

## Message from Chairman and Managing Director Grid Controller of India Ltd.

Dear Members of Grid-India Family, I wish you and your family a very happy and prosperous New Year 2024.

The New Year gives us an opportunity to pause and reflect on the successes and lessons learnt in the year gone by. It is also a day of renewing hope, optimism and of charting our path forward into the new year. As we embark on this journey, we must recommit to our goals and values. The Indian energy landscape is rapidly transforming, and it is our responsibility to not only keep pace but to lead the way, respond to changes with agility, wisdom and foresight.

The past year was a testament to Grid-India's adaptability, leadership and shared excellence of its people. Through collaboration and coordination we navigated regulatory changes, policy interventions and new technological integration and kept progressing towards better resilience and accelerated clean energy transition. As we celebrate our shared accomplishments in 2023, we need to be fully conscious of the greater challenges ahead. Grid-India must continue to be a beacon for the power sector.

In 2023, like always, our unrelenting quest was to ensure reliability, manage the grid efficiently and keep the lights on- always. In 2023, the electricity grid has evolved and will continue to grow and transform in 2024. Introduction of the New Indian Electricity Grid Code with effect from 1st October 2023 was a fundamental change and Grid-India is pivotal in facilitating its adoption and smooth implementation.

Resource Adequacy is the foundation for a reliable, cost-effective and sustainable power system. Grid-India has striven to maintain resource adequacy with a record level demand, touching 240 GW. Facilitating the greening and strengthening of the Grid, Grid-India on-boarded thousands of megawatts of clean generating capacity and circuit-kilometres of high capacity transmission lines. I want to compliment those in System Operation, especially our front-line System Operators who are at the very heart of all our endeavours, for navigating through these rapids, smoothly.

Indian power system achieved an installed Renewable Energy (RE) capacity of  $\approx 180$  GW with additional  $\approx 79$  GW under installation, thereby registering one of the fastest growths in RE capacity additions anywhere in the world. Renewable Energy Management Centre (REMCs) in SLDCs, RLDCs and NLDC facilitated significant renewable integration in the grid, with maximum wind and solar generation touching 64 GW. As on 1st January 2024,  $\approx 100.00$  GW of variable renewable (55.46 GW Solar and 44.55 GW Wind) is being monitored through the REMCs.



We also issued a comprehensive report in Nov 2023 on Events Involving Transmission Grid Connected Wind & Solar Power Plants detailing lessons learned about grid conditions, resource performance and future way forward.

2023 was a crucial year for power sector reforms such as Resource Adequacy Guidelines, Indian Electricity Grid Code (IEGC), General Network Access (GNA), Sharing of Transmission Charges and Losses, High Price Day Ahead Market (HP-DAM) along with Secondary and Tertiary Reserves Ancillary Services (SRAS and TRAS). Grid-India has worked diligently to overhaul and formulate procedures for smooth implementation of these new regulations.

With its ongoing endeavour of strengthening international co-operation and expanding global footprint, Grid-India has assumed Presidency for the International forum of System Operators-GO15 for the year 2024.

Recognising Grid-India's contribution in the Renewable Energy Certificates (REC) and Perform Achieve Trade (PAT) mechanisms, the government has entrusted us with the crucial responsibility of managing the Registry of the Indian Carbon Market. Building blocks are well underway, and we anticipate its launch in this year. Grid-India is also closely monitoring the developments in National Green Hydrogen Mission which aims to make India the global Hub for production, usage and export of Green Hydrogen and its derivatives where again green tagging of energy would become important for certification.

In an effort to upgrade our technical infrastructure, bids for SCADA/EMS system upgradation at NRLDC, WRLDC, ERLDC and SRLDC were floated and opened in 2023. The bids are under technical evaluation stage. To combat evolving cyber threats, GRID-India fully operationalized its Security Operations Centre (established in 2022) in 2023, integrating regional components for a unified defence network. This, alongside the implementation of the Cyber Crisis Management Plan, significantly strengthened the company's cybersecurity posture.

Grid-India received Great Place to Work recognition, reflecting the commitment of the organization towards creating a culture of trust, respect, and transparency. This achievement is a testament to our commitment to put employees at the heart of all our endeavours. Grid-India also bagged the prestigious Diamond award at ISGF Innovation Awards 2023 for implementation of National Open Access Registry (NOAR). In 2023, we successfully navigated the shift from brand POSOCO to GRID-INDIA, integrating our processes, values, and spirit under this new banner. The transition from POSOCO was no small feat, yet with unwavering dedication and agility, we rose to the challenge, seamlessly adapting to a new chapter in our history.

Grid-India has continued to invest in the professional development and well-being of our employees. Our success is driven by the dedication and expertise of our people, and we must nurture a workplace that inspires innovation and growth. In June 2023, Coursera subscription was launched for all employees, and a total 3500 learning hours have been achieved and growing! Development of our human capital is at the core of our endeavours, to foster this ethos, comprehensive leadership development initiatives were organised in 2023 to identify, nurture, and elevate emerging leaders within our organization. Grid-India employees published 23 technical papers in national and international conferences. 40 Grid-India employees attended various international conferences, study tours, workshops and seminars.



Growing in its role as a centre of excellence, Grid-India facilitated learning programmes for 60 Power Sector officials from 14-member countries of the West African Power Pool and 20 System Operators from Bhutan. Through the Forum of Load Despatchers, special Behavioural skill programmes were organised for SLDCs.

Another exciting development during the year, which deserves applause, is that after years of sustained efforts- the NERLDC's Main-II building at Guwahati is fully-operational. Operation of Main-I/Main-II concept at NERLDC in 2024 would be the first of its kind in India. The experiences from this would be useful in replicating this at WRLDC where land at Bhopal has been procured for another control centre and construction is expected to commence shortly. Main-I/ Main-II office of SRLDC is being planned at CPRI, Bengaluru and its construction is also expected to begin shortly.

In 2024, we need to relook as to how system, software, and data changes are managed, including upgraded software delivery processes, enhanced user acceptance testing, and enhanced internal and external change coordination and communications. We have to figure out as to how to integrate our systems with Technology, explore integration of Generative AI and Machine Learning. We also need to enhance critical generation control and market systems to improve operator efficiency and resource management capabilities. We need to strengthen our internal policies and processes, build in better efficiency, eliminate redundancies and automate. Securing Regulatory approval for next control period's manpower and fees and charges will also be one of the key focus areas of our engagement.

As we embark on this journey into 2024, let us carry forward the values that define us – integrity, innovation, and a relentless pursuit of excellence. We must endeavour to further improve reliability, deepen electricity market, enhance stakeholder engagement and advance our multi-year control centre modernization initiatives. Integration of Clean Energy, Cyber Security, Energy Storage, Reliability and resilience, International cooperation and capacity building of our people will continue to be areas of deep focus in 2024.

I extend my heartfelt gratitude to each member of the Grid-India family for your unwavering commitment and hard work. Let us face the challenges and embrace the opportunities of the coming year with enthusiasm and determination, confident in our ability to make a lasting impact.

With that, once again, I wish you and your family a very happy, safe and Prosperous New Year 2024. I hope this year brings joy and peace. Let us keep our learning spirit this year and keep moving forward.

Best Wishes,

(S.R. Narasimhan)

Chairman and Managing Director