consumption across our operations. This proactive approach enables us to identify inefficiencies, detect leakages, and implement targeted interventions to minimise water wastage, ensuring every drop is utilised judiciously.

Rainwater Harvesting

Recognising the paramount importance of rainwater as a renewable resource, JSW Energy has invested in comprehensive rainwater harvesting infrastructure. By constructing a dam near Vinayakwadi township and augmenting our water storage capacity, we harness nature's bounty to supplement our water supply. This sustainable practice not only reduces our reliance on external water sources but also mitigates the impact of water scarcity on local communities, fostering resilience and self-sufficiency.

Increased Water Consumption Efficiency

Through relentless innovation and efficiency optimisation, JSW Energy has achieved significant reductions in water consumption at Ratnagiri and Barmer thermal power plants. From implementing active water saving O&M strategies to streamlining operational processes, every effort is geared towards maximising water efficiency and minimising waste. As a result, our annual water consumption intensity has significantly improved from 1.11 m^3/MWh to 0.95 m^3/MWh, showcasing the tangible impact of our conservation initiatives on the ground.

Waste Water Management

Key Highlights

Successfully recycled and reused an impressive 4,161.33 million litres of water

Strategic Approach

JSW Energy strives to drive 'Zero Liquid Discharge' policy across its plants, internally managing process wastewater through recycling and reuse. This strategy eliminates the need for effluent discharge outside the plant, aligning seamlessly with our sustainability objectives. Wastewater treatment and recycling are integral components of this approach, ensuring water is either reintegrated into the water use cycle or repurposed for horticultural purposes. In FY 2024 alone, JSW Energy, underscoring our steadfast dedication to sustainability and responsible resource management, has successfully recycled and reused an impressive 4,161.33 million litres of water.

Water Water Treatment Plant, Hydro Sholtu

Targets Undertaken

Maintain a 'ZERO LIQUID DISCHARGE' for all our power plants by 2030

Waste Water Recycled and Reused (kL)

	FY 2022	FY 2023	FY 2024
Wastewater Recycled	36,29,999 KL	42,80,818 KL	41,61,333 KL

Waste Management

Key Highlights

- Reutilising pond ash as well as bottom ash in Boiler.
- Continue 100% Ash utilisation initiatives at all plants through tie-ups with cement factories & similar businesses

Strategic Approach

At JSW Energy, reducing our environmental impact is our top priority, influencing every business decision we make. As a leading energy provider, we operate complex systems that produce various waste streams, some of which may be hazardous. That's why we are committed to implementing sustainable waste management practices to ensure safe disposal. Recognising our responsibility, we embrace circularity principles to manage waste sustainably. This includes initiatives like recycling rejected coal and hazardous waste, as well as utilising ash in cement manufacturing. By adopting these practices, we not only minimise our environmental footprint but also contribute to a more sustainable future for generations to come.

Targets Undertaken

Maintain 100% recycling of fly ash and wastes generated from our operations

Waste – Ash Utilisation (%)

	FY 2022	FY 2023	FY 2024
Waste Ash Recycled	96.9%	100%	100.74%*

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

Waste Utilisation

	FY 2022	FY 2023	FY 2024
Non-Hazardous Waste (Ash)	14,71,833 MT	13,89,038 MT	13,64,733 MT
Hazardous Waste	243.45 MT	140.6 MT	166.12 MT

Waste management is a top priority at JSW Energy, and our teams are dedicated to ensuring compliance with all regulations for handling both hazardous and non-hazardous materials responsibly.

Across our power plant locations, we have established partnerships with authorised agencies to recycle, reuse, or dispose of waste safely and sustainably.

Hazardous Waste: For hazardous waste like waste oil, e-waste, battery waste, MS scrap, and plastic waste, we have designated storage areas equipped with safety measures.

These materials are handled and disposed of responsibly through authorised recyclers.

Non-Hazardous Waste: Regarding non-hazardous waste, such as ash generated by our thermal power plants, we have structured systems in place for collection, storage, and disposal. Ash is collected in silos and then transported to cement and brick-making companies for reuse in their products. This approach ensures efficient utilisation of resources and minimises environmental impact. At our Ratnagiri plant, we have constructed a 45,000 MT Ash Silo at the adjacent Port facility through which we are able to export the Ash to other countries for utilisation at their end.

Value Creation Story – Sailing Towards Sustainability: JSW Energy's Visionary Ash Management Journey

Overview of JSW Energy Ratnagiri's Operations

- State-of-the-Art Thermal Power Plant
  - Operating a 1,200 MW Thermal Power Plant, JSW Energy is a pivotal player in the region's progress
  - Reliant on imported coal from Mozambique, Colombia, South Africa, and Indonesia

The Challenge of Fly Ash

- Significant Production
  - The plant generates a substantial 1,800 to 2,000 metric tonnes of fly ash daily
  - Historically transported to cement units, RMC plants, and traders in Mumbai, Pune, and Kolhapur
  - Faced logistical disruptions due to local protests, cultural festivals, adverse weather, and competition from new power plants

Initiative Highlights

- Strategic Ash Silo Construction
  - Constructed a state-of-the-art ash silo with a capacity of 45,000 metric tonnes
  - This investment enhanced storage and transportation infrastructure, ensuring efficient ash management and reducing logistical hurdles
- Exploring Export Markets
  - Leveraged the plant's coastal location and proximity to a green field port to explore export opportunities
  - Utilised coastal routes to open new avenues for sustainable fly ash disposal, reducing the environmental footprint and expanding market reach
- Triumphant Bulk Ash Shipments
  - Successfully loaded and despatched two bulk ash shipments to international markets
  - These shipments marked a significant achievement, underscoring JSW Energy's commitment to sustainability and innovation

Conclusion

- Dedication to Sustainability
  - JSW Energy's approach to fly ash management exemplifies our dedication to environmental stewardship
  - By implementing innovative solutions and exploring new markets, we are mitigating environmental impact and driving industry change
  - JSW Energy remains committed to shaping a sustainable future, ensuring a positive legacy for generations to come

Ash Disposal through Sea Route, Ratnagiri

Air Emissions

Key Highlights

- Ensuring ESP (Electrostatic Precipitator) Fields availability
- Process efficiency improvements being done in all plant locations
- Lime Dozing system availability and parameter optimisation at Barmer to reduce air emissions

Strategic Approach

The conventional generation of power remains a significant contributor to greenhouse gas emissions and other pollutants, exacerbating global warming. In response to the urgent need for more environmentally responsible energy production, JSW Energy has implemented cutting-edge technologies to manage and maintain air quality, a cornerstone of the company's sustainability initiatives.

At the Barmer facility, we have upgraded the existing Electrostatic Precipitators (ESPs) with state-of-the-art models, significantly enhancing the plant's ability to remove particulate matter from flue gases. This upgrade not only improves plant efficiency but also contributes to cleaner air. Similarly, at the Ratnagiri plant, we have installed Flue-gas Desulfurisation (FGD) systems to reduce sulphur emissions, effectively curbing one of the major pollutants from exhaust gases.

These proactive measures at our plants reflect our commitment to environmental stewardship and our agility in adapting to advanced, eco-friendly technologies. While mercury and SF6 emissions are not relevant to our operations and therefore not reported, our focus remains steadfast on reducing other critical pollutants. Through these initiatives, JSW Energy continues to lead in sustainable energy production, striving for a greener future.

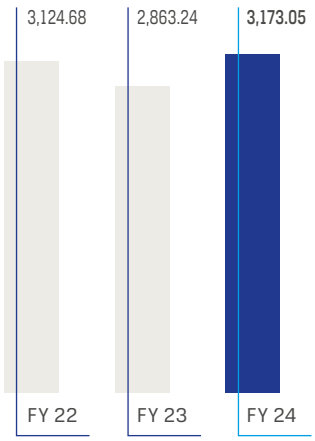
Target

- Reduce the dust emissions, per unit of energy produced, by 2/3rd
- Reduce the emissions of Oxides of Sulphur and Nitrogen, per unit of energy produced, by 60%

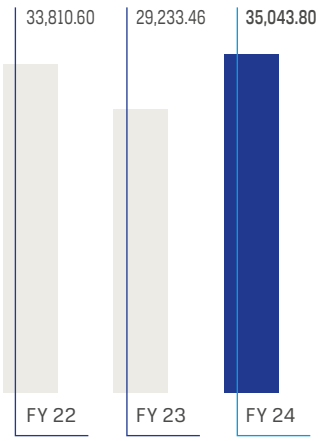
FY 2022	FY 2023	FY 2024
PM	PM	PM
0.14 KG/MWh	0.12 KG/MWh	0.11 KG/MWh
SOx	SOx	SOx
1.52 KG/MWh	1.25 KG/MWh	1.18 KG/MWh
NOx	NOx	NOx
0.81 KG/MWh	0.70 KG/MWh	0.64 KG/MWh

Power Plant, Ratnagiri

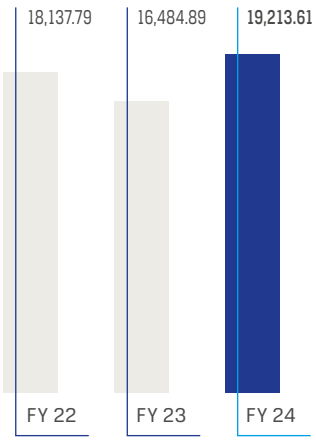
PM (Tonnes)



SOx (Tonnes)



NOx (Tonnes)



The air emissions intensity only for thermal operations are as follows:

1.74 KG / MWh
SOx

0.96 KG / MWh
NOx

0.16 KG / MWh
SPM

Biodiversity

Key Highlights

- Biodiversity Assessment – Phase 2 is completed for Ratnagiri Thermal Power Plant
- Biodiversity Assessment – Phase - 1 for Ind-Barath, Jharsuguda Thermal Power Plant completed
- Increase in green cover at all operations to achieve 'No Net Loss' of Biodiversity by 2030
- Barmer Plant won Prestigious CII-ITC Sustainability Award for Excellence in Biodiversity

Strategic Approach

JSW Energy is deeply committed to preserving biodiversity, proactively identifying and mitigating potential risks to prevent any net loss across its operational sites. Central to our sustainability efforts is reducing the environmental footprint of our business activities.

At our Ratnagiri and Barmer plants, we have implemented extensive ecological conservation programmes that include year-round plantation activities. These initiatives are tailored to sustain the ecological balance within local communities. Our biodiversity protection efforts encompass the preservation and restoration of ponds and green spaces, as well as creating drinking water spots for wildlife around our operational areas.

To gauge the effectiveness of these activities and inform future biodiversity management strategies, JSW Energy conducted a comprehensive seasonal ecosystem study at the Barmer plant. This study, covering all four seasons, provides crucial insights into the ecological patterns and impacts of our operations.

Recognising the potential environmental impact of our activities, we have also initiated Biodiversity Assessments at five of our operating and project sites. These assessments are instrumental in developing and implementing a robust biodiversity management plan. Our goal is to achieve "No Net Loss to Biodiversity" by 2030, ensuring our operations are aligned with environmental stewardship and sustainability.

Horticulture - Barmer Power Plant

Through these proactive measures, JSW Energy not only addresses immediate ecological concerns but also contributes to the long-term health and resilience of the ecosystems surrounding our operational sites. Our commitment to biodiversity is a testament to our broader vision of creating a sustainable future for all.

Target

Achieve a 'no net loss' of biodiversity at all our operating sites

Initiatives undertaken to conserve and protect biodiversity around operating sites

Number of saplings planted

FY 2022	FY 2023	FY 2024
37,196	33,719	18,611

Value Creation Story

Symphony of Sustainability: A Tale of Biodiversity and Conservation at JSW Energy Limited Ratnagiri

Unveiling the Hidden Biodiversity – Biodiversity dependency and Impact Assessment Study

- Comprehensive Biodiversity Assessment
  - A dedicated team embarked on a journey to uncover the hidden biodiversity around the JSW Energy plant in Ratnagiri
  - Motivated by a deep reverence for nature and a desire to integrate sustainability into industrial operations, they set out to document the local flora and fauna

Exploring the Natural Forest

- Cataloguing Flora and Fauna
  - The team began their exploration in the natural forest area, where ancient trees like Terminalia paniculata stood tall
  - Amidst the dappled sunlight, they meticulously catalogued various species, including the vibrant Chromolaena odorata
  - This effort highlighted the rich ecological diversity surrounding the power plant

Promoting Water Conservation

- Discovery of a Rainwater Harvesting Pond
  - Venturing deeper into the forest, the team discovered a rainwater harvesting pond nestled in the foliage
  - Recognising the importance of water conservation, they proposed the development of similar ponds within the plant premises and surrounding villages
  - This initiative aims to ensure a sustainable water supply for both the ecosystem and local communities

Soil Health Preservation

- Topsoil Management Practices
  - On the plant premises, the team observed effective topsoil management practices in action
  - They recommended adopting similar practices across the plant to minimise soil erosion and maintain soil fertility, crucial for long-term environmental health

Supporting Wildlife Conservation

- Olive Ridley Turtle Conservation
  - The team's journey led them to a group of volunteers engaged in conserving Olive Ridley Turtles
  - Moved by the plight of these endangered creatures, JSW Energy pledged support for raising awareness and protecting their nesting grounds along the coastline

Enhancing Biodiversity

- Mixed Plantation System Proposal
  - To further enhance biodiversity, the team proposed a mixed plantation system blending native and other species
  - This approach aims to strengthen ecosystem resilience and promote diverse plant life
  - They also envisioned developing a Herbal Garden under the high voltage AC transmission towers to showcase the region's rich medicinal flora

Conclusion

- Integration of Sustainability and Industry
  - These initiatives reflect JSW Energy's commitment to preserving biodiversity while maintaining industrial productivity
  - By implementing these proposals, JSW Energy aims to create a harmonious balance between nature conservation and energy production, demonstrating our dedication to a sustainable future

Wildlife Near Ratnagiri Plant

Value Creation Story

Afforestation Activity by JSW Energy

At Vijayanagar Power Plant, JSW Energy Limited is making a significant impact on the environment. By planting 4,789 saplings and maintaining lush gardens with green grass, boundary plants, and hedges, the plant is actively enhancing the greenery on its premises.

In celebration of World Environment Day on June 5, 2023, themed 'Solutions to Plastic Pollution,' the plant organised a mass plantation event. This initiative not only strengthens the existing green cover but also engages and motivates employees. Recognising the 'Best Horticulture Champion' highlights the commitment to a clean and green environment, fostering a culture of care for nature among workers. Through these efforts, Vijayanagar Power Plant is driving positive environmental change and promoting sustainability.

Green Cover at Vijayanagar Power Plant

OUR PEOPLE-CENTRIC APPROACH SOCIAL SUSTAINABILITY – PROGRESS STARTS WITH PEOPLE

Key Highlights

- 19% increase in female workforce
- 35% increase in training manhours
- 100% Employees received performance and career development reviews

Strategic Approach

At JSW Energy, we believe that our employees are the driving force behind our sustainable growth. By selecting talent from diverse fields, we aim to lead a paradigm shift and create an environment where everyone can fully demonstrate their unique qualities. Our people are essential to our growth and success.

JSW Energy is committed to the continuous professional and personal development of our employees. We offer training in various areas, including health and safety, skill enhancement, and soft skills. We believe that an agile workforce and a vibrant work environment, combined with our employees' expansive skill sets and technical expertise, are key to delivering innovative and sustainable solutions. This, in turn, creates long-term value for all our stakeholders.

For us, human capital is not just a strategic differentiator; it is at the core of our existence. We consistently strive to foster an environment that supports our employees' growth and aspirations. Leveraging our robust pool of knowledge, skills, competencies, technical expertise, and experience, we drive shared organisational objectives and maximise value.

Employees at Barmer Plant

JSW Energy has adopted various policies to ensure the development of our human capital and the community. We believe in the power of our workforce to bring about meaningful change and drive our mission forward. Our dedication to our employees' development is unwavering, and we are proud to support their journey towards achieving both personal and professional excellence.

- Policy on Human Rights
- Policy on Labour Practices and Employment Rights
- Health and Safety Policy
- Policy on Local Considerations
- Policy on Social Development and Community Involvement
- Policy on Indigenous People and Resettlement
- Policy on Cultural Heritage
- Policy on Making Our World a Better Place

Permanent Employees

Age Group	FY 2024		FY 2023		FY 2022	
	Male	Female	Male	Female	Male	Female
〈30	231	32	183	19	49	11
30-50	1,802	80	1,736	74	1,186	48
〉50	343	12	287	11	298	11
Total	**2,376**	**124**	**2,206**	**104**	**1,533**	**70**

Other than Permanent Employees

	FY 2024	FY 2023	FY 2022
Male	5,299	2,310	2,268
Female	172	120	189
Total	**5,471**	**2,430**	**2,457**

New Hires - Permanent Employees

Age Group	FY 2024		FY 2023		FY 2022	
	Male	Female	Male	Female	Male	Female
〈30	104	21	136	11	38	7
30-50	195	6	606	29	80	2
〉50	18	0	35	2	10	0
Total	**317**	**27**	**777**	**42**	**128**	**09**

Employee Turnover

Age Group	FY 2024		FY 2023		FY 2022	
	Male	Female	Male	Female	Male	Female
〈30	30	6	8	4	13	3
30-50	90	3	58	4	56	1
〉50	33	0	32	2	2	0
Total	**153**	**9**	**98**	**10**	**71**	**4**

Performance and Career Development Reviews

Employees	FY 2024	FY 2023	FY 2022
Male	2,376	2,206	1,533
Female	124	104	70
Total	**2,500 (100%)**	**2,310 (100%)**	**1,603 (100%)**

Training Data

Age Group		FY 2024	FY 2023	FY 2022
Total Number of Permanent Staff Attended	Male	2,376	1,645	1,202
	Female	124	79	
Total Number of Training Hours	Male	49,000	37,108	23,198
	Female	4,092	2,331	
Average Training Hours	Male	20.62	17.5	14.47
	Female	33	23.31	

CARE Model

At JSW Energy, we understand that a dynamic and motivated workforce is essential for meeting our goals and driving our sustainability initiatives forward. As we navigate the shift back to regular operations, our HR team has been pivotal in facilitating this transition. We prioritise the well-being of our employees, recognising that their physical and mental health is fundamental to our success.

CARE Initiative: A World-Class Employee Experience

Cross-Functional Collaboration:

The CARE initiative exemplifies our commitment to a world-class employee experience. By promoting collaboration across all functional areas, we aim to achieve desired business outcomes and foster a supportive and productive work environment.

Employee Well-Being:

Central to this initiative is the focus on employee well-being, both physical and mental, ensuring our workforce remains motivated and resilient.

Aligning Vision and Engagement

We prioritise aligning our vision, mission, objectives, and strategies with active employee participation and engagement. This approach ensures our workforce is highly motivated to meet Key Performance Indicators (KPIs) within defined timelines, enabling JSW Energy to achieve its business goals sustainably.

The CARE Model

The CARE model is built on four key elements:

Communication | Agility | Responsibility | Elevation

Communication

- Comprehensive Structure: Establishes a framework to engage employees across functions.
- Grievance Redressal: Implements a mechanism to capture valuable insights and address business issues through a knowledge management system.
- Collaborative Culture: Promotes continuous learning and multi-level communication, supporting overall business objectives.

Agility

- Stakeholder Engagement: Enhances engagement through innovative and advanced mechanisms, ensuring adaptability and responsiveness in our operations.

Responsibility

- Problem-Solving Approach: Fosters a Kaizen culture of continuous improvement.
- QC Activities: Institutionalises Quality Circles on the shop floor, creating an engaged workforce that supports business objectives.

Elevation

- Rewards and Recognition: Augments a culture of multi-functional rewards and recognition, celebrating achievements throughout the organisation.

By integrating the CARE model, we drive our employees to become more adaptable, resilient, and accountable, achieving meaningful results that align with our company goals. We believe that effective communication and agility, combined with a sense of responsibility and elevation, empower our employees to contribute positively to the growth of JSW Energy.

JSW Energy has been featured among

Top 25

India's Best Workplaces™ in Manufacturing 2024.

JSW Energy has been also recognized as a Great Place to work for the second consecutive year with trust index score of 86 Points.

Employee Well-being

A thriving and productive workplace stems from employees feeling a deep sense of belonging. At JSW Energy, we prioritise our employees' holistic well-being, understanding that both physical and mental health are essential to their success and satisfaction.

Comprehensive Health and Wellness Initiatives

Health Checkups and Insurance: We conduct annual health checkups and provide robust medical insurance, accident, and life cover to ensure our employees' physical well-being.

Onsite Health Centres: Accessible onsite health centres are available, offering immediate medical treatment and support to our workforce.

Mental Health Focus: Recognising the importance of mental health, we implement various programmes aimed at helping employees manage stress, maintain a positive outlook, and stay productive and agile.

Employee Feedback and programmes Enhancement

Regular Feedback Mechanisms: We actively seek constructive feedback from our employees to identify any gaps in our health and well-being initiatives.

Continuous Improvement: Using this valuable feedback, we continually refine and develop new programmes to meet the evolving needs of our workforce.

Building a Sense of Belonging

Engagement and Inclusion: By fostering an inclusive environment where employees feel valued and heard, we enhance their sense of belonging and commitment to the organisation.

Supportive Culture: Our efforts to support employee well-being create a workplace culture that is both happy and productive.

JSW Energy is dedicated to creating an environment where employees feel connected and supported, recognising that their well-being is key to our collective success. Through our comprehensive initiatives and commitment to continuous improvement, we ensure that our workforce remains healthy, motivated, and engaged.

People Management through Digitalisation

In today's landscape, where organisations are resuming standard operations, digitalisation is revolutionising the core functionalities of businesses. Digital transformation, once confined to the C-suite, is now a crucial catalyst for rapid progress across all levels and geographies. JSW Energy has wholeheartedly embraced this digital shift, integrating advanced technologies throughout its business processes to enhance efficiency and innovation.

Digital Transformation at JSW Energy

Holistic Integration: Our approach to digital transformation spans all aspects of the organisation, from managing people to streamlining processes. This comprehensive integration ensures that every facet of our operations benefits from cutting-edge advancements.

HR as a Key Driver: At the heart of this transformation is our HR department, which plays a pivotal role in accelerating operational excellence. By leveraging digital tools, HR enhances employee management, engagement, and productivity, fostering a more agile and responsive workforce.

Enhanced Operations: Through digitalisation, JSW Energy optimises its operations, driving faster decision-making and more effective resource allocation. This shift not only improves current processes but also paves the way for future innovations.

By embracing digital transformation, JSW Energy is not just keeping pace with industry standards but setting new benchmarks for operational excellence and innovation.

Future of Work

JSW Energy recognises the immense value created by its employees across all operations. As we embark on expanding our presence, our HR team is focussed on creating more upskilling opportunities across engineering, operations, maintenance, and project management. This empowers our workforce to embrace challenging roles and develop the skills necessary to thrive with emerging technologies.

Digital Monitoring, Vijayanagar Plant

Embracing New Technologies

Skill Development: Our expansion into renewable energy and battery storage systems will enable employees to acquire new expertise in cutting-edge technologies. These advancements provide a platform for continuous learning and professional growth.

Diverse Opportunities: Diversifying our portfolio opens up opportunities for employees to work on various projects across different sectors and locations. This exposure broadens their horizons and offers diverse perspectives, enriching their professional experience.

Future of Work at JSW Energy

Career Growth: We are committed to offering pathways for career advancement, ensuring that our employees can achieve their professional aspirations.

Increased Job Satisfaction: By investing in skill development and providing varied opportunities, we aim to enhance job satisfaction and foster a motivated workforce.

Employee Retention: Our focus on continuous learning and development not only equips our employees for future challenges but also promotes long-term retention by creating a fulfilling and engaging work environment.

JSW Energy is dedicated to building a future where our employees are empowered with the skills and opportunities needed to succeed in a rapidly evolving industry.

Succession Planning

As organisations expand their operations globally, succession planning has become critical for ensuring business continuity, adapting to evolving market dynamics, and enhancing employee productivity. At JSW Energy, we prioritise this strategic initiative, believing in the power of internal talent development and the infusion of fresh leadership perspectives.

Enhancing Internal Talent

Skill Enhancement: JSW Energy focusses on mobilising internal resources through comprehensive skill enhancement training. These programmes are designed to fast-track employees' vertical growth, preparing them for higher responsibilities and creating a versatile talent pool capable of thriving in a multi-functional environment.

Balanced Business Operations: By equipping employees with diverse skills, we ensure they can navigate challenging times and maintain balanced business operations, fostering resilience and adaptability within our workforce.

Strategic Succession Planning

Talent Board: As part of our succession planning, JSW Energy has introduced the 'Talent Board' for senior leadership. This initiative helps identify and groom potential successors, preparing them for future leadership roles and ensuring the long-term success of the organisation.

Leadership Development: Through targeted development programmes, we nurture our internal talent, transforming them into effective leaders who can drive the company's vision and goals.

Embracing Fresh Perspectives

Open-Minded Hiring: While we value internal development, we also recognise the importance of bringing in new talent. JSW Energy is open to hiring individuals for top positions who bring fresh ideas and innovative approaches, creating a dynamic balance between experienced internal manpower and new leadership.

Driving Innovation and Growth

Innovation and Freshness: By combining seasoned internal leaders with new hires, we foster an environment of continuous innovation and growth. This blend of experience and fresh perspectives ensures that JSW Energy remains at the forefront of the industry, capable of meeting future challenges with agility and creativity.

At JSW Energy, our commitment to strategic succession planning and leadership development is key to sustaining our growth and maintaining our competitive edge in the global market.

Talent Selection Process

- Selection
- Orientation and Assessment
- Evaluation
- Deliberation

Skill Enhancement through Training and Discussion

Health and Safety

Key Highlights

- LTIFR of 0.15 considering all operational plants of JSW Energy for FY 2024
- 85% contractors have achieved 3 Star rating or more in JSW CARES Assessment
- 51% contractors have achieved 5 Star (Barmer, Ratnagiri, Solar Vijayanagar)
- 91,800+ Cumulative Safety Observations Resolved in FY 2024
- 100% of targeted workers and 98% of targeted employees have completed GWO (Global Wind Organisation) training
- British Safety Council 5 STAR Safety Audit preparation including internal Audits ongoing at JSW Hydro and Barmer Plants

Quick Response Vehicle, Hydro Plant Sholtu

Strategic Approach

At JSW Energy, we prioritise the safety and well-being of our workforce through a comprehensive and robust safety governance structure across all our plant locations. This structure encompasses safety committees, advanced safety systems, and stringent policies that all stakeholders must adhere to. As an ISO 45001 certified company, we are committed to achieving a zero-incidence work environment by implementing rigorous occupational health and safety measures.

AT JSW ENERGY, THE SAFETY OF OUR EMPLOYEES AND ASSOCIATED WORKFORCE IS PARAMOUNT. OUR MISSION IS TO ACHIEVE THE HIGHEST, WORLD-CLASS SAFETY STANDARDS ACROSS ALL OUR POWER PLANTS.

Key Safety Measures and Initiatives

- EHS Policy (Environment, Health & Safety)
  - A comprehensive policy framework guiding our commitment to safety, health, and environmental stewardship
- Robust Safety Management Systems
  - Advanced systems for managing and monitoring safety across all operations, ensuring continuous improvement and adherence to best practices
- Continuous Monitoring and Improvement
  - Ongoing Scheduled monthly and quarterly formal evaluations leading to enhancement of safety systems to maintain an accident-free workplace
- Strict Compliance with Safety and Environmental Regulations
  - Adherence to all relevant safety and environmental standards and regulations, ensuring compliance at all times
- Safety Observation System
  - An online platform promoting a culture of safety among all stakeholders, encouraging proactive identification and reporting of potential hazards
- Safety Committees and Effective Implementation
  - Ten active safety committees oversee the implementation of safety norms and programmes across all operational plants, providing guidance and supervision
- Comprehensive Safety Training
  - Regular safety training modules, both online and offline, for continuous education and awareness among employees
- Proactive Risk Management
  - Barrier Health Management initiative to anticipate high-risk scenarios and implement structured measures to mitigate these risks proactively
- Supply Chain Safety Instructions
  - Clear and detailed safety instructions for our supply chain partners to ensure safety throughout our operations
- JSW CARES Program for Contractor Safety
  - A dedicated program focussing on the safety management of contractors, ensuring their alignment with our safety standards
- Digital Transformation for Enhanced Safety Management
  - Leveraging digital tools and technologies to enhance safety management and operational efficiency
- Continual Improvement Programmes
  - Ongoing initiatives aimed at embedding safety as a core daily agenda, fostering a culture of continuous improvement.

Our management's ultimate goal is to completely eliminate accidents, thereby reducing both the frequency and severity of incidents. To achieve this, JSW Energy is implementing top-tier safety practices and significantly increasing training hours for employees at all operational levels. This proactive approach is designed to prevent fatalities and ensure a safe, healthy working environment for everyone involved.

Safety Initiatives and Controls

At JSW Energy Limited, the safety of our employees and associated workforce is paramount. Our mission is to achieve the highest, world-class safety standards across all our power plants. By utilising a range of advanced safety systems and tools, we are dedicated to creating a Zero Harm environment. By implementing cutting-edge safety practices, continuously monitoring and improving safety systems, and providing comprehensive training, we strive to create an accident-free work environment. Our dedication to safety is not just about compliance; it's about fostering a culture where every individual feels responsible for their own safety and that of their colleagues. Through these initiatives, JSW Energy remains steadfast in its pursuit of excellence in occupational health and safety.

Here's an overview of our major safety systems and initiatives:

Safety Governance Structure

- Comprehensive Committees and Leadership Engagement
  - Each plant location has an established safety governance structure comprising seven safety committees, three DICs, and one Apex Committee
  - Senior leadership at each plant, including Heads of Departments, lead these teams, ensuring a strong focus on safety

- With 5-7 members per committee, approximately 50-60 employees are directly involved in safety matters
- Monthly meetings are held to review the previous month's performance and plan for upcoming activities

Regular Monitoring and Review

- Safety Steering Committee Meetings
  - Chaired by the JMD & CEO, these meetings involve reviewing safety performance with all Heads of Plants, the Group Safety Head, and the Corporate Safety Head.
  - Held every quarter, these meetings provide top management with direct oversight of safety activities at every plant
  - Monthly Executive Committee meetings where Safety Review is part of the Agenda. Safety achievements along with any pressing safety issues are discussed & resolved

Lone Worker Safety

- Enhanced Vigilance for Isolated Workers
  - Special safety processes and devices are in place for lone workers to ensure their absolute safety
  - In case of any safety concern, alarms are raised to multiple relevant personnel, enabling quick assistance to the lone worker

Safety Perception Survey

- Identifying Critical Safety Issues
  - Conducted at Ratnagiri and Vijayanagar, this survey included over 90% of employees and contract workers
  - Aimed at uncovering critical but hard-to-notice safety issues, the survey results are analysed with the help of a knowledge partner
  - Identified gaps are addressed by modifying systems and processes, providing adequate facilities, and planning welfare activities
  - Similar surveys and initiatives are also implemented at Barmer and Vijayanagar sites

Scaffolding Inspector Certificate Training

- Ensuring Construction Safety Awareness
  - Employees receive training on the safety aspects of scaffold construction before working on such structures
  - These awareness sessions ensure that all employees are well-informed about scaffold safety

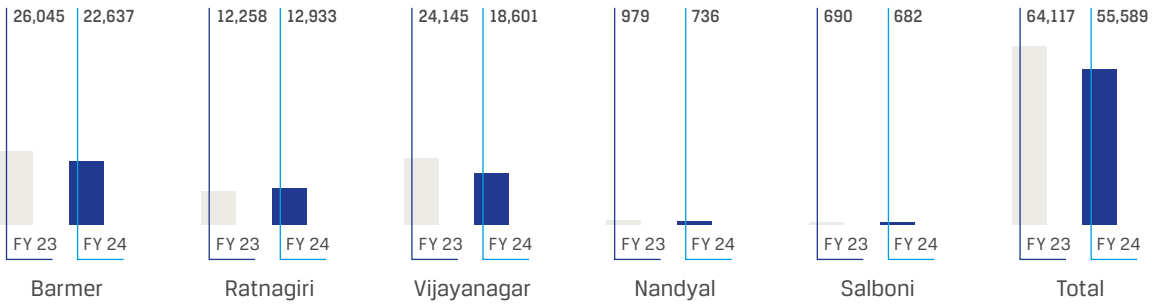
GWO* Trained Workers - Wind Power, Sandur

* Global Wind Organisation

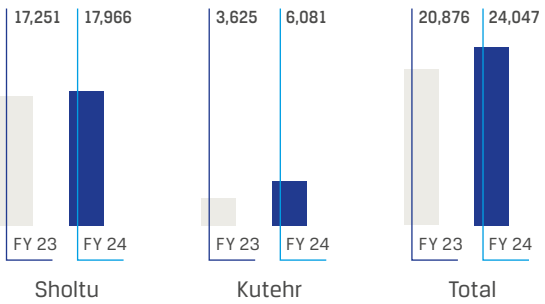
Safety Observation System (SO)

- Proactive Hazard Identification
- Safety Observation System continues to spearhead the resolution of big and small safety concerns at all locations and it plays a significant role to usher in a culture of safety amongst the employees and workers. A comparative performance of SO's in the last two years is provided below. It can be seen that while the operational plants (mainly thermal) have a maintained their SO performance, there is significant increase in the SO (FY 2024) of the ongoing projects in the Hydro and Renewable where more safety observations happen due to extensive construction work where the element of Risk is much higher than the operational plants.

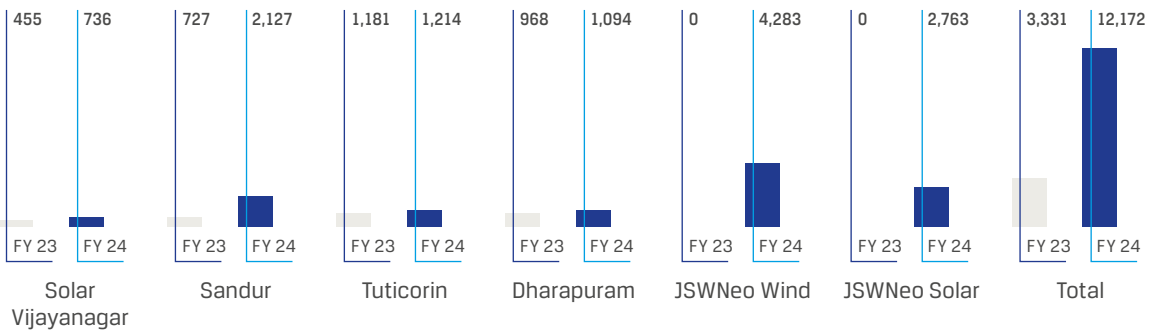
Thermal Power Plants - Safety Observation - FY 2023 vs FY 2024 (Numbers)



Hydro Plants - Safety Observation - FY 2023 vs FY 2024 (Numbers)



Renewable Plants / Projects - Safety Observation - FY 2023 vs FY 2024 (Numbers)

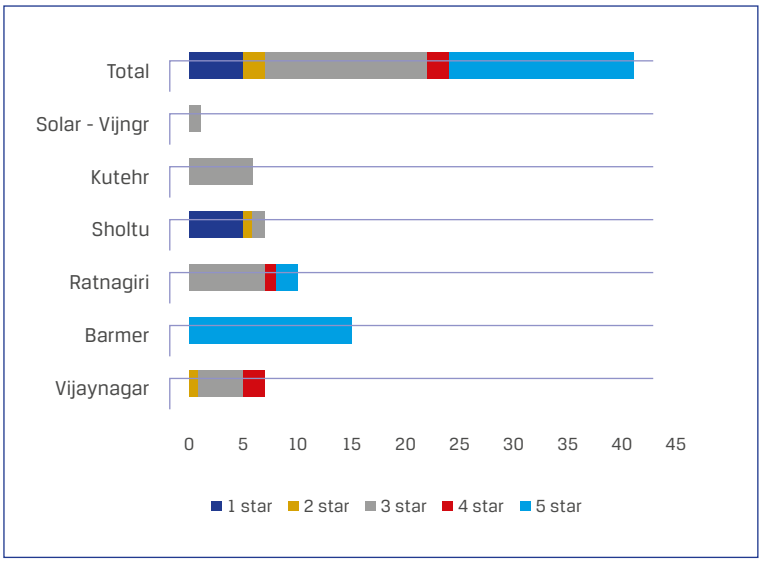


Contractor Safety Management

- JSW CARES Program
  - Actively implemented at all major JSW Energy locations
  - Evaluates safety systems, documentation, and performance
  - Conducted biannually for each contractor
  - Contractors rated on a 5 STAR scale
  - 5 STAR contractors become preferred partners for JSW Energy

The comparative status of last 2 years JSW CARES program is provided below:

JSW CARES FY 2023



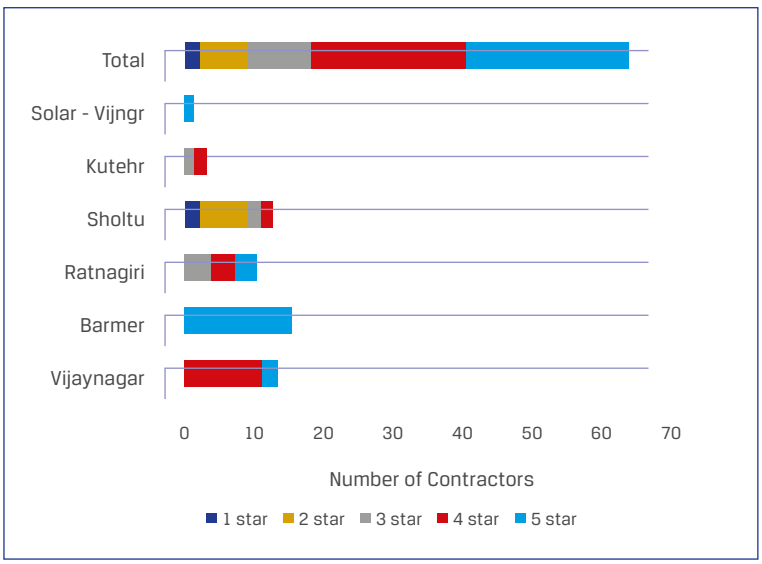
Important Metrics

100%
of all JSW Energy High Risk Contractors evaluated by JSW CARES

85% (54)
contractors are 3 STAR and above

32
contractors (51%) contractors have now achieved 5 STAR rating

JSW CARES FY 2024



Also looking at the 'total' in the above charts, we can easily decipher that the number of 4 star and 5 Star rated contractors have increased significantly as compared to the previous year, thereby indicating that the contractors have improved their safety systems with adequate support from JSW Energy teams.

Barrier Health Management (BHM)

- Overview
  - BHM program handles high-risk processes at JSW Energy
  - Successfully implemented for the past 4 years
- FY 2024 Initiatives
  - Launched 5 new BHM programs across four major Thermal and Hydro power plants i.e. BHM Risks number 21 to 25. All the 5 BHM risks have been completed at all the 4 locations. The new equipment/processes are also installed/integrated
  - BHM Utilises systematic risk identification through collective brainstorming and focussed discussions
  - Risk mitigation strategies include improvements in processes, equipment, and engineering/ administrative controls
- Technical Tool
  - Bow-Tie methodology used to identify improvements in potential accident causes
- Management of Change (MoC)
  - New equipment/processes go through the MoC process for information flow to all relevant stakeholders and operational teams
- Permit to Work (PTW) System
  - PTW is mandatory across all plants
  - No work is authorised without an approved PTW
- Job Safety Analysis (JSA)
  - JSA is integrated into the PTW system
  - Every PTW requires a completed JSA to be approved
- Hazard Identification & Risk Analysis (HIRA)
  - HIRA is conducted for all annual repetitive maintenance activities
  - Risks identified in HIRA are reviewed and included in the JSA
  - Additional hazards are added to the HIRA list with required mitigation actions
- Lock Out & Tag Out (LOTO) System
  - All plants are equipped with necessary LOTO equipment
  - LOTO is used for isolating electrical and mechanical energy during maintenance
  - LOTO application follows finalised standard operating procedures (SOPs)
  - Maintenance teams receive extensive training on LOTO implementation
  - No PTW is approved without the application of LOTO where energy isolation is required

Occupational Health Centres (OHC)

- Each plant location is equipped with an OHC staffed by qualified doctor and support personnel
- OHCs handle and record first aid cases, minor injuries, and ailments
- Basic medical tests and annual medical check-ups for the workforce are conducted at these centres
- The Vijayanagar plant location is additionally supported by Sanjeevani Hospital, run by the JSW Group, for emergencies beyond the OHC's capacity

Worker Medical Check-up at OHC Ratnagiri

Safety Performance Indicators

		FY 2024	FY 2023	FY 2022
Operational Plants				
Fatal	Employee	0	0	0
	Worker	1	0	1
Loss-Time Injury	Employee	0	0	0
	Worker	1	0	0
LTIFR	Employee	0	0	0
	Worker	0.15	0	0.1
Under Construction Projects				
Fatal	Employee	0	0	0
	Worker	2	0	0
Loss-Time Injury	Employee	0	0	0
	Worker	3	0	0
LTIFR	Employee	0	0	0
	Worker	0.40	0	0

Based on the incident reports and Root Cause Analysis (RCA) at various operational plants and under-construction projects of JSW Energy Ltd, the following major Corrective and Preventive Actions (CAPA) have been implemented across all plants & project locations -

- Along with the Safety induction training, all workers in solar plants shall be given an additional electrical safety training including the do's & dont's before they can work inside the plant
- Refresher PTW training to be provided to JSW Energy and Contractor teams, explaining the critical skill of Risk Identification and mitigation strategies
- Risk Assessment of lightening arrestors (LA) in the Solar plants to be done and based on the assessments the CAPA shall be completed
- No worker to be deployed inside the plant without a competency & skill assessment
- At all solar plants, no PTW to be authorised without additional approval by JSW Site incharge / Authorised JSW team member apart from the C Licence Holder.
- Pre-Startup Risk Assessment and Checklist to be completed before use of all critical equipments & machinery
- Regular TBT before start of jobs
- Monthly Mock drills for high risk situations
- Utilising LOTO safety system for all Electrical related jobs
- Safety Observation system being followed at all locations
- Special trainings like GWO (Global Wind Organisation) trainings at all WTG locations
- Emergency Response training & mock drills
- BHM High Risk mitigation initiatives
- Contractor Safety Management (CSM) through PQA improvement and JSW CARES assessment

The safety department at all locations continuously monitors the implementations of the safety systems & procedures by different project departments and every month conducts a Reward and Recognition programme for employees and associates for reporting the safety observations, nearmiss and potential hazards. The leadership team gives away the awards and urges & motivates all to continue working safely and reporting the unsafe leading to 'Zero Harm'.

A Safety Stand down meeting is conducted across all plants of JSW Energy sharing the critical incidents and the safety precautions & behaviours that should be followed by all workers & employees of the company so that a similar incident is not repeated at any plant.

Job-Specific Trainings

- Safety Skills Mapping
  - A structured process for mapping safety skills of both JSW Energy employees and contractor employees
- Competency Development Programme
  - Based on the skill assessment, a competency development programme is undertaken for JSW Energy employees
  - The programme's effectiveness is reviewed quarterly
- Training Need Identification (TNI) Matrix
  - Created for each employee to map required safety trainings based on their work area and function
  - Not all employees require all specialised safety trainings, so training needs are customised

- Safety Training Calendar
  - Developed based on the Training Need Identification matrix
  - Monthly Training Modules are established as topics for each specific month
  - The calendar is adaptable and can be updated with additional safety trainings as needed when specific hazard risks increase on site
- Height-Specific Training for Dam and Powerhouse Projects
  - Authority to Halt Work
    - Supervisors, Engineers, Line Managers, and Heads of Department are granted the authority to stop work if hazardous conditions are observed on site
  - Medical Fitness and VERTIGO Test
    - Workers must receive medical clearance to work at heights, confirmed by passing the VERTIGO test
    - Test modules are constructed at plant locations for specific workers already trained for work at height
- Confined Space Training
  - Physical Confined Space Module
    - Available at plant locations for hands-on training to familiarizse workers with confined space conditions.
- Entry & Exit SOP and Rescue Drills
  - Training includes standard operating procedures for entering and exiting confined spaces, along with rescue drills.
- Competency and Skill Development
  - Competency Mapping
    - Top leaders ensure that both employees and contractors' employees are regularly updated and skilled in their functional areas.
  - Gap Analysis
    - Conducted for each employee to identify functional, behavioural, and safety training needs.
- Training Need Identification (TNI)
  - Based on the gap analysis, a TNI is performed to determine specific training requirements for each employee.
- Training Calendar
  - A training calendar is developed to address the identified training needs.

Job-specific functional, behavioural, and safety training are provided according to the training calendar. Trainings conducted during FY 2024

Training Type	Male	Female
Functional	2,037	119
Technical	1,013	72
Behavioural	2,066	166
Safety	2,237	130

Safety March, Barmer Plant

Digitalisation in Safety Management

In this era of technological upscaling, digitisation in safety management is firmly established at JSW Energy. We have embraced a software-based system to log and manage all safety observations, incidents, observation closures, safety compliances, and incident investigations. This system, known as 'mysetu,' is utilised across all operational plants of JSW Energy, ensuring a standardised approach to safety management.

Additionally, our Contractor Safety Management is streamlined through an in-house developed software created by our plant teams. Employee competency mapping and training needs are also tracked and monitored using a comprehensive software developed by our on-site teams. These digital tools are invaluable for analysing and reporting various safety parameters, facilitating better quality decision-making, and saving precious time, which enhances the efficiency of our safety management processes.

JSW Energy is working towards utilising the capabilities of AI and Virtual Reality in the domain of Safety Training. Two AI-enabled VR training sessions were held at our Ratnagiri thermal power plant. Demo training on conveyor belt safety and PPE safety, using VR modules, was conducted by external digitisation partners for all the HOD's of the plant. The module procurement process has been initiated. Going forward the same safety training modules shall be extended steadily to all the power plants.

Other AI-enabled safety tools and modules are also being explored for inclusion in the safety domain.

JSW ENERGY IS WORKING TOWARDS UTILISING THE CAPABILITIES OF AI AND VIRTUAL REALITY (VR) IN THE DOMAIN OF SAFETY TRAINING. AI ENABLED VR TRAINING SESSIONS WERE HELD AT OUR RATNAGIRI THERMAL POWER PLANT.

Virtual Reality & Digitisation for Safety Training

Way Forward

The following major safety related activities are being targeted in FY 2025 apart from the routine safety initiatives of Safety Observations, Safety Trainings, Induction Trainings, Road Safety iInitiatives, etc.

- BSC 5 STAR GAP Audit, Hand Holding and Final 5 STAR Audit at Sholtu Hydropower Plants
- BSC 5 STAR Safety GAP Audit and Final Audit at Barmer Thermal Power Plant
- Extending and Implementing of software-based logging and mitigation of all unsafe situations / incidents to all RE plants
- PTW and Risk Assessment Trainings for JSW Mytrah Fleet plants
- Safety & Sustainability External Review & Gap Analysis for all JSW Mytrah Fleet plants
- Target to complete 5 STAR rating in JSW CARES for all critical contractors and 4 STAR for non-critical
- SOP's development for all critical WTG & Solar Safety operations & its subsequent vetting by third party
- Continuity of GWO (Global Wind Organisation) Safety Trainings as per requirement at all WTG locations

RESPONSIBLE SUPPLY CHAIN MANAGEMENT

Key Highlights

- HOD's and selected Procurement Team employees of Thermal, Hydro and Renewable plants covered under ESG Training
- 54 critical suppliers being assessed on Sustainability Parameters

Strategic Approach

At JSW Energy, suppliers are integral to our business success, and we are proactively advancing our commitment to a sustainable and responsible supply chain. We've launched a comprehensive supply chain assessment programme targeted at critical suppliers. Rolled out in a phased manner, this initiative is designed to methodically evaluate and elevate the sustainability standards of our suppliers and business associates.

Through systematic assessments, we pinpoint areas for improvement, foster transparency, and catalyse positive transformations throughout our supply chain. This continuous programme reflects our dedication to cultivating a resilient and socially aware supply chain that mirrors our principles and drives toward a sustainable future.

We are dedicated to fostering a long-term strategic partnership with them to ensure seamless operations. Our commitment extends beyond transactions, aiming to integrate our suppliers and other value chain partners into our sustainability journey by aligning them with our Code of Conduct and ESG objectives.

Building Trust and Collaboration

Cultivating Trust: We prioritise creating an environment of trust and mutual respect with our suppliers, establishing a strong foundation for collaboration and shared progress towards a sustainable, low-carbon economy.

Alignment with ESG Goals: By aligning our suppliers with our ESG targets, we work together to reduce environmental impacts across the value chain.

ESG Engagement and Monitoring

ESG Questionnaire: This year, we introduced an ESG questionnaire for our supply chain vendors. This tool helps us gather ESG-related data and initiatives, enabling us to identify which vendors are actively engaged in sustainability and which need further encouragement.

Workshops and Awareness Sessions: Based on the questionnaire results, we plan to conduct ESG workshops and awareness sessions in the next financial year to elevate the ESG commitment of our vendors and contractors.

Strategic Vendor Selection

Spend and Risk Criteria: We have shortlisted suppliers based on spending and high-risk criteria, ensuring focussed engagement with key partners.

Preferred Partners: Moving forward, we aim to identify and collaborate with preferred partners who demonstrate strong ESG practices, particularly those addressing climate change.

Comprehensive Supplier Management

Supplier Screening Mechanism: Our robust supplier screening mechanism includes prequalification criteria based on our supplier Code of Conduct, ensuring responsible procurement practices.

Adherence to Standards: We expect our suppliers to comply with all statutory and international environmental and social protocols, including our Supplier Code of Conduct and UNGC Principles on Human Rights.

Training and Development

ESG Training for Procurement Teams: Selected procurement team members have already received ESG awareness training.

By working closely with our suppliers and integrating them into our sustainability efforts, JSW Energy is committed to achieving its business goals in a responsible and sustainable manner.

Elements of Supplier CoC

Compliance Management

Statutory compliance, notices, taxes, assurance mechanism for quality check

Environment & Climate Change

Emissions, Effluents, Energy and Biodiversity

Human Rights

Protection and Promotion of Human Rights and rights of indigenous people

Business Ethics

Ethical behaviour, Anticorruption, Conflict of interest, information security

Labour

Freedom of Association, Collective Bargaining, Forced Labour, Child Labour, OHS and Wages

In FY 2024, JSW Energy introduced an ESG questionnaire for some supply chain vendors. This tool helped us capture ESG-related data and initiatives, allowing us to analyse which vendors are actively engaged in sustainability and which need improvement. Our goal is to elevate the ESG commitment of these vendors and contractors by conducting ESG workshops and awareness sessions in the next financial year. Vendors have been shortlisted based on spend criteria and high-risk classification.

Strategic ESG Engagement

Questionnaire Implementation: The ESG questionnaire will enable JSW Energy to identify vendors who are proactive in sustainability initiatives and those who are not.

Workshops and Awareness Sessions: We plan to enhance ESG awareness and commitment among our vendors through targeted workshops and training sessions in the coming year.

Preferred Partner Identification

Short and Medium-Term Goals: Based on climate risk assessments in the value chain, JSW Energy aims to identify and collaborate with preferred partners who exhibit strong ESG practices.

Climate Change Mitigation: By selecting vendors with robust ESG practices, we aim to strengthen our efforts in combating climate change through sustainable business activities.

Continuous Improvement and Evaluation

Ongoing Reassessment: Regular reassessment and evaluation of suppliers and contractors will be critical to fostering an ESG-based governance framework.

Enhanced Sustainability Responsibility: We will focus on ESG risk assessments and develop subsequent mitigation plans to enhance sustainability across our value chain.

JSW Energy is committed to integrating ESG principles into its supply chain management, ensuring that our vendors align with our sustainability goals. This proactive approach not only strengthens our value chain but also contributes to our overarching mission of promoting sustainable and responsible business practices.

Greenery inside Ratnagiri Plant

EMPOWERING COMMUNITIES – CREATING A SOCIAL IMPACT

Key Highlights

- 2,44,498 Beneficiaries Benefited
- ₹ 32.47 crores Total Spend on CSR

Supporting Educational Activities, Barmer

Our CSR Vision

Empower communities with sustainable livelihood

Mission

Empower citizens with better health, education and employment opportunities, and encourage sustainable development in key areas

Strategic Approach

At JSW Energy, our strategic approach to Corporate Social Responsibility (CSR) is built on a foundation of sustainable development and community engagement. We believe that our responsibilities extend beyond our business operations to positively impact the communities where we operate. Our CSR initiatives focus on key areas such as education, healthcare, skill development, sports and environmental sustainability.

By partnering with local communities, we aim to create meaningful and long-lasting change. For instance, our education programmes are designed to enhance learning opportunities for children in underserved areas, while our healthcare initiatives strive to improve access to quality medical services. We also invest in skill development programmes to empower individuals with the tools they need for better employment opportunities, thus fostering economic growth and self-sufficiency.

JSW Energy is deeply committed to environmental stewardship. Our projects include initiatives to promote renewable energy, enhance biodiversity, and reduce carbon emissions, reflecting our dedication to preserving the planet for future generations.

Through a blend of direct involvement and strategic partnerships, we ensure that our CSR efforts are impactful and aligned with the needs of the communities. By fostering a culture of responsibility and sustainability, JSW Energy not only aims to achieve business excellence but also to contribute to the overall well-being of society.

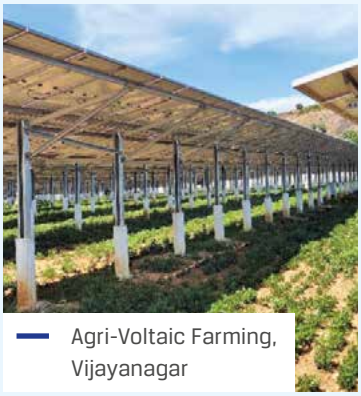
Policies for Community Development

JSW Energy has collaborated with the JSW Foundation both independently and jointly. The policy is available at: https://www.jsw.in/investors/energy/jsw-energy-sustainability-policies

- Villages near the plant will be prioritised and designated as Direct Impact Zones (DIZ), while some policies may extend to areas outside this range, known as Indirect Influence Zones (IIZ)
- Thorough documentation of the process will be conducted to finalise interventions based on qualitative and quantitative data observations
- Interventions in each area will include social mobilisation, advocacy at various levels, and relevant policy reforms.

JSW ENERGY NOT ONLY AIMS TO ACHIEVE BUSINESS EXCELLENCE BUT ALSO TO CONTRIBUTE TO THE OVERALL WELL-BEING OF SOCIETY

Value Creation Story – Agri-Voltaic Farming



Agri-Voltaic Farming, Vijayanagar

JSW Energy embarked on Agri-Voltaic Farming, blending agriculture with renewable energy. Across sprawling fields, solar panels harmoniously coexist with crops, harnessing sunlight for power while providing shade for delicate plants below. This innovative approach optimises land use, boosting agricultural output and green energy production simultaneously. Farmers tend to thriving crops, buoyed by clean energy initiatives.

Despite its climate benefits, the energy transition is not without challenges, one of which being the substantial amount of land needed to set up renewable energy projects. At our captive 225 MW Solar Power Plant, we recognised the imperative to not only advance renewable energy but also to address the challenges associated with land use. We are committed to advancing the principles of a Just Transition, and to that end, we have implemented an innovative Agrivoltaic Farming project in Vijayanagar.

Agrivoltaics leverages the shaded space beneath solar panels to cultivate crops, effectively utilising land for dual purposes: renewable energy generation and agriculture. By integrating agriculture with solar energy infrastructure, we aimed to enhance land-use efficiency while contributing to food security and sustainable energy production.

In our Agrivoltaic Farming project, a portion of the solar power plant was designated for agricultural purposes. Solar panels were strategically positioned approximately 2 metres off the ground to create shaded areas suitable for crop cultivation. This design provided an ideal environment for plant growth, offering protection from adverse weather conditions.

A diverse range of crops including Brinjal, Tomato, Groundnuts, and Okra were selected for cultivation under the project. These crops were chosen based on their compatibility with partial shade conditions and their suitability for local consumption.

One of the significant outcomes of this initiative was the contribution to local communities. The harvested crops from the Agrivoltaic Farming plantations were donated to nearby communities. This aspect underscores the dual impact of Agrivoltaic Farming, addressing both energy and food security challenges.

JSW Energy's commitment to sustainable practices shines through Agri-Voltaic Farming, cultivating a brighter, greener future for agriculture and energy alike.

CSR Focus Areas

The following are the key focus areas of our CSR operations, aligned with Schedule VII of the Companies Act of 2013:

CSR Focus Area	Activity Undertaken	SDG Alignment
Fostering Social Development	Supporting education, skill development, and livelihood enhancement	
Enhancing Living Circumstances	Reducing hunger, poverty and malnutrition	
Tackling Social Inequalities	Promoting gender equality, women empowerment	
Rural Development	Installation of solar lights, renovation of schools, construction of new community buildings and enhancing medical care through distribution of medicines	
Protecting National Heritage	Women Empowerment, Empowering local community of weavers	
Promoting Sports Training	SHIKHAR fellowship	
Enhancing Technological Support	Assisting technology incubators in central government-approved university institutions	

Number of beneficiaries directly impacted through CSR initiatives

FY 2022	FY 2023	FY 2024
1,60,973	2,33,021	2,44,498

CSR Governance / Board Involvement in CSR

The CSR Committee at JSW Energy plays a pivotal role in overseeing the implementation of CSR interventions and managing the financial aspects of CSR programmes. Under the vigilant oversight of the Board, the CSR Committee ensures alignment with strategic objectives, policy development, resource allocation, risk management, and monitoring and reporting of CSR activities.

Strategic Alignment

The Board ensures that CSR initiatives are in sync with the company's overarching strategic goals and values. By actively engaging in decision-making, the Board guides CSR efforts towards areas that resonate with the company's mission and vision.

Policy Development

Board members contribute to the development and enforcement of CSR policies and guidelines. These policies establish the framework for JSW Energy's CSR activities, defining focus areas, budget allocation, and performance measurement criteria.

Resource Allocation

The Board oversees the allocation of financial, human, and technological resources to support CSR initiatives. Through careful evaluation, resources are optimised to maximise positive social and environmental impacts.

Risk Management

CSR-related risks and challenges are evaluated and managed by the Board level CSR Committee. Proactive risk identification and mitigation strategies safeguard the company's reputation and ensure compliance with regulations and standards.

Monitoring and Reporting

The Board closely monitors the progress of CSR initiatives and receives regular reports on outcomes. Performance metrics are reviewed to assess effectiveness, enabling informed decisions to enhance impact and transparency.

Board-level oversight brings expertise, accountability, and strategic guidance to JSW Energy's CSR journey. By integrating social and environmental considerations into core operations, the company contributes to sustainable development while upholding its commitment to responsible practices.

Consolidated CSR Spend (₹ in crore)

₹ 32.47 crore
Total

₹ 6.83 crore
Water, Environment, Sanitation and Waste Management

₹ 1.68 crore
Sports Promotion

₹ 3.67 crore
Agri and Skills Livelihood

₹ 8.43 crore
Community Development and Infrastructure

₹ 2.53 crore
Health and Nutrition

₹ 9.33 crore
Education

Health and Nutrition

Our CSR initiatives in health and nutrition not only support the Indian government's Poshan Abhiyaan but also align with the United Nations' SDG 2 on Zero Hunger. These initiatives aim to address the developmental needs of children and vulnerable populations by providing services, enhancing family nutrition, and improving health facility infrastructure. Implemented in collaboration with the government, international organisations, and local NGOs, these programmes aim to create a sustainable future.

Eye Screening Camp, Barmer

Boxing Academy, Sholtu

Sports Promotion and Development

The Company is actively involved in promoting sports, particularly for rural communities lacking infrastructure, training, and nutrition. Through JSW Foundation, the Company supports rural talent, particularly in boxing, and collaborates with government agencies and sports associations to mentor candidates and represent India in global sports forums.

Project Shikhar

Project Shikhar is a flagship initiative of JSW Energy, launched in 2016 to nurture young boxing talent in Himachal Pradesh's Sangla Valley and prepare them for high-level sporting events. Initially, the project provided boxing kits and infrastructure support, and it has since evolved into a comprehensive support system for young boxers, aiming to foster the ambitions of aspiring athletes in various villages.

High Altitude Boxing Academy, Sholtu

Value Creation Story –
SHIKHAR

Strategic Objective:
Supporting sports enthusiast to become boxing champion at National and International level.

Material Topics Addressed:
Local Communities

Target Area:
JSW Hydro Energy Limited, Sholtu, Himachal Pradesh

Alignment with SDG:


Key Risks:

Challenges: Lack of awareness, infrastructure and sporting avenues

Summary: Name: Kashish Negi

Sport: Boxing, Age: 17 Years

State: Himachal Pradesh

Kashish Negi's journey is truly remarkable. Hailing from the scenic village of Kinnaur in Himachal Pradesh, she faced early tragedy but remained resilient. Initially passionate about running, Kashish's trajectory shifted when she witnessed senior boxers from Sangla engaged in intense matches. Inspired by their skill and determination, she boldly decided to pursue boxing. Driven by this newfound passion, she enrolled at the Government Middle School in Sangla, where she received boxing training at the SHIKHAR Centre through the JSW Foundation.

Kashish encountered numerous challenges during her schooling and early boxing training days. Her relentless efforts have paid off as she consistently achieves victory after victory. Finally, Kashish's ultimate dream of representing her country on an international stage became a reality when she was selected to participate in the prestigious 40th Golden Glove of Vojvodina Men's and Women's Youth Boxing Tournament. With sheer determination and skill, she secured the Bronze medal, marking a significant milestone in her career.

Followings are her major achievements:

- Under-17 School level State Championship-2018: Gold
- Open Sub Junior Girls National Championship-2018: Silver
- Under-17 School National Championship-2018: Gold
- Under-19 Girls School State Championship-2019: Gold
- Girls Sub Junior Open State Championship-2019: Gold
- Junior Men's and Women's National Championship-2021: Silver
- Youth Boys and Girls National Championship-2022: Silver
- 40th Golden Glove of Vojvodina Youth Boxing Tournament-2022 at Serbia: Bronze
- Khelo India North Zone Youth-2022: Silver
- Khelo India Youth Games 2022 {Women}-2022-23: Silver
- State level Youth Men and Women Boxing Championship-2023: Gold

Education and Learning

In the field of education, the company is making significant strides by focussing on various areas including improving school infrastructure, early childhood interventions, remedial classes, e-learning modules, scholarship programmes, teacher training materials, career counselling, and mid-day meals for nutritional support. Students are also encouraged to engage in science and math activities, visit science labs and libraries to stay updated on the latest scientific developments. During the reporting period, 757 students received JSW Udaan scholarships.

Skill Development

According to the Human Development Report by the United Nations Development Programme, one in five Indians is a skilled worker. JSW Energy prioritises the development of rural graduates and the empowerment of rural women to promote grassroots development, impacting nearly 60% of the population.

Charkha

JSW Energy is committed to fostering India's national heritage. Through its prominent initiative, Charkha, JSW sheds light on the hurdles encountered by weavers and endeavours to bolster the Indian handloom industry. As a component of Charkha, JSW has instituted 17 training centres with the objective of empowering rural women and bolstering their economic autonomy through sustainable livelihoods. Over the financial year, more than 430 women artisans participated in training under this endeavour at Sholtu & Kutehr, Himachal Pradesh.

Value Creation Story –
MAMTA

Strategic Objective:
Empowering Women by providing Livelihood support

Target Area:
Barmer, Rajasthan

Material Topics Addressed:
Skills & Livelihood

Alignment with SDG:


Key Risks:

Challenges: Limited income due to middlemen's commissions, Inconsistent work opportunities, lack of financial literacy insufficient earnings to support her family

Summary: Mamta, a 30-year-old resident of Chakdholka village in Barmer district, Rajasthan, resides with her husband Raju Ram, and their three children. With an annual family income of ₹ 2.70 lakh, Mamta's primary source of income initially came from her husband's daily wage labour in construction, supplemented by her earnings from applique and tailoring work, amounting to approximately ₹ 1.50 lakh per annum.

In 2022, Mamta connected with Desert Pastorale Producer Company Limited, formed under Handicraft Programme running under CSR initiatives of JSW Energy (Barmer) Limited. Joining the Saraswati Maa Group, comprising 22 women artisans, Mamta found a supportive community that motivated her. Through Desert Pastorale Producer Company Limited, Mamta received regular work opportunities, eliminating the dependency on local agents.

Additionally, she engaged in tailored skill development programmes and financial literacy training.

With consistent support and guidance, Mamta's income grew significantly. Her annual earnings increased from ₹ 20,000 to ₹ 1,50,000 and, empowered her financially. Mamta's enhanced purchasing power enabled her to invest in her children's education, household expenses, and even indulge in personal desires.

THROUGH DESERT PASTORALE PRODUCER COMPANY LIMITED, MAMTA RECEIVED REGULAR WORK OPPORTUNITIES, ELIMINATING THE DEPENDENCY ON LOCAL AGENTS. MAMTA'S ANNUAL EARNINGS HAVE INCREASED FROM ₹ 20,000 TO ₹ 1,50,000.

CORPORATE GOVERNANCE – FACILITATING SUSTAINABLE PERFORMANCE

JSW Energy's governance framework is anchored in robust leadership dedicated to fostering long-term value for all stakeholders. Supported by a resilient corporate policy framework and a stringent Code of Conduct, our business operations proceed seamlessly on a daily basis.

The Board at JSW Energy operates on the foundational principles of Accountability, Transparency, Integrity, Social Responsibility, Environmental Stewardship, and Regulatory Compliance. Comprising a diverse group of individuals possessing requisite skills and expertise, the Board is fully equipped to advance the Company's business in alignment with the ESG agenda.

The Board comprises 4 Executive Directors, 1 Non-executive Director, and 6 Independent Directors, including 1 woman Independent Director. It diligently oversees business progress, ensuring coherence with the Company's vision and strategic planning to achieve set objectives. Moreover, the Board prioritises transparency by considering stakeholder concerns in decision-making processes related to material issues and conducting due diligence for effective management.

The Board Committees are as follows:

Audit

Corporate Social Responsibility

Sustainability

Risk Management

Stakeholder Relationship

Compensation and Nomination & Remuneration

Project Review

The Sustainability Committee oversees the climate change agenda by assessing climate-related risks, along with managing other relevant material topics like water management and biodiversity. The committee chair evaluates progress against set targets and ensures that the Group adheres to the overarching sustainability vision while effectively managing high-priority material topics.

Risk Management

JSW Energy has a Board-approved risk management framework that aligns with the principles outlined by the COSO Framework. Recognising that enterprise risk management is an ongoing and evolving process, the organisation emphasises the importance of close monitoring by the Board.

The Risk Management Committee maintains regular communication with the Board of Directors and Plant Heads to ensure the effective implementation of the policy. Additionally, it proactively identifies new potential risks and establishes processes for timely mitigation of such risks.

Board of Directors → Chief Risk Officer / Risk Management Committee → Senior Management at Corporate → Plant Heads → Department Heads

Business Continuity Management

Business Continuity Management (BCM) is a comprehensive management process designed to identify potential threats to an organisation and assess the possible impacts on business operations in case those threats materialise. It provides a framework for enhancing organisational resilience and ensuring an effective response to safeguard the interests of key stakeholders, reputation, brand, and value-creating activities.

Three of our major plants – Barmer, Ratnagiri, and Vijayanagar – have been certified under ISO 22301 for Business Continuity Management Systems. The certification process for our fourth hydropower plant at Sholtu, Himachal Pradesh, is currently underway and expected to be completed by the end of Q1 FY 2025.

Structure of ISO 22301:2019 Standard

Plan	Do	Check	Act
Clause 4: Context of the Organisation **Clause 5:** Leadership **Clause 6:** Planning **Clause 7:** Support	**Clause 8:** Operation	**Clause 9:** Performance Evaluation	**Clause 10:** Improvement

Continuous Improvement

Components of Business Continuity Management Plan (BCMS)

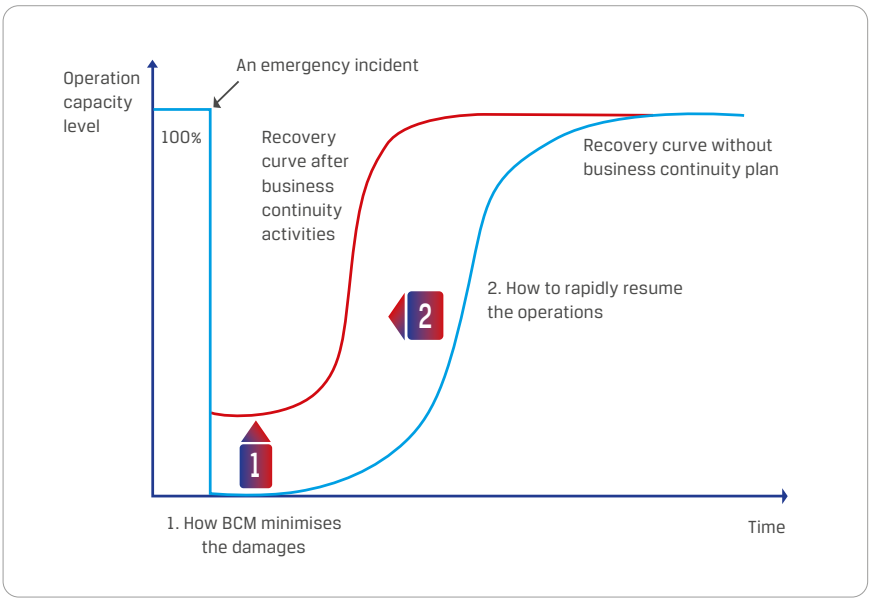
- A policy
- Skilled individuals with clearly defined roles and responsibilities
- Management processes relating to
  - Policy
  - Planning, Implementation and Operation
  - Performance Assessment
  - Management Review
  - Continual Improvement
- Documented resources aiding operational oversight and facilitating performance assessment
- Any BCM processes relevant to the organisation

Generator Hydro Plant

Benefits of BCMS

Implementing a Business Continuity Management System (BCMS) at JSW Energy ensures resilience during unforeseen disruptions. By proactively identifying risks, developing response plans, and maintaining critical functions, we safeguard operations, mitigate downtime, and protect stakeholder interests. BCMS fosters agility, allowing us to adapt swiftly to evolving challenges and maintain uninterrupted energy supply. This robust system enhances stakeholder confidence, strengthens regulatory compliance, and minimises financial losses. At JSW Energy, BCMS is more than a framework; it's our commitment to reliability, sustainability, and uninterrupted service delivery.

Benefits of a BCMS



This comprehensive approach addresses various perspectives:

- Business Perspective: Aligning with strategic objectives, BCMS provides a competitive edge, safeguards reputation, and enhances organisational resiliency.
- Financial Perspective: By reducing legal and financial risks, BCMS minimises direct and indirect costs associated with disruptions.
- Stakeholders Perspective: BCMS prioritises the protection of life, property, and the environment, meeting the expectations of stakeholders and instilling confidence in the organisation's capabilities.
- Internal Perspective: Enhancing operational effectiveness, BCMS proactively manages risks, addresses vulnerabilities, and maintains efficiency during disruptions.

Through BCMS, JSW Energy ensures preparedness, minimises impacts, and maintains its commitment to operational excellence and stakeholder trust.

Business Ethics

JSW Energy values organisational accountability, transparency, and integrity as crucial elements for sustained operational success. Our corporate governance framework is built on principles of value and trust, fostering growth opportunities for stakeholders. With a robust Code of Conduct in place, we meet the expectations of all stakeholders, including the Board of Directors, Senior Management, and employees. We maintain zero tolerance for unethical practices such as corruption and bribery. By promoting awareness and upholding ethical standards throughout our value chain, JSW Energy is committed to adopting best practices for sustainability and responsible business conduct.

Vigil Mechanism

The company prioritises fair and transparent practices in its daily operations, upholding the highest standards of professionalism, honesty, and integrity. At JSW Energy, ethical conduct is fundamental to decision-making processes. Our vigil mechanism encourages all employees and workers to report any irregularities

or serious misconduct that may affect the business or its reputation. We have established a structured process for reporting incidents of improper or unethical behaviour. Notably, during the reporting period, there were zero confirmed instances of corruption.

Prevention of Sexual Harassment (POSH)

JSW Energy has always believed in providing a safe and harassment-free workplace for each individual working in the Company. JSW Energy in line with the provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, has adopted a policy on the Prevention of Sexual Harassment and has constituted an Internal Complaints Committee to look into the grievances related to POSH. During the reporting year, zero complaints of sexual harassment were recorded.

Respecting Human Rights

At JSW Energy, Human Rights are ingrained as a fundamental value. We uphold the highest standards of human rights throughout our operations and value chain. Regular awareness sessions on Human Rights are conducted for all employees, associates, and workers across various forums and plant locations. We prioritise the well-being of our workers and contractors by providing shaded resting areas, drinking water, sanitation facilities, and adequate medical services, including an Occupational Health Centre within our premises.

Our commitment to Human Rights is further reflected in our policies on Human Rights, Labour Practices, and Employment Rights, which are readily accessible on our website. To ensure systematic management of Human Rights, we are in the process of engaging an external knowledge partner to conduct a comprehensive Risk Assessment and develop a Human Rights Management Plan in consultation with various plant-level teams. Additionally, formal Human Rights Training will be conducted across all locations.

As a Responsible Business Organisation, we are transitioning from a compliance-driven approach to a care-driven approach, especially concerning ESG requirements, including Human Rights. We maintain a zero-tolerance policy towards any breaches of conduct related to Human Rights or discrimination. This approach has resulted in stringent measures to eradicate child/bonded labour within our organisation and across our value chain partners.

During the reporting period, no instances of prejudice were recorded, and no operations were identified as posing a high risk of utilising forced or underage labour.

Human Rights Assessment

This year, JSW Energy completed comprehensive human rights due diligence at its Hydro-Sholtu and Vijayanagar locations. The draft report, prepared by our knowledge partner, covers human rights assessments at these plants, identifies associated risks, and proposes mitigation strategies. The report, currently under review and finalisation, encompasses key elements such as policy commitment to human rights, impacts, preventive and mitigative measures, tracking and monitoring actions, reporting and communication, and remedy and grievance mechanisms. The finalised report, expected in Q1 FY 2025, will guide the development of a Human Rights action plan for these sites. Following this, we will extend the Human Rights Due Diligence Assessment to our Barmer and Ratnagiri plants in the coming year.

25 %

Percentage of security personnel trained on human rights

Human Rights trainings were provided to Employees, workers and security personnel at Vijayanagar and Sholtu-Hydro plants through external knowledge partners. Human Rights interactions were also done with the nearby community for Human Rights Risk assessment. Similar external trainings & Risk assessment shall be done for all other JSW Energy plants in the upcoming year.

No incident or violations towards indigenous people was reported or received by the company.

Human Rights Training to Workers, Hydro Sholtu