

# HIGHLIGHTS OF THE **Power Sector Vision 2030**

FOR MAHARASHTRA





# Power Sector Vision 2030

A sustainable and forward looking power sector providing high quality customer service and fostering the socio-economic growth of Maharashtra.



## Mission

- To make power supply **safe, cost effective and reliable**
- To enhance **customer service**
- To **digitalize** the power sector and bring **efficiency in operations**
- To make power sector operations **financially sustainable**
- To increase **clean energy adoption** in a sustainable manner



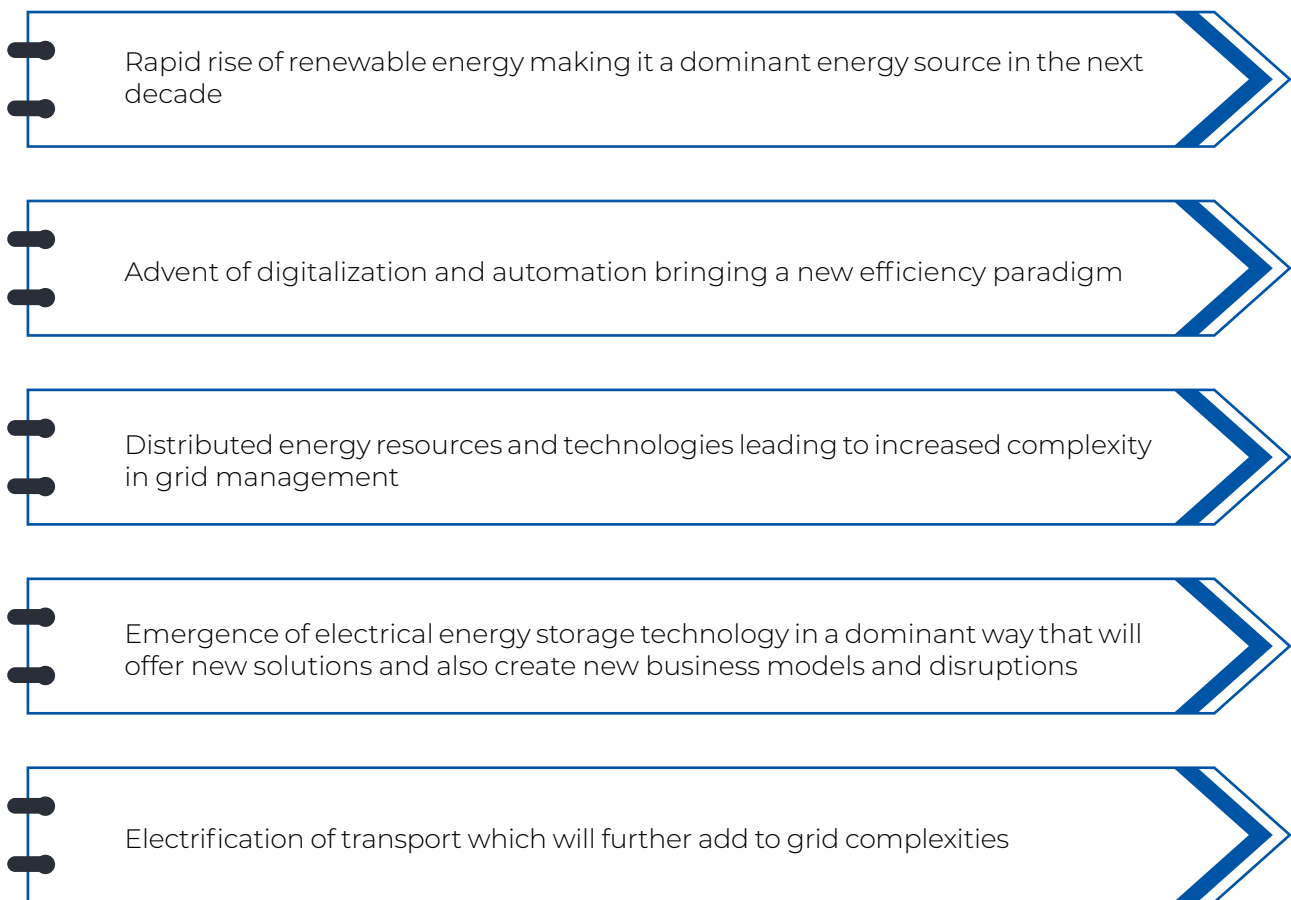
## Values

- We aim to provide **exceptional quality to customers**
- We ensure a culture of **respect, trust and accountability**
- We adhere to highest standards of **ethics and governance**
- We encourage **collaboration and innovation**
- We are **open** to change



The Maharashtra power sector is the largest producer and consumer of electricity in India and one of the front runners in areas such as financial performance, quality of power supply, adoption of digital technologies and promotion of clean energy. It has achieved 100% household electrification and effectively managed urban as well as rural power supply including handling a large volume of agricultural consumers.

As a key enabler for the State's vision to grow to a trillion dollar economy by 2025, the state power sector needs to continually evolve to address challenges such as increasing operational efficiencies, reducing cost of delivery and addressing varying needs of a diverse consumer base. The sector also needs to gear up for the following global disruptive trends that will impact the power sector in the coming decade:



In addition to the above, the power sector could see regulatory and policy evolution to incorporate the above changes and to move to a more efficient and competitive market structure. These include:



In this context, the Power Sector Vision 2030 is expected to provide a cohesive guiding framework to the state power sector for performing its obligations in a sustainable manner, addressing current challenges and at the same time meeting the requirements of the changing power sector landscape.

# The key levers for achieving the vision are:

**A**

## **Focussing critically on the efficiency paradigm**

The only way to sustain in the new order, is to focus strongly on efficiency. This includes:

- 1** → Efficiencies to reduce cost of power generation through digitalization and automation; and efficiencies in the coal value chain.
- 2** → Efficiencies in transmission planning and execution which are vital to avoid stranding of assets and at the same time to enable the most efficient power flows and dispatch. For this, capacity building and use of latest tools are critical.
- 3** → Power procurement optimization through better forecasting and dispatch, and efficient use of alternate sources of procurement (such as energy exchange). Again, this needs to be enabled by use of better technology and analytics which need to be embraced whole-heartedly.
- 4** → Efficiencies in power demand management particularly in the agriculture sector. Agriculture comprises nearly ~30% of power demand for Mahadiscom and there is a need to encourage innovative models that incentivize efficiency by farmers and also use technologies that address power, water as well as environmental aspects.

A comprehensive study to identify the roadmap for achieving efficiencies in the above areas will need to be done.

**B**

## **Encouraging clean energy adoption with a strong attention towards its effective integration**

The sector needs to continue to focus on clean energy adoption. In this context, new technologies that allow better resource utilization, overcome existing constraints and allow flexibility need to be evaluated. As the share of renewable energy rises rapidly in the coming decade, the following become key priorities:

- 1** → Making thermal plants flexible. Pilots in this area should be immediately initiated.
- 2** → Initiation of storage solutions such as battery storage and pumped hydro storage. A system study to identify the benefits at different levels of power sector value chain, with appropriate pilots, needs to be undertaken.
- 3** → Enhancing capabilities for forecasting and dispatch through use of latest technologies.
- 4** → Developing models that encourage support of private investors and generators in these areas. These include development of innovative models around hybrid renewable solutions that can provide dispatchable renewable energy power.
- 5** → Creating an appropriate environment to support initiatives such as demand side flexibility, through policy, technological and business model innovations

**C****Increasing consumer centricity**

As the sector evolves, the role of the consumer is likely to evolve in a way that grants him greater control over electricity generation and usage patterns. Therefore, consumer centricity gains even higher emphasis as the sector transitions. This requires measures such as:

**1**

→ Providing reliable power to the consumer at cost effective prices.

**2**

→ Mapping the consumer journey, understanding their expectations and implementing measures to simplify processes to serve the consumer better.

**3**

→ Providing value added services to consumers which enable them to optimize their consumption, save costs, and in future, participate in the grid as a prosumer.

**D****Creating a culture of innovation, digital orientation and creativity**

As the paradigm changes in the new order, it will be imperative to create an environment that brings innovation both internally and externally through creating an open platform that attracts new talent and start-ups to provide solutions to the sector. This calls for the following:

**1**

→ Creating a strong culture that is open to new ideas and thinking. The tone at the top should set the right environment for achieving this.

**2**

→ Creating competitions such as hackathons to source innovative ideas and following through with appropriate implementation.

**3**

→ Encouraging exchange programs with more advanced utilities and dissemination to a wider employee group through digital means and training.

**4**

→ Attracting youth to the sector through the creating the right environment and branding at campuses and in recruitment processes.



## E

### Bringing about governance and structural modifications

To bring independence and a level playing field in key areas, the following structural modifications need to be brought about:

- 1 Governance separation of transmission planning, operations and load dispatch functions to bring greater focus and independence in performing their respective roles. The capacity of these institutions should be strengthened through access to the right technologies and skilling.
- 2 To explore competitive forces in various areas, initiatives such as tariff based competitive bidding for transmission lines, franchisee models in certain high loss distribution areas, etc. could be explored. A study on this may be initiated to identify specific opportunities.
- 3 A culture of constructive stakeholder discussions and interactions should evolve which will strengthen over time through creation of the right environment of trust and mutual respect.

The above priorities and the action steps ensuing therefrom have been discussed in detail in the document "Power Sector Vision 2030: Maharashtra". It is expected that stakeholders will work together as envisaged in this document to help transform the sector into one of the most forward looking and customer oriented power sectors in India.

