

The Sustainability Vision of JSW Group

"It is our vision here at JSW that we are able, both now and in the future, to demonstrably contribute in a socially, ethically and environmentally-responsible way to the development of a society where the needs of all are met, and to do so in a manner that does not compromise the ability of those that come after us to meet the needs of their own, future generations."

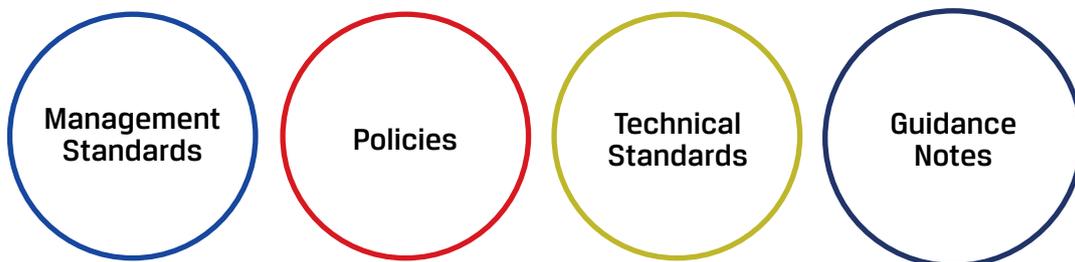
Our sustainable business strategy encompasses three major aspects – Environment Protection, Social Development, and People & Governance. These three categories encompass our 17 focus areas with relevant policies. JSW Energy's commitment towards a sustainable future is demonstrated by our policies and framework that have been carefully formulated keeping the best interests of our stakeholders in mind.

Our Commitment towards Sustainability

At JSW Energy, we are committed to transforming our sustainability vision into reality. The commitment can, and will, be cascaded down throughout all levels of the JSW Group and across our supply chains as part of our Sustainability Strategy, providing the impetus to create, implement and then maintain the systems and structures that will be needed, not only to deliver on our Sustainability Strategy in the short-term, but to deeply embed it into our long-term operations.

Our Sustainability Framework

At JSW, our well-established sustainability framework implied across the Group is the driving force behind the long-term viability of our sustainable strategy. This approach continuously enables us to ensure that the important elements of our strategy along with the key sustainability issues faced by our sites and companies are managed consistently with the utmost efficiency.



Read more about our Sustainability Framework in the Sustainability section of Company's Website



Our sustainable business strategies are aligned with the Sustainable Development Goals aligned by the UN. The UN SDG is a blueprint for achieving a sustainable world. We have adopted the UN SDG framework to enhance the long-term value that we create for our stakeholders.

ENVIRONMENT PROTECTION



SOCIAL DEVELOPMENT



PEOPLE & GOVERNANCE



OUR 17 FOCUS AREAS OF SUSTAINABILITY

Climate Change

Energy

Resources

Water Resources

Waste

Wastewater

Air Emissions

Biodiversity

Sustainable Mining

Local Considerations

Indigenous People

Cultural heritage

Social Sustainability

Supply Chain Sustainability

Employee Wellbeing

Human Rights

Business Ethics

Recognition

JSW Energy is a constituent in the 'FTSE4Good Index Series' of FTSE Russell, which is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance practices.

Our Sustainability Strategy

LEADERSHIP



Throughout our organisation, we provide our leaders with the skills and knowledge that will systematically enable them to oversee the implementation of our sustainability strategy and then ensure that it remains operational and effective.

STAKEHOLDER ENGAGEMENT



We readily recognise that while we have within our business a wealth of knowledge regarding sustainability, we do not know everything. Hence, each part of our business will be required to regularly identify and then engage with a wide range of people and organisations who have an interest in our activities – our stakeholders. The aim is to gain an understanding of the varied needs and expectations that our stakeholders may have from us and then accordingly build our strategy that successfully fulfils them.

COMMUNICATION



Frequent and effective communication, both within our business and to our stakeholders, is seen as critical to ensure that everyone understands our Vision, our Strategy, and their role in making these things happen. Within our strategy, we will define how communication is to be managed from site level up to Group level.

Additionally, we will also establish an informative and accessible platform on the internet through which all elements of our Strategy, our Policies in relation to various sustainability issues, our performance, and our ongoing commitment to our Vision can be accessed.



The broad range of issues covered by our sustainability strategy may not apply to every one of our sites; besides, the importance of a subject to one site may be different for another based on the nature of the business, where it is located, and the specific concerns of local stakeholders, amongst others.

In any case, each of our sites will be required to gain a thorough understanding of which and to what extent a particular sustainability issue affects them. This will guide each site to develop an approach to managing those relevant issues.

Once each site understands the issues that affect them, they will be required to plan their activities in such a way as to deliver the specific aims of our business in relation to those issues.

In addition to identifying the key issues for each site and deciding how best to manage them, our strategy will also require our sites to explore all the potential opportunities to improve. That improvement may come in a variety of forms such as improving efficiencies or reducing wastes; it may also be improvements in how we operate, in our processes; it could be improvements in our products, or in how we work with our suppliers. We will make sure that our mechanisms for improvement link back to either the 'needs of all', one of our three pillars of responsibility: Social, Ethical or Environmental, or to our commitments to future generations.

We, at JSW, have recognised that none of our efforts with regards to planning and improving what we do will count for anything if we are not able to demonstrate them. That is why, our Strategy also places immense emphasis on identifying, from site to Group, the key performance measures through which we, and our stakeholders, can monitor our progress.

Sharing information on our performance, either at a local site level or using international standards such as the Global Reporting Initiative (GRI), is seen as key in fulfilling our commitment to 'demonstrably contribute'. Openness to all our stakeholders is regarded critical to us, for only through such openness are we able to establish a real trust that what we are doing with regards to our Sustainability Strategy can, and will, deliver the Vision we have.

Environment Protection

At JSW Energy, we recognise our responsibility towards climate change and environment conservation. As a company in energy business, we understand the impact of our operations on the environment and climate, and we consistently focus on improving the quality of ecology by minimising any adverse environmental impact of our operations.

Our activities result in thermal power generation of greenhouse gases that are emitted into the atmosphere. While we endeavour to minimise these emissions and work within the relevant regulatory frameworks relating to carbon management and climate change, we also recognise that we have a moral, social, and economic need to do much more. We aim to gain a comprehensive understanding of the size and nature of our carbon footprint. We do this by undertaking assessment of the carbon footprints across all our plant locations. The assessment is also carried on an annual basis to understand how we are progressing. All our plants are committed to function in a manner that ensures utmost energy efficiency and compliance with applicable legal and statutory requirements on energy management. Our efforts at enhancing the reliability and efficiency of plant operations are guided by energy conservation, optimal resource utilisation, and reduced environmental impacts. Many of our sites operate in a region that are classified under the 'water-stressed' areas. Our goal is to minimise the use of water. We do this by monitoring the volumes of water we are consuming on regular basis to see how we are progressing. We also constantly explore alternate sources of water, which can meet the water demand at our sites. Furthermore, our endeavours are also directed towards preserving and restoring the biodiversity that is impacted due to our operations. We take concerted efforts towards ecological development through many of our environment centric activities.

At JSWEL, we recognise that the intensity of climate change amounts to the classic definition of risk. The erosion of economic value already caused by 100-year floods, droughts, and storms in just the last few years tops hundreds of billions of dollars, and the toll is rising as food security, health and livelihoods are affected. Stakeholders are no longer waiting on national governments to take concerted action. Instead, companies, investors, policymakers, and other concerned institutions are grouping together to determine meaningful ways to address climate change risk. As a long term power producer, we perceive climate change risk a central focus of our engagement with our clients, companies in our investment portfolios, policymakers, employees, and our broader communities.

Given the fact that nearly half of all the carbon now collected in our atmosphere was generated over just the last 30 years, it is our generation's responsibility to solve the problem now, and not leave it to our children and grandchildren to face the consequences. We are therefore committed to working with all of our stakeholders to create better ways of measuring and managing climate change risk. The most fundamental way we are contributing is by undergoing a transformation to usher in all new energy supply only based on renewables. Eventually, our renewables base should dwarf our thermal sources, so much that they become dispensable.

We also realise that renewable energy is the crux of power sector's future. The demand of power and energy in India is rapidly increasing. While we are seeking options to meet the increasing demand, at the same time we are carefully exploring opportunities in low cost and environmentally friendly sources. Therefore, we envision green energy future through our efforts to reduce our carbon footprint by scaling up in the renewable energy sector.

During FY2020, no environment related fines or penalties were paid.

Performance Summary

	Unit	FY2020	FY2019
Total Carbon Emissions	tCo2/MWh	0.76*	0.78
Total Renewable Generation Output	MU	5,966	5,208
Total generation Output	MU	21,252	22,088
Total Water Consumed	Million KL	23.36	31.88

* Solar power generation not considered in calculation

* Reduction in tCo2/MWh achieved mainly due to higher generation at Hydro power plants as compared to FY18-19

Key Initiatives

During FY2020, we have taken several notable initiatives across our plants to achieve the objectives of a sustainable business.



Relevant JSW Energy's Policies

- Policy on Climate Change
- Policy on Energy
- Policy on Raw Material Consumption
- Policy on Water Resource Management
- Policy on Waste Water
- Policy on Waste Management
- Policy on Air Emissions Management
- Policy on Biodiversity
- Policy on Local Considerations

For details on each policy, visit our website:

<https://www.jsw.in/investors/sustainability/policies>

Water Conservation

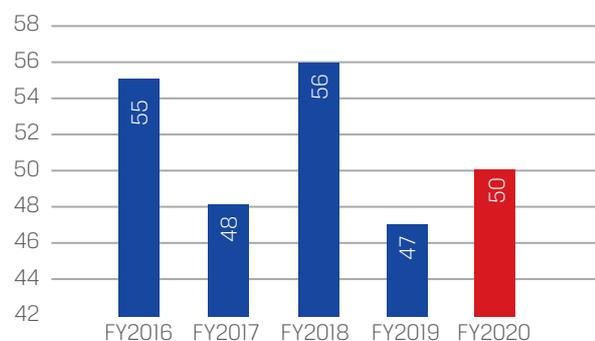
Key Efforts	Result and Progress
Introduction of specialised polymer at cooling tower side stream filter (SSF) inlet	Improved NTU levels and reduction in the cooling water blow down
Replacement of existing membranes with Anti-foulant type	Improved RO production
Introduction of oxidising biocide and high soluble liquid-based chemical in pre-treatment stage	Reduced low solid waste generation, material handling cost and RO water Generation cost
Construction and restoration of traditional water harvesting structures	Helps to save water

Waste Management

Key Efforts	Result and Progress
Allocation of proper area for various scrap items	Reconditioned scrap yard enables easy access of materials and enhances workplace quality

Energy Conservation

Waste Oil Generated (kL)





Key Efforts	Result and Progress
Development of new O2 trim curve	Avoids high excess air admission in continuous load variation units and regulates air flow
Installation of VFD (Variable feed drive)	Reduced power consumption of CEP-1 from an average of 345kwh to an average of 285Kwh for an 80% of unit full load capacity
Installation of air fan suction chamber with openings provided below suction chamber	Reduction in power consumption by 270 kW, which has saved ₹33.6 lakh per annum per unit
Construction and restoration of traditional water harvesting structures	Helps to save water

Environment & Emissions Management

Key Efforts	Result and Progress
4,000 saplings of various species like Devdaar, Chilgoza, Khnor, Silver Oak, Wild Apricot, and Weeping willow, amongst other were planted in Kinnaur	Facilitates and enables afforestation and encourages biodiversity
Drinking water scheme initiated in the Jani village	Benefiting a population of 750 people

JSW Energy - Emissions in tCO2

	FY 2019-20	FY 2018-19
Scope - 1*	17200521	18529349
Scope - 2	36117	37428
Scope - 3	6115.1	5029
Inbound Logistics (Rail)	5403	4215
Employee Commute (Road)	712.1	814

Internal Carbon Pricing

We have initiated the process to set our Internal Carbon Pricing (ICP). We shall review and compile the existing carbon pricing based on available regulations and trends, sectoral movements (low carbon transition vision, sectoral roadmaps, and decarbonisation, amongst others), anticipated future regulation, and future projections for carbon pricing. In this process, we shall also review our peers. To start with, we are studying both the options to set an implicit carbon pricing and shadow pricing approach. However, we would be able to decide and conclude a mechanism during the next fiscal (FY2021) for the use of all our investment decisions. We plan to evaluate both the scenarios, that is, i) India National Targets, and ii) Paris Agreements (both 1.5 and 2 degree scenarios) while setting the ICP with an objective that JSW Energy makes a shift towards low carbon investments.

Rainwater Harvesting

At our Ratnagiri plant, we have constructed two check dams, which allow us to store run-off water during every monsoon season. This water, through storage and pumping, is effectively used in the township and at the plant for suitable purposes. The system results in a lower consumption of the municipal water, every year. At our Barmer plant, which is a water deficit location, the rain run-off water is collected through surface drains into ponds built for this purpose and diverted to CT basin as make-up water. At times, this water is used for horticulture purposes.

Biodiversity Conservation

JSW Energy aims to achieve "no net loss" biodiversity target by year 2030.

At our Ratnagiri plant, we take considerable effort for biodiversity conservation. Following efforts have been made for this over the last few years:

- Transformation of rocky barren land into mathematical models of high density of mango, casuarina, and indigenous species (2,500 Nos/Hec)

- Generation of aesthetic evergreen localise hardy species with the characteristic of absorbing pollutants with the help of broad thick leaves with strong ventilation, and borne on short and strong petioles.
- Three-storey plantation with the upper storey comprising of large shade-providing trees. While middle storey encompass small trees and lower storey comprise of ground cover.
- Production of commercial export quality mangoes.
- Conservation of 60 acres of biodiversity park in and around plant against fire and physical damage by people.
- Maintenance of plantation with more than 90% survival rate under the supervision of qualified and experience supervisors.
- Scientific management of solid and liquid waste for nutritional use in tree plantation.
- Installation of drip system, diffusor system and mulching practices for entire plantation.
- Construction of Contour designs, dry masonry, and lawn plantation for preventing soil erosion and detoxification of contaminated soils.
- Plantation for creation of physical and visual barriers between the vehicular highway and the residential zone.

At our Barmer plant, we have undertaken ecological conservation initiatives in the Thar desert with an aim to address the natural resources conservation to create a congenial rural-wildlife habitat and prepare for likely climate change impact in future.

- Soil conservation by reducing wind and water erosion
- Revival of traditional RWH common assets like Nadi (rivulet) and Beri (tributary)
- Conservation of indigenous fodder grass and tree species
- On farm support for water harvesting
- Goat breed improvement
- Support for wildlife protection by way of waterhole development, rescue helpline for wildlife in distress, and monitoring support and awareness



Social Development

We place social development and community involvement at the centre of our business objectives. We recognise social development as the improvement in the quality of life of a population. We believe that through contribution towards social development and enhanced community involvement, we can help to create employment, introduce, and expand education and skills development programmes, provide, and promote community health services and initiatives, and preserve local culture and arts. Such contributions create the broad community benefits on which long-term sustainable development depends.

At JSW Energy, we fully understand and embrace our obligations to enhance the value of our communities through the provision of support, knowledge, resources, and expertise. In addition to maintaining our social development and community involvement activities, we endeavour to gain a holistic understanding of the communities of which we are part. We aim to understand the impacts of our business activities on them and identify ways to mitigate any adverse impact in the best possible way. To do this, we extensively engage and interact with local stakeholders to enhance our understanding of key community needs, matters and concerns. We especially focus on issues relating to women, the socially deprived, vulnerable and the marginalised. Furthermore, we curate social investment and development programmes for all our plant locations that target the priority areas, which require attention. Also, we monitor our community involvement activities and their impacts on social development on a regular basis to see how we are progressing.

We are committed to protecting and supporting Indigenous Peoples, also known as First Peoples, and managing sympathetically any resettlement activities that we are unable to avoid. We undertake assessment at all our plant sites to identify any historical or current instances where our activities directly or indirectly impact upon Indigenous Peoples. We aim to minimise any disruption to livelihoods, ensuring that we fully understand and respect the rights, interests, and perspectives of First Peoples. Our commitment also extends towards the protection and enhancement of our cultural heritage. To this end, we have adopted several initiatives that helps us preserve the national heritage.

Our goal is to end poverty and hunger, achieve food security, improve nutrition, and promote sustainable agriculture. We aim to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Performance Summary

	Unit	FY2020
Total CSR Expenditure	₹Crore	16.75
Investment in Communities	₹Lakh	26.00
Investment in Education	₹Lakh	197.50
Investment in Rural Development	₹Lakh	72.85

Relevant JSW Energy's Policies

- Policy on Social Development and Community Involvement
- Indigenous Peoples and Resettlement Policy
- Cultural Heritage Policy
- Policy to Make Our World a Better Place

For details on each policy, visit our website:

<https://www.jsw.in/investors/sustainability/policies>

Key Initiatives

During FY2020, we have taken several notable initiatives across our plants to achieve the objectives of social development.



Health, Nutrition and Sanitation

- Several employees and their families volunteered and helped in sewing of nearly 1,000 face masks. The face masks were distributed among the plant associates for their health and safety against the Covid-19 pandemic.
- Health check-up and awareness programs were conducted for SHGs of our handloom training centres.

Education, Awareness and Skill Development

- Created awareness of Central and State Government Schemes in the community. This was achieved in partnership with M/S Haqdarshak Empowerment Solution Private Limited. We collected 5,171 applications from eight Gram Panchayats linking to various schemes by the Central and State Government. The awareness program benefitted 3,094 people recording an amount of ₹1.39 Crore
- Established digital learning programs in 20 schools. The program encompasses necessary requirements such as hardware material like projector, white board, computer, UPS, cabinet, speaker, and software material in Hindi and English medium covering the topics of Himachal Pradesh Board and CBSE board. The program is expected to 2,426 students at these schools. Proper training was given to the teachers by experts.

Agricultural Development

- Trained farmers for various cost-effective new techniques to promote multi cropping systems. We also provided drip irrigation facilities to all eight shade net houses and fencing wire and created awareness among the farmers through exposure visits at KKV Baramati and Satara districts and demonstrations plots.

Women Empowerment

- To enhance the economic conditions of women and empower them, we have promoted home-based work models such as coconut shell craft, stitching bags, silk thread jewellery. We have engaged nearly 67 women in this activity.
- Ten handloom training centres at various locations were opened under our theme CHARKHA in which a total of 100 women were provided training on handloom. These women prepare handloom products and have generated income to the tune of ₹1.64 lakh.

Preserving National Heritage

- Our flagship program, CHARKHA intends to empower women through making them self-reliant and conserving traditional cultural heritage of handloom of the Kinnaur District.

Sports Development

- Organised inter-village kabaddi tournament at Kodalu Village.
- With the initiative of JSW Sports Academy, we organised Maharashtra State Level Shitoryu Karate – DO Championship at Alibag Raigad in which 16 students of Jaigad High school participated.
- Organised Konkan Kinara Cross Country at our Ratnagiri location with 10 Km, 5 Km, 3 Km for specific participants and a 4 Km "DREAM RUN" open for participants above 25 years of age. More than 1500 runners took part in the competition.
- Two boxing rings have been installed where regular training sessions are conducted for the trainees.
- Under our Flagship Program SHIKHAR, total 106 boxers were trained through 7 training centres by professional coaches. Protein rich diets were also distributed to trainees during training.

Rural Development

- Installation of 68 handpumps covering around ten Gram Panchayats in Barmer
- Provision of water supply pipeline for safe drinking water purposes; construction of overhead tank with a capacity of 3.5 lakh litre to supply water to 497 households across four villages - Bhadresh Gandhav, Bhadresh Punasia, Kamoipura, and Ishwarpura.
- Water pipeline and water facility for Girl's Toilet at a Government School, Rajapura Village, Sandur Taluk. The initiative benefitted around 150 Girl students at the school.

Disaster Management

- With two National Disaster Response Force (NDRF) teams deployed to the area, team members of JSW Energy were amongst the first responders to join the rescue efforts for a flood-like situation in Tiware Dam in Chiplun, spending close to two days at the site to ensure rehabilitation of the area and assist in delivering critical assistance to the community that was directly affected by the disaster.

People & Governance

We are an employee driven company. Our goal is to create a congenial workplace with a culture that motivates our human capital to perform with precision and productivity. Through their shared values, skills and competencies, our employees enable JSW Energy to create long-term value for our shareholders. Our aim is to become the employer of choice. We, therefore, consider it fundamentally important to create an engaging and supportive environment where people want to work and are willing to contribute towards the organisational objectives.

As a leading company, we have a moral obligation to do all that we can to both actively involve itself in the protection and enhancement of human rights in areas that are within our direct control, and to work with others to protect each and every individual's rights and freedom. We understand that every individual brings a different and unique set of perspectives and capabilities to our team and JSW Energy is fully committed to employing people solely on the basis of their ability to do the job, prohibiting any discrimination based on race, colour, age, gender, sexual orientation, gender identity and expression, ethnicity, religion, disability, family status, and social origin.

We have always recognised it as our moral obligation to do all that we can to operate our business with the highest standards of personal and professional integrity, honesty, and transparency, recognising the intrinsic benefits that good business ethics and governance provide. We continue to assess and review of our current labour practices with

regard to how well we are safeguarding employment rights. We ensure that our employees conduct themselves in accordance with the highest standards of honesty, integrity and fairness, exercising utmost good faith, judgement and due care in the performance of their duties.

We also place a lot of emphasis on ensuring that our workplace is safe and healthy for our employees. Striving for Safety Excellence is a critical part of the work culture across all the JSW Energy plants. We give paramount importance to occupational health and safety of our workforce. Today, we have a safety organisation structure that is supported by well-defined safety systems and efficient safety training protocols.

We take concerted efforts in ensuring the well-being of our employees. We continuously develop and deploy strategic training programs along with other initiatives that are directed towards enhancing their productivity levels while keeping them motivated through various engagement activities.

Performance Summary

	Unit	FY2020	FY2019
Total Employee Strength	No.	1,677	1,807
Total Training Manhours	Hours	49,272	42,600
Women Employees	No.	75	38
Attrition Rate	%	2.99	2.43

Relevant JSW Energy's Policies

- Policy on Human Rights
- Policy on Labour Practices and Employment Rights
- Policy on Business Conduct

For details on each policy, visit our website:

<https://www.jsw.in/investors/sustainability/policies>

Key Initiatives

During FY2020, we have taken several notable initiatives across our plants to achieve the objectives of being the employer of choice.



Employee Engagement

- Organised employee engagement and team building activity 'Shramdaan' to bring all the employees on a common platform towards a significant cause where lemon and neem plantation was carried out by the employees.
- Organised sports tournament 'Jaivinayak Trophy' for our employees with their families. This help us to create social harmony and sportsmanship spirit among the employees.

Training and Development

- Provided training on different types of Safety PPEs and Emergency Handling Equipment. After every induction training, the employee need to visit the Gadget Centre for physical understandings of PPEs.

Reward & Recognition

- The deserving paramedical staffs of the plant were rewarded and appreciated for their dedication and selfless act of service during the Covid-19 pandemic. The paramedical staff is working around the clock, not only against Covid-19, but are also ensuring that other healthcare operations of the OHC are running smoothly.

Pandemic Measures for Workplace Safety

- Face Mask and Temperature Monitoring of all the employees at the plant entrances on daily basis is made compulsory.
- Disinfecting the surfaces that are prone to contact such as door handle and floor using silver nitrate and hydrogen peroxide.
- Employees Biometric attendance was disabled and updated with the Facial recognition to avoid surface contacts.
- Social distancing and sanitisation were maintained across all our work plants.
- As per the government guidelines, quarantining of employees and their family was ensured at designated places.
- Awareness sessions are conducted to all the employees on Pandemic by using posters and online class.
- Telephonic consultations and counselling were done to help people to overcome anxiety due to their illness (common respiratory infections) during the lock down period.

