TCFD ALIGNMENT

Introduction

The TCFD framework consists of four key areas: governance, strategy, risk management, and metrics and targets. It provides guidelines for organizations to assess and disclose climate-related risks and opportunities in a consistent and comparable manner. By following these guidelines, companies can better understand and communicate their climate-related impacts, ensuring greater accountability and transparency for investors and stakeholders.

JSW Energy is committed to addressing the risks and opportunities associated with climate change. We recognize that climate-related issues have the potential to significantly impact our business and financial performance. Therefore, we are adopting the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) to assess and disclose climate-related risks and opportunities. Further onto our journey to align with the TCFD recommendation, we are undertaking detailed studies to reexamine our risks and opportunities.

Governance

Board Oversight

In order to drive momentum and accountability, we have board level committees to assess and manage climate-related risks. All the sustainability achievements and initiatives are presented and discussed at the Board Level Sustainability Committee during the bi-annual gatherings. This collaborative approach is holistically streamlining the effective institutionalization of climate strategies across the organization.

Management Oversight

At the management level, the Executive Committee and corporate functions teams are responsible for closely reviewing and governing climate-related matters:

- Executive Committee: Climate change and sustainability KPIs and performance of the company are discussed with the Executive Committee during its monthly meetings.
- Corporate Functions Teams: Corporate risk, sustainability, and strategy are the three primary teams responsible for supporting the Executive Committee in climate-related matters. These teams interact with each site on a monthly basis and also interact with other cross-functional teams as and when needed.

Strategy

Our strategy also includes evaluating the potential transition and physical risks associated with climate change, such as extreme weather events and changes in water availability, to ensure the resilience of our operations.

We are utilizing internationally accepted scenarios from two primary sources:

- Intergovernmental Panel on Climate Change (IPCC) which provides pathways for assessing physical impacts of climate change from varying degrees of GHG emission concentration in the atmosphere
- International Energy Agency (IEA) which models implications of climate-related policies and technologies on energy systems globally

We will use the IPCC Representative Concentration Pathways RCP8.5 and RCP4.5 for assessing location-specific physical risks and IEA World Energy Outlook (WEO) 2020 Stated Policies Scenarios (STEPS) and Sustainable Development Scenario (SDS) for assessing transition risks.

Physical and transition climate change scenarios

1. Business-as-usual scenario

- **IPCC scenarios (Physical Risks)**

  RCP 8.5 scenario

  Extremely high emissions scenario with global mean temperature expected to rise by 3.7 degC (2.6 - 4.9 degC) by end of the century. The scenario assumes high dependence on fossil fuels and no policy-driven mitigation.

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

  Stated Policies scenario

  Incorporates existing and announced climate policies (till mid-2022) including Nationally Determined Contributions from governments across the world. The scenario provides a baseline against which additional actions are required to meet SDS climate goals.

2. Optimistic scenario

- **IPCC scenarios (Physical Risks)**

  RCP 4.5 scenario

  Intermediate emissions scenario with global mean temperature expected to rise by 1.8 degC (1.1 - 2.6 degC) by end of the century. The scenario considers increased use of renewable energy and strong policy driven mitigation.

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

  Sustainable Development scenario

  Provides an energy sector pathway which is consistent with meeting global net-zero CO2 emissions from the energy system as a whole by around 2070, universal access to energy and reduced air pollution.

These climate scenarios are viewed as tools that help us make informed business decisions while taking into consideration potential impact of climate risks. For identification and assessment of climate-related physical risks, location-specific climate profiles will be developed for each asset to determine climate change impacts in every region of our operations. These risks were assessed based on two parameters:

- Probability of occurrence – likelihood of occurrence of a given risk due to projected changes in climatic parameters at regional level
- Expected impact – extent of impact that JSW Energy is likely to witness from an identified risk (function of our climate resilience at plant/facility level)

Risks	Description
Physical risks Physical risks resulting from climate change can be event driven (acute) or longer-term shifts (chronic) in climate patterns.	**Chronic:** 1. Water unavailability leading to significant operational impacts to our plants located in regions with high water stress. 2. Disruption of operations due to extreme heat waves caused by the temperature change.
	Acute: Extreme climatic events like intense rainfalls, cyclones leading to flooding which may result in operational shutdowns and/or service disruptions, unstable raw material procurement.
	Mitigation Strategy: We are diversifying our operations across India and are committed to expand widely in RE which does not require any raw materials during the operational phase. All our plants are zero liquid discharge plants and we aim to maintain this status while reducing the specific fresh water consumption in the years ahead. We are also evaluating the modalities to improve the water conservation and build an additional storage facility to avoid any effect on the operations due to water scarcity. While these measures help us in increasing the resilience of our operations, we will work towards setting up the systems to monitor the weather patterns (especially rainfall patterns) to understand the likelihood of these risks occurring in the near term.
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:** Increasingly stricter environmental laws and regulations such as the Perform, Achieve, and Trade (PAT) mechanism, Carbon tax, Increased Coal Cess – altogether potentially increasing the cost of production and lower profit margins.
	Market: 1. Change in consumer preferences with increasing demand for renewable energy to substitute thermal energy. 2. Risks associated with the volatility of prices of coal as well as its quality.
	Technology: Financial non-viability of capital intensive low-carbon technologies and the associated challenges in adopting to these breakthrough technologies.
	Reputation: Adverse impacts of our business decisions on our social licence to operate which is intrinsically tied to our contributions towards the well-being of the wider community and environment affecting our standing with our investors as well as society at large.
	Mitigation Strategy: We are in the process of substituting the coal-based boilers at one of our location with the waste gases from our Group company, JSW Steel. This avoids the need for fossil fuel thereby reducing the policy and market risks. Our ICP of 12 USD/tCO2e of carbon will allow us to adopt a balanced view of the feasibility of any proposed low carbon in the near and medium term, ensuring that we continue in our low carbon journey without losing our competitive edge.
Opportunities	We see the increasing demand for renewable energy as an opportunity for JSW Energy alongside India's commitment to have 500 GW of fossil free energy by 2030. We are committed to expand only in the renewable space and by 2030, 85% of our power mix is expected to be from RE which is a significant increase from the current levels of 30%. Furthermore, increasing policy and regulatory push towards low carbon growth creates advantage for our ongoing expansion plans to have 20 GW by 2030. Our commitment to be a Net-Zero company by 2050 is further supported by our Science Based Targets (SBTi) taken for 2030. We are also working towards ultra low carbon technologies like green hydrogen and CCUS (carbon capture and utilisation and storage) that can have a positive impact in promoting the decarbonisation of other industries. While we recognise that not all of these measures are viable today, we are continuously monitoring the landscape to ensure that we do not miss the bus on any of these opportunities as and when they do turn the corner.

Risk Management

We will use the climate change risk assessment framework which has been used for identification and assessment of risks at two levels:

- Asset/plant level: Climate-related physical risks to be identified and assessed at asset/plant level. These risks are categorized into high, medium and low risk levels using a 3X3 risk matrix based on two parameters – probability of occurrence and expected impact of risks.

- Corporate level: Climate-related transition risks and opportunities arising due to changes in climate policies, market landscape and operating environment to be identified and assessed at the corporate level. Similar to physical risks, transition risks are also classified into high, medium and low risks based on the level of impact that these risks might have on our operations.

Key risks and opportunities identified at both asset/plant and corporate levels will be reviewed, monitored, and evaluated to develop risk mitigation strategies. Similar to risk identification, strategy formulation to address and manage identified climate-related risks and opportunities takes place at both corporate and asset/plant levels.

Metrics and Targets

We have established key performance indicators (KPIs) and targets to monitor our progress in managing climate-related risks and opportunities. These include metrics related to greenhouse gas emissions, energy consumption, and renewable energy capacity. We regularly track and report on these metrics, providing transparency to stakeholders on our performance.

Way Forward

As we embark on our TCFD journey, we remain committed to strengthening our climate-related disclosures and actions. We will continue to assess and disclose climate-related risks and opportunities, improve our risk management practices, set ambitious targets, and invest in low-carbon technologies. By doing so, we strive to create long-term value for our shareholders while contributing to a sustainable future.

Energy

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

Share of Renewable / Thermal

Renewable Capacity	Thermal Capacity
FY 2023	FY 2023
52%	48%
3,406 MW	3,158 MW

Clean Energy

One of the biggest trials the world is facing today is climate change and as a responsible corporate, JSW Energy has taken early action to contribute to the global agenda of climate action. JSW Energy, in its commitment towards Net Zero, has undertaken the target on increasing the share of renewable energy in its overall portfolio by 2030. This transition shall augment JSW Energy's contribution to meeting the nation's target towards decarbonisation. JSW Energy strives to pursue its economic and sustainability goals by undertaking conscious steps towards decarbonised and digitalised energy models, adopting principles of circularity in water and waste management.

The organisation has aligned its business model with the global UNSDG agenda and has further taken steps to strengthen its renewable energy portfolio.

Initiatives undertaken to increase the share of Renewable Energy

1993 MW Wind projects are under construction in Karnataka and Tamilnadu. 240 MW hydro project is under construction in Himachal Pradesh. JSW Energy has recently commissioned 225 MW Solar Plant near Vijayanagar, Karnataka. The company has completed the acquisition of Mytrah Energy which has renewable assets worth 1,753 MW in FY 2023. SECI-XII - 300 MW has been awarded recently. Thus, in FY 2023 we have added 2,005 MW of Renewable Energy and by the end of CY 2024, the organisation is expected to add another 2,506 MW of Renewables to it's present capacity of 6,564 MW.

The company has won bids for 3.4 GWh storage projects comprising of (i) Battery storage energy bid from Solar Energy Corporation of India (1 GWh / 500MW). (ii) Hydro Pumped Storage Project from Power Company of Karnataka limited for procurement of 2.4 GWh for a period of 40 years. Hence it is a pragmatic view that the organisation is strategizing to increase its renewable portfolio which is in line with its 2030 commitment of achieving 85% Renewable Energy portfolio amounting to 20 GW

Sustainable Financing Through Green Bonds

JSW Hydro Energy raised USD 707 million (₹5,163 crore) amount through issuance of Green Bonds in FY 2022. These green bonds have proven to be an effective financial instrument for the company, enabling them to secure investments for their renewable energy projects. Furthermore, JSW Hydro Energy is anticipated to continue issuing green bonds in the future, emphasizing their commitment to sustainable financing and the development of clean energy initiatives.

To ensure a consistent and standardized approach in its green bond issuances, JSW Hydro Energy has established a comprehensive Green Bond Framework. This framework serves as a robust methodology that applies to all future green bond instruments issued by the company. It provides clear guidelines and principles to ensure transparency, disclosure, and integrity in the development of a sustainable finance market.

The Green Bond Framework adopted by JSW Hydro Energy is aligned with the ICMA Green Bond Principles (GBP) of 2018. These principles are a set of voluntary guidelines that are widely recognized and respected in the sustainable finance industry. By adhering to the GBP, JSW Hydro Energy aims to promote responsible investment and support the growth of the clean energy sector.

The issuance of green bonds has proven to be an effective strategy for JSW Hydro Energy to attract investments for its clean energy projects. These funds play a crucial role in supporting the development and expansion of hydro-based power plants, which contribute to reducing carbon emissions and mitigating the impacts of climate change.

By leveraging the potential of green bonds and aligning with international standards, JSW Hydro Energy demonstrates its commitment to sustainable finance and environmental stewardship. The company's efforts in raising funds through green bonds contribute to the transition towards a greener and more sustainable energy future.

The Framework encompasses five fundamental pillars, which include the Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds,

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Reporting, and External Review. These pillars serve as the core elements that outline the principles and guidelines for JSW Hydro Energy's green bond initiatives. Each pillar plays a crucial role in ensuring transparency, accountability, and effective management of the funds raised through the issuance of green bonds.

The Framework is publicly available, and can be accessed here for further details.

Internal Carbon Pricing: Promoting Sustainability and Mitigating Climate Change Impacts

JSW Energy recognizes the urgent need to address climate change and its far-reaching consequences. As part of the organization's commitment to sustainability, it has implemented an Internal Carbon Pricing mechanism, which plays a vital role in the operations and decision-making processes. This approach aligns with the broader strategy to reduce greenhouse gas emissions, promote energy efficiency, and transition towards a low-carbon economy.

The development of Internal Carbon Pricing (ICP) mechanism involved adopting a widely recognized approach known as shadow pricing. This approach has gained prominence globally for determining carbon pricing and serves as the foundation for JSW Energy's ICP methodology. Through careful analysis, by utilizing data for Asian as well as other global companies, the organization has derived an ICP range of 10-12 USD per ton of CO_2e.

The adoption of a shadow pricing approach, combined with extensive evaluation of carbon prices worldwide, provides a robust foundation for the ICP framework. This range allows the company to incorporate the potential costs associated with carbon emissions into its decision-making processes, encouraging the adoption of cleaner technologies and practices across operations.

Using this approach, the company has initiated few small investment analysis of buying new technology equipment, Pumps & VFD's (variable feed drives) which helps to increase efficiency and results in lower emissions but is more costly than the traditional equipment. Based on the outcomes of the ROI analysis, using shadow pricing for ICP, JSW Energy has bought VFD's & other equipment at the thermal power plants.

By incorporating Internal Carbon Pricing, JSW Energy has achieved several key objectives. Firstly, it acts as an economic signal, incentivizing the teams to identify and implement emission reduction opportunities across operations. This helps optimize energy use, invest in cleaner technologies, and reduce the operational carbon footprint. Secondly, it facilitates informed decision-making by providing a comprehensive assessment of the financial implications associated with different emission scenarios and investment choices.

JSW Energy firmly believes that by embracing Internal Carbon Pricing, the organization is not only mitigating climate change risks but also fostering innovation, driving operational efficiencies, and contributing to the global transition to a sustainable, low-carbon future. Through this strategic approach, JSW Energy aims to demonstrate leadership in the energy sector and create long-term value for all the stakeholders while actively addressing the challenges posed by climate change.

Water

To develop and sustain life, it is essential to protect and replenish the drainage systems. Sustained, reliable and judicious access to water is essential for JSW Energy's kind of business where water finds its usage in cooling, ash disposal, heat removal in plant auxiliaries, and several other consumptive purposes such as fire-fighting and gardening.

JSW Energy understands the crucial need of managing water resources effectively both within and outside of its operational sites and therefore has devised a variety of strategies to maximise water usage efficiency across the organisation. The organization has established structured processes for identifying, managing, and mitigating water-related risks on business along with robust long-term watershed management strategies for host communities.

Few initiatives at JSW Energy as a water steward are listed below

- One of its plants, in Ratnagiri, has deployed rainwater harvesting systems to collect and store water in dams near Vinayakwadi township, which is almost of 35,000 cubic meters water storage capacity. This stored water is then used for plant operational processes and drinking purposes.
- At Vijayanagar, cooling water is recycled through the RO plant and re-used in the processes within the plant. Similarly, the clear water from the STP is re-used in the horticulture activities. Thus, overall around 11,37,923 litres of water has been treated and reused in the plant in FY 2023.
- At Barmer, the Indira Gandhi canal remains the potential water source and efforts were made to enhance the water monitoring system by installing a water meter close to the PT plant from where the water offtake for utilisation in the power production process is initiated. This installation eliminates all the approximate deductions for water loss (through evaporation, leakage etc.) thereby providing an improved and close to real water consumption values.

Water Stress

- Two thermal power plants of JSW Energy, namely at Vijayanagar (860 MW) and Barmer (1,080 MW) along with the Hydropower plant (1,391 MW) fall in high water stress area while the power plant at Ratnagiri (1,200 MW) falls in low water stress region. The solar power plant at Vijayanagar (225 MW) is also in the high water stress region.

Total water withdrawal at Barmer plant was 1,88,99,181 KL while water consumption was 1,80,21,676 KL. At Vijayanagar water withdrawal was 85,75,246 KL and consumption 81,30,738 KL. A total of 5,95,09,970 KL of water was discharge across all plants of JSW Energy, out of this 5,84,11,696 KL is sea water discharge at Ratnagiri plant.

Target

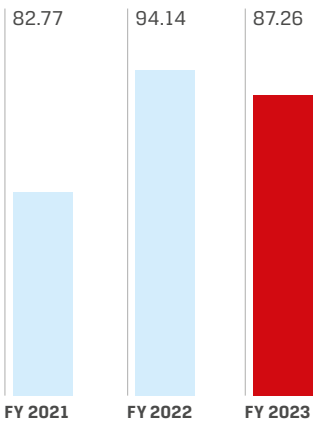
REDUCE OUR WATER CONSUMPTION PER UNIT OF ENERGY PRODUCED BY 50% BY 2030

Initiatives Undertaken for the progress

Water Withdrawal

FY 2021	FY 2022	FY 2023
Groundwater	**Groundwater**	**Groundwater**
0 KL	0 KL	28,017 KL
Surface water	**Surface water**	**Surface water**
2,36,88,280 KL	2,48,24,795 KL	2,88,27,036 KL
Third-party water	**Third-party water**	**Third-party water**
0 KL	0 KL	0 KL
Seawater	**Seawater**	**Seawater**
5,70,89,846 KL	6,53,25,454 KL	5,84,11,696 KL
Total	**Total**	**Total**
8,27,78,126 KL	9,41,88,905 KL	8,72,66,749* KL

Total Water Withdrawal
(in million kL)



Value Creation Story

Strategic Objective
Ensure optimum utilization of water received from MIDC and avoiding wastage.

Target Area
JSW Energy Ratnagiri Plant

Material Topic Addressed
Water and Effluent Management

Alignment with SDG

* Does not include water withdrawal in Solar Vijayanagar Plant as it was not metered.

Key Risks: Leakages across the pipeline which pumps the water to the plant

Challenges: Effective use of raw water at JSWEL Ratnagiri Complex

Summary: Quarterly walk throughs are arranged along this pipe line to inspect and arrest leakages. Flow meters are installed at various distribution point and consumption is monitored and recorded on daily basis. Sewage water is treated in STP and treated water is utilized for gardening. Effluent of Demineralize water treatment and Boiler water blowdown water is used as make up to cooling water system. From clarified water storage tank water is supplied to labour colony situated adjacent to plant. By arresting leakages and operating tank inlet valves at predetermined time, water consumption is reduced to 500 m^3 per day from 700 m^3 per day.

Rain water harvesting is done by construction of dam near vinayakwadi township. Water storage capacity of this dam is 35,000 m^3. Manual interventions are constructed at upstream side of dam to increase water hold up. Water is pumped to clarified water storage tank near plant from July to December from this facility. In FY 2023 about 3,50,000 m^3 water was pumped from rain water harvesting facility to plant for process and drinking water use.

Effluent Management

JSW Energy maintains a 'Zero Liquid Discharge Status' at all the plants. Through this, the systems are designed to internally manage the process wastewater by recycling and reusing, thereby eliminating the need to discharge the effluents outside the plant. The company's sustainability strategy aligns with this approach, ensuring wastewater is treated and recycled in the water use cycle or diverted for horticulture use. In FY 2023 JSW Energy recycled and reused 4,252.308 million liters of water, demonstrating its commitment to sustainability.

Targets

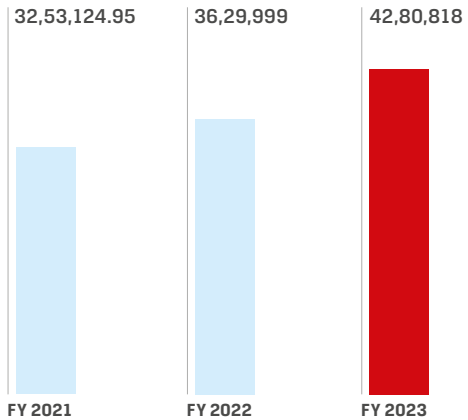
MAINTAINING A 'ZERO LIQUID DISCHARGE' FOR ALL OUR POWER PLANTS

Initiatives undertaken to maintain ZLD Status

Waste Water Recycled

FY 2021	FY 2022	FY 2023
32,53,124.95 KL	36,29,999 KL	42,80,818 KL

Waste Water Recycled
(kL)



Waste Management

Minimised environmental footprint remains overarching objective for all business decisions at JSW Energy. Being an energy provider with complex systems generating different waste streams both with hazardous and non-hazardous content, we take up sustainable waste management practices for safe disposal. JSW Energy recognizes this responsibility and adopts circularity principles to manage waste sustainably, including recycling rejected coal and hazardous waste, and using ash in cement manufacturing. Our total ash generation in FY 2023 was 13,89,038.26 MT and 100% was disposed with no environmental impact.

Targets

MAINTAIN 100% RECYCLING OF FLY ASH AND WASTES GENERATED FROM OUR OPERATIONS

Progress against the target

Waste Ash Recycled (%)

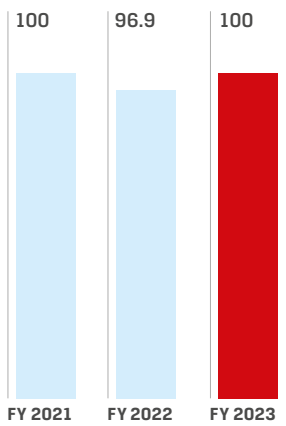
FY 2021	FY 2022	FY 2023
100	96.9	100

Waste Utilization (MT)

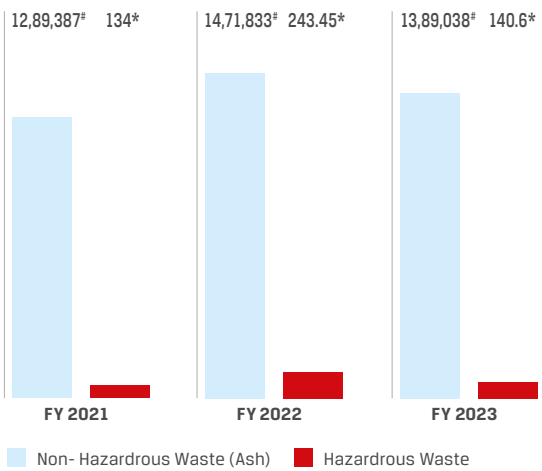
Non- Hazardrous Waste (Ash)

FY 2021	FY 2022	FY 2023
12,89,387	14,71,833	13,89,038#
(134)*	(243.45)*	(140.6)*

Waste Ash Recycled
(%)



Waste Utilization
(MT)



Ash Utilization was more than ash generation as previous years ash, stored in the ash pond, was also used up as per requirement.

* Hazardrous Waste

Waste management at JSW Energy is an important activity and all concerned teams ensure that all compliances related to the handling of waste material whether hazardous or non-hazardous are followed in a responsible manner. All power plant locations have tie-ups with authorized agencies for re-cycling / reuse / disposal of waste in a safe and sustainable manner.

- Hazardous waste: The power plants mainly have waste oil generated during the maintenance activities, which needs a safe disposal through authorized agencies and authorized recyclers. The plants have safe storage locations for used oil with all safety systems within the set-up. Small quantities of e-waste, battery waste, MS scrap waste, plastic waste is generated at most of the locations where these wastes are also handled & disposed in a responsible manner.
- Non-hazardous waste: Ash is produced by the thermal power plants. All thermal power plant locations have a structured set-up of ash collection, storage and disposal system. Traditionally, Ash silos of desired capacity are available in all the plants with provision of ash evacuation into an Ash Bulker at the bottom. All plants have tie-ups with Cement making & brick making companies who take away all the ash from the plants which is used as an input material for their product.

In FY 2023, 100% Ash utilization has been done at all plants of JSW Energy. It will not be out of place to mention that a 45,000 MT Ash Silo has been constructed at the JSW port adjacent to JSW Energy Power plant at Ratnagiri in FY 2023. The Silo and all its associated infrastructure has been completed and Ash is now being filled up in the Silo. The sea route shall be utilised to transport the Ash to all prospective buyers, both in the national markets as well as for international requirements to other countries.

Management through Principles of Circularity

JSW Energy has implemented several initiatives to reduce waste generation, such as optimizing processes, use of smart and latest technologies, innovative business plans for increasing the material efficiency, and streamlining lifecycle of materials across the organisation. This has proven effective in planning the management strategies right from collection, transport, treatment and disposal of wastes. The company ensures to adhere by circularity philosophy for minimizing the adverse effects on stakeholders, community and environment.

Air Emissions

Strategic Approach

Power generation from conventional energy sources remains the major emitter of greenhouse gases and other pollutants leading to global warming. Recognizing the need for energy producers to act with agility, JSW Energy has deployed state of art technologies for managing and maintaining the air quality which also forms a key focus area in sustainability plans of the company. To control the release of gaseous emissions resulting from the operations, the company has devised a range of mitigation strategies at the plant level. At our Barmer facility, the organization has recently replaced the old ESPs with new technology, state-of-the-Art, Electrostatic Precipitators (ESPs) to boost the plant efficiency in eliminating particulate matter from the flue gas stream. Similarly, at the Ratnagiri plant, Flue-gas desulfurization (FGD) has been installed to reduce Sulphur emissions from exhaust flue gases, which significantly curbs air pollution.

Targets

(BASE YEAR 2020 AND TARGET YEAR IS 2030)

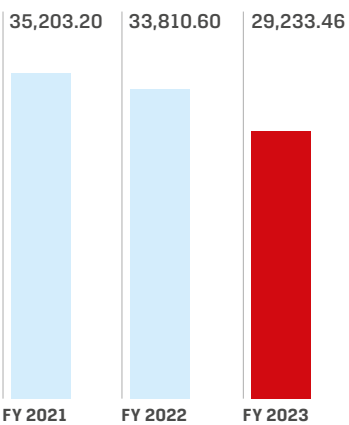
REDUCE THE DUST EMISSIONS, PER UNIT OF ENERGY PRODUCED, BY 2/3RD

REDUCE THE EMISSIONS OF OXIDES OF SULPHUR AND NITROGEN, PER UNIT OF ENERGY PRODUCED, BY 60%

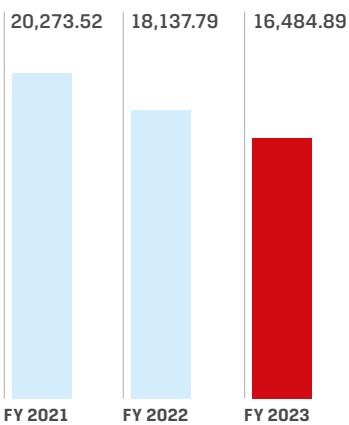
Progress against the target

FY 2021	FY 2022	FY 2023
Sp. PM	**Sp. PM**	**Sp. PM**
0.14 KG/MWH / 3,054.82 TONNES	0.14 KG/MWH / 3,124.68 TONNES	0.12 KG/MWH / 2,863.24 TONNES
Sp. Sox	**Sp. Sox**	**Sp. Sox**
1.65 KG/MWH / 35,203.20 TONNES	1.52 KG/MWH / 33,810.60 TONNES	1.25 KG/MWH / 29,233.46 TONNES
Sp. NOx	**Sp. NOx**	**Sp. NOx**
0.95 KG/MWH / 20,273.52 TONNES	0.81 KG/MWH / 18,137.79 TONNES	0.70 KG/MWH / 16,484.89 TONNES

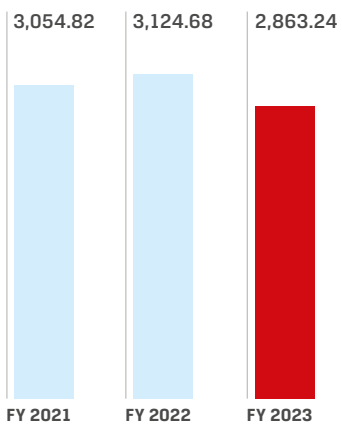
SOx (in Tonnes)
(MT)



NOx (in Tonnes)
(MT)



PM (in Tonnes)
(MT)



Biodiversity

JSW Energy prioritizes biodiversity preservation programmes for proactively identifying and addressing potential risks to prevent any net loss of biodiversity across all its operational sites. A significant amount of sustainability efforts are aimed at reducing the environmental impact of JSW Energy's business operations. The company has been actively involved in several ecological conservation programs at our Ratnagiri and Barmer plants, which include a range of plantation activities. The biodiversity protection initiatives are designed to maintain the ecological balance of host communities.

The organization has been undertaking many bio-diversity activities like plantations all- round the year, preservation / restoration of ponds & greenery, drinking water spots for wildlife in areas surrounding our operational plant. Thus, in order to assess the result / impact of these activities as well as further plan for biodiversity management in the area, JSW Energy has also undertaken a detailed seasonal ecosystem study at its Barmer plant during the reporting period to understand the patterns across all 4 seasons. JSW Energy understands the impacts its operations may create on the external environment and the surrounding biodiversity. In order to minimize the negative impacts, the organisation has initiated Biodiversity Assessments across 5 of its operating/project sites. These assessments shall augment the establishment and implementation of a biodiversity management plan which shall lead the organisation towards achieving its target of "No Net Loss to Biodiversity" by 2030.

Target

ACHIEVE A 'NO NET LOSSES OF BIODIVERSITY AT ALL OUR OPERATING SITES

Initiatives undertaken to conserve and protect biodiversity around operating sites

FY 2021	FY 2022	FY 2023
Number of saplings planted	Number of saplings planted	Number of saplings planted
10,123	37,196	33,719

Value Creation Story

Strategic Objective

Biodiversity conservation is the protection and management of biodiversity to obtain resources for sustainable development. JSW Energy had 3 key strategic objectives:

- To preserve the diversity of species.
- Sustainable utilization of species and ecosystem.
- To maintain life-supporting systems and essential ecological processes.

Target Area

Environment and Areas surrounding JSW Energy Barmer Plant

Material Topic Addressed

Biodiversity Preservation

Alignment with SDG

Key Risks: Decline of forest cover, loss of species, temperature & moisture regulation, decline in animal habitat

Challenges Overcome: Desert area around the plant with water scarcity

Summary: JSW Energy (Barmer) Ltd has tied up with CII for securing and monitoring eco system developed in the plant and nearby area in line with the TNFD framework. In addition, the company has executed extensive plantation drive in and around the plant. In this financial year, 5,250 saplings have been planted in the plant premises.

JSW Energy (Barmer) Ltd had developed the green belt in the desert area, which boosts to sustainable improvements in bio diversity objectives. The organization has 2 reservoirs which help any birds and species to migrate here.

In addition, the company also fixed water points at many places across its plant, which also play major role in protecting ecosystem. Though the water is pumped from the IGNP canal 184 KMs away from the plant, JSW Energy has meticulously developed green belt around 132 acres which includes the following varieties of plants and trees.

TREES

Neem, Sesame

FLOWERS

Kaner and Tikoma and ornamental types

FRUITS

Mango, Banana, Orange, sweet lemon, Guava & Pomegranate

LEAF PLANTS

Olive

OTHERS

Amla, Ber, Dates, Sugarcane