



Intellectual Capital



JSW Energy pursues innovation as one of its main pillars for successfully facing the future energy scenario, promoting energy efficiency, decarbonisation and the electrification of the economy. Investment in our intellectual capital will be a vital enabler in our journey towards becoming a net zero company by 2050.

We are one of India's leading private sector energy companies making consistent enhancements to our ongoing operations. Technology and a culture of continuous improvement are our key enablers towards achieving our strategic goals of industry and cost leadership.

Our intellectual capital composes of intangible, knowledge-based assets, which are a strategic element of the Company. This includes our adaption to newer technologies, exploring digitalisation in its many forms for efficiency and development of new products and services. This also includes disruptive technologies and business models that enable the Company to transition towards becoming a modern and innovative renewable power company.

During the year, we onboarded BCG's expert team to drive the digitalisation process across existing thermal business and the renewable vertical. The BCG team is assisting the Company in analysing the organisations' requirements, existing resources and the ability to scale to recommend the right digital processes. The team is also working on the experience transformation guideposts that can help the business effectively use digital technology. This also includes the tools and platforms for optimum utilisation, and help in moving towards automation at all levels.

During our journey, we deployed few digital projects covering our renewable and thermal business, which have already started yielding results for business process automation. We have conceptualised state-of-the-art technology enabled "integrated digital cockpit" for the renewable vertical at Hyderabad, for the thermal plant at Vijayanagar, and for Hydro project at Dehli to cater to the current and future digitalisation demands, as we move forward.

Technology enabled culture with continuous improvement are the key elements to achieve the strategic goals of industry leadership, improve speed and efficiency, increase production, decrease costs, and provide a better customer experience. We will continue to enhance our production processes, cost competitiveness, and environmental performance with highest safety standard through capability building and collaboration with technology and research partners. Amidst changing customer needs, with renewables gaining pace and increasing regulatory risks, we strive to innovate and adapt to change continuously.

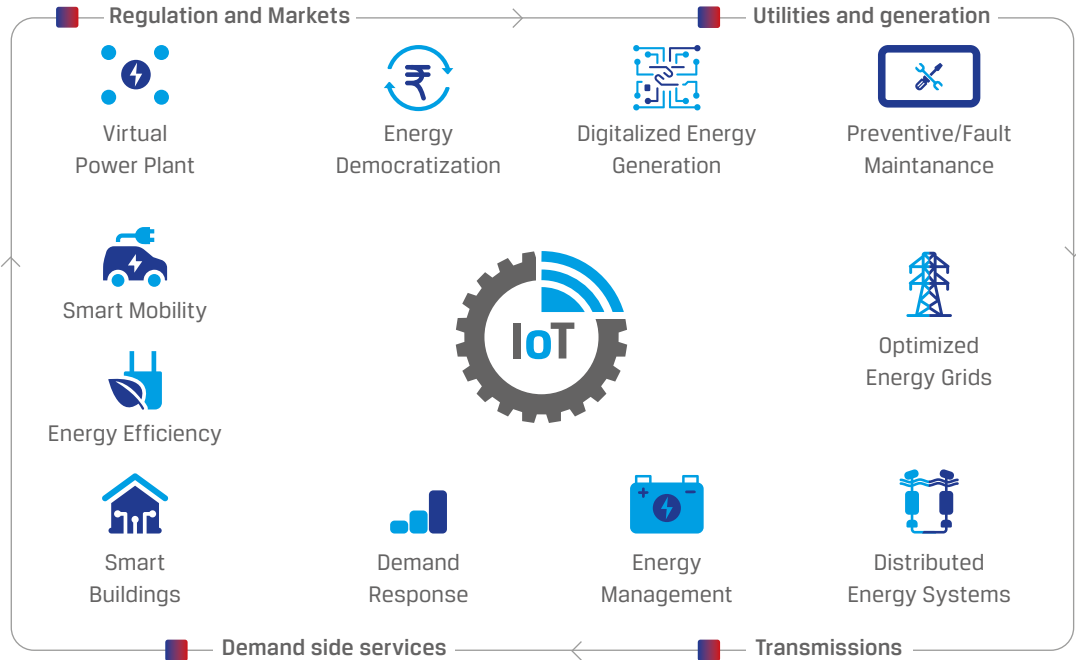
Key Initiatives in FY 2023

During FY 2023, we strengthened our processes with integration between OT & IT systems done as per the ISA/IEC 62443 standards, duly complying with the Ministry of Power guidelines and thereby we got certified with ISO 27001:2013 for JSW Energy business function.

We are moving at a fast pace in adopting the industry's best technology and practices in the IT & OT function area. This is aimed at having better and effective utilisation of the plant parameters on the IT network for effective and timely decision making by the respective process owners who have access to such data on a real-time basis on their handheld devices. As we move forward, our journey will continue to focus on IOT 4.0 technology readiness, compatibility, complexity, executive management support, firm size, regulatory support and security concerns.



Better local Outcomes



On the digitalisation front, we focused more on understanding the complete processes at plant levels and also did consolidation of the set of activities being handled in different mode. This helped the team understand the potential improvement expected to deliver post the implementation of activities, and accordingly, targeted the immediate result-oriented projects.

We have taken up the implementation of two projects comprising of Integrated Supply Chain Management (i.e., iSCM) for the renewable portfolio which shall be utilised for complete sourcing of materials to the installation and commissioning of assets at project site level.

The second project was related to Coal Value in Use (i.e. Coal-VIU) which is being exclusively used for the thermal business vertical. The majority of the cost spent on raw materials is on sourcing of coal till the consumption at plant level, which directly benefits the business process system in terms of optimisation of men, material and resources at various stages of project execution as well as for the running plants and project sites.

In this journey, we implemented two major processes under the digitalisation flagship. These projects can improve the implementing innovative enhancements through Process Improvements, System Updating and IT System & Infrastructure Upgradations, along with deployment of the two digitalisation projects.



Spent Analysis in FY 2023

Total technological upgradation investment

₹11.10 CRORE

Total digitalisation investment

₹22.40 CRORE

Initiatives planned for FY 2024

We are working on various other projects aimed at further digitalisation. We are working to ensure some of these projects are executed in the financial year 2024. Some of these key projects are as mentioned below.

1. Setting up Integrated Digital command control for Renewables at Hyderabad, Thermal at Vijayanagar and Hydro at Delhi.
2. Deployment of Heat Rate Optimization at Ratnagiri plant for a unit to start for which the contract has been awarded to M/s TCE and work shall commence from Jun 2023.
3. A similar project has been considered for the Thermal - Vijayanagar Plant for Heat Rate optimisation, which is currently under review and finalisation of the vendor.
4. Development and deployment of Coal Inventory for the thermal business vertical.
5. Extension of OSI PI system with current development at Vijayanagar plant to other thermal plants covering Barmer and Ratnagiri. The contracts for these two projects are getting finalised.
6. Strengthening of OSI PI system at the central location, thereby having uniform structure and process for all thermal business verticals on a common platform for better availability and ease of maintenance.

