



न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड
Nuclear Power Corporation of India Limited

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(भारत सरकार का उद्यम)

NUCLEAR POWER CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

CHAIRMAN'S STATEMENT

22nd September 2023

36th Annual General Meeting 2023



वसुधैव कुटुम्बकम्
ONE EARTH • ONE FAMILY • ONE FUTURE

Dear Shareholders,

It is my pleasure to welcome you all on behalf of Board of Directors to the 36th Annual General Meeting of your Company. It is my privilege to present you the Annual Report of your Company for FY 2022-23, which captures the essence of performance of your Company. The Audited Financial Statements for FY 2022-23 together with Directors' Report, the report of Statutory Auditors, Comments of the Comptroller and Auditor General of India and the AGM Notice are already with you, and with your consent, I consider them as read.

Before I take you through the highlights of the performance of your Company during the year, I am happy to announce that the Unit-3 of Kakrapar Atomic Power Project (KAPP-3 - 700 MWe) at Kakrapar in Gujarat started operating at its full capacity of 700 MWe on August 30, 2023. The Unit 3 had started commercial operation since June 30, 2023. It is a first of a kind Pressurised Heavy Water Reactor (PHWR) unit, designed by Indian Scientists and engineers and has advanced safety features which are comparable to the best in the world. With the design, construction, commissioning and operation of the reactor by Indian Engineers & Scientists and supply of equipment and execution of works by Indian industry, it is a shining example of the proud spirit of "Atma Nirbhar Bharat". It is a front runner in a series of 16 indigenous 700 MWe PHWRs which are at various stages of implementation.

Operations and financial performance

NPCIL presently operates 23 reactors with a total capacity of 7480 MWe. The performance of all operating units of Nuclear Power Corporation of India Limited (NPCIL) was satisfactory during the year 2022-23, generating 45855 MUs of electricity up to 31st March, 2023. The overall capacity factor of NPCIL was 87% and the weighted availability factor was 87%. The 10 Units of NPCIL had recorded Availability Factor of more than 90%.

The Commercial electricity generation through nuclear energy in Financial Year (FY) 2022-23 was 45855 MUs as against 47112 MUs in FY 2021-22, thus showing a decrease of 1257 MUs (2.67%). The major contributing factor for the decrease is due to the KKNPP output, which in FY 2022-23 with respect to FY 2021-22 was less due to 24 more days of planned RSD leading to a shortfall of around 560 MUs.

RAPS-3 EMCCR and EMFR activities were planned from October 2022 end, leading to a shortfall of around 700 MUs.

Units 1 and 3 of Kaiga Generating Station (KGS-1 and 3) operated throughout with an Availability factor of 100%. 6 units of NPCIL have completed more than 300 days of continuous Reactor operation, including KGS-1 and 3, which have recorded 504 and 665 days of continuous operation as on 31st March 2023.

Revenue from Operations for the year was Rs.14,619 crore and other income was Rs.1,626 crore. The profit before tax of the Company for FY 2022-23 was Rs. 6,138 crore and the total comprehensive income of the Company for FY 2022-23 was Rs. 5,202 crore.

During FY 2022-23, NPCIL had paid an interim dividend of Rs. 736.00 crore and thereafter, the Board recommended final dividend of Rs. 784.00 crore for the year 2022-23. The total dividend would be Rs. 1520 crore for FY 2022-23.

NPCIL Bonds/NCDs have been accredited with 'AAA' rating indicating highest safety.

Ongoing Projects and New Projects

In addition to KAPP-3, twin unit KAPP-4 is at advanced stage of commissioning. RAPP-7&8 is India's second pair of indigenously designed Nuclear Power Plant of 700 MW are progressing well.

Another two reactors of indigenous 700 MWe PHWR technology at Gorakhpur, Haryana (GHAVP-1&2) are under different stages of construction.

10 indigenous 700 MW PHWRs in Fleet Mode are being set up at Kaiga in Karnataka (Kaiga-5&6), Gorakhpur in Haryana (GHAVP-3&4), Chutka in Madhya Pradesh (Chutka-1&2) and Mahi Banswara in Rajasthan (Mahi Banswara-1 to 4).

4 reactors of Light Water Reactor(LWR) technology viz.KKNPP-3&4 and KKNPP-5&6, each of 1000 MWe capacity are also under construction at Kudankulam with Russian cooperation.

These reactors are expected to be completed progressively by 2031-32, taking the installed nuclear power capacity to 22480 MWe from 7480 MWe at present.

The Government of India had accorded 'in-principle' approval for five sites namely Jaitapur in Maharashtra, Kovvada in Andhra Pradesh, Chhaya Mithivirdi in Gujarat, Haripur in West Bengal and Bhimpur in Madhya Pradesh for taking up land acquisition and pre-project activities at these sites for setting up NPPs with international co-operation.

Jaitapur Nuclear Power Project is proposed to be set up in technical collaboration with Electricite de France (EDF), France. (Earlier M/s. AREVA, France was responsible for the implementation of the Jaitapur project from the French side, which has since been delegated by Government of France to EDF). The required land for the project and township has been acquired and is in possession of NPCIL. Pre-project activities such as geo-technical investigation, boundary wall construction, construction power supply, site office cum QA complex building, Fire Industrial Safety and Health (FISH) building, meteorological tower, laboratory buildings and approach road, rain water harvesting pond etc. have been completed.

Government of India accorded 'in-principle' approval to the site in October 2009 to establish 6x1208 MWe LWR reactors at Kovvada Site of Andhra Pradesh, with AP1000 technology from M/s. Westinghouse Electric Company (WEC), USA. A 'Principal Division of Responsibilities (DOR) document' based on an EP+C model (i.e. Engineering and Procurement responsibility with WEC and Construction responsibility with NPCIL) agreed between NPCIL and WEC. The land acquisition activities for the project are in progress.

At Haripur Site in West Bengal and Chhaya Mithivirdi, Gujarat the land acquisition is contingent upon the initiative of the State Government.

Commitment to Safety

NPCIL is committed to maintain safe work environment by adherence to Industrial and Fire Safety requirements through comprehensive oversight and support functions; and implementation of Safety Management System. Reinforcement on Industrial & Fire Safety activities of NPCIL plants remained the main focus during the year through a multipronged approach. Safety surveillance, enforcement, promotional activities, safety reviews and emergency exercises were conducted as part of implementation of safety management system in NPCIL for minimizing the risk of injury, fire and

exposure to health hazards to employees. The NPPs of the Company have registered 587 reactor years of safe, reliable and accident-free operation upto 31st March 2023.

Operating Stations and Construction Projects of NPCIL bagged prestigious National Safety Awards from Atomic Energy Regulatory Board, National Safety Council of India and Ministry of Labour & Employment.

There were no radiation exposures to workers above the AERB dose limits. At operating stations of NPCIL, certified Environmental Management System (EMS) as per ISO-14001 and Occupational Health and Safety Management System (OHSMS) as per IS-18001/ ISO-45001 are maintained and regular audits are carried out for continual improvement.

Quality Assurance

NPCIL in all its endeavours, is committed towards up-gradation and continuous improvements in Quality Management System which includes; Quality Assurance (QA), Quality Surveillance, Pre-service Inspection (PSI)/In-service Inspection (ISI) and Software Quality Assurance (SQA) activities. Quality Assurance/ Surveillance activities have been carried out expeditiously by providing Quality Surveillance coverage during manufacturing of equipment for Projects and Stations (in India and overseas). Review of Pre-Service Inspection/ In-service Inspection (PSI/ISI) data/results has been carried out as per Projects/Stations schedules. Regulatory Interface activities on QA & PSI/ISI has been carried out on timely manner to meet the project and station schedule.

Human Resource

NPCIL has strong and dedicated workforce of 10652 employees as on 31.03.2023 consisting of Engineers, Technicians, Supervisors, Non-Technical Executives, Staff and Auxiliary support staff who spearhead the activities of the organisation. Harmonious Employee Relations prevailed in all the Stations, Projects and Headquarters during the year. Variety of initiatives have been taken for overall development of personality and knowledge. Various Schemes for Rewarding Employees at Excellent Performing Stations and longest continuous operating Units (beyond 300 days and above) and for Industrial Accident-Free Period are drawn up and implemented in NPCIL.

Number of welfare measures have been implemented such as Payment of Ex-gratia @ Rs.30 lakhs to the families of deceased NPCIL employees in lieu of compassionate appointment. Payment of Ex-gratia was made to 29 families of NPCIL employees during the period. During the year 2022-23, the Sustenance benefit under NPCIL Benevolent Fund Scheme was enhanced from Rs.6000/- p.m. to Rs.9000/- p.m. to the beneficiaries of deceased member-employees.

NPCIL has always focused on to provide best medical facilities to its employees and their dependant family members, NPCIL follows the Contributory Health Service Scheme (CHSS) of DAE.

Corporate Social Responsibility

NPCIL is committed to economic and social development of the local communities around all its Units. The Corporate Social Responsibility and Sustainable Development initiatives were pursued in line with the provisions of the Companies Act, 2013. The CSR expenditure of Rs. 136.87 crore was incurred on new and ongoing projects of the CSR programme during FY 2022-23.

Initiatives taken to bring in procedural improvement for effective management

NPCIL management, in its continuous efforts to bring systemic and procedural improvement, is in the process of implementing ERP by replacing IT solutions presently being used in the Company.

Besides monthly review meetings by CMD, the Board Sub-Committee on Monitoring Ongoing Projects has held meetings with Whole Time Directors of the Company with an objective of bringing in procedural improvement in Project Management. The Board Sub-Committee has been entrusted with reviewing the HQIs (Headquarters Instructions) in line with the latest MOF guidelines by adding Simplified Clauses & procedures and give its recommendations the Board. The Committee in its one of the structured meetings invited representatives of the major contractors of the Company to know their concerns and issues. Based on the recommendations of the Committee, the Board approved enhancement /improvement in delegation of powers to the executives for awarding various works including petty works in the Company by issuing amendments to relevant of the Head Quarters Instructions (HQIs).

New Initiatives and Business Development:

As per the Presidential Directive received through DAE, NPCIL purchased 12.5% equity stake in UCIL and committed to purchase another 12.5% equity stake in FY 2023-24.

NPCIL and Bharat Heavy Electricals Limited (BHEL) have signed MoU to jointly pursue business opportunities in the area of Nuclear Power Plants based on Pressurized Heavy Water Reactor (PHWR) Technology. Under the MoU, BHEL & NPCIL will jointly explore opportunities for development of Nuclear Power Projects with a view to reduce Project gestation time.

Initiative towards Green Hydrogen Production

In line with 'National Hydrogen Mission', your Company has resolved to take enabling steps for entering into the business of clean Hydrogen generation from nuclear power at an appropriate time. In this context, the Company has finalised its hydrogen policy. NPCIL is setting up small Hydrogen Generation Plants and associated systems with 10 Nm³ per hour capacity at Rawatbhata and Tarapur sites to gain experience in Hydrogen production and related aspects.

Atmanirbhar Bharat Abhiyan

Government of India has launched the 'Atmanirbhar Bharat Abhiyan' or 'Self-Reliant India Mission'. NPCIL is consistently putting efforts to compliment this endeavor by enhancing indigenization of some of the imported equipment and components, progressively increasing use of GeM portal for procurement of equipment and components, providing opportunity to MSE sector wherever possible, launching of various new projects including 10x700 MW indigenous PHWR reactors in fleet mode. NPCIL Ranked "Overall 1st on GeM portal among all CPSE's for the FY 2022- 23. NPCIL procured goods and services worth Rs. 1542.41 Crore from MSEs in the FY 2022-23, which shows a progressive increase from the previous FY procurement of Rs. 1216.26 Crore.

India's net zero emission target

India has set a long-term goal of reaching net-zero emissions by 2070. As per World Nuclear Association (WNA) report, lifecycle mean Green House Gas (GHG) emissions from nuclear is about 28 tonnes CO₂ equivalent/MU compared to about 888 tonnes CO₂ equivalent/MU from Coal. Nuclear power's 'life-cycle' emission of GHGs is about the same as wind/hydro/solar. Nuclear power is environmentally benign and is recognized as clean source of base load electricity. Thus, Nuclear energy is vital to our nation's diverse energy portfolio and for meeting our goals for addressing India's energy challenges, mitigating carbon emissions, enhancing energy security and sustainable development.

Nuclear power stations are source of continuous, reliable, large scale, round the clock electricity. It is not subject to changing weather or climate conditions. Nuclear energy plants maintain high availability factors. Various operating units of NPCIL have recorded continuous operation of more than a year for 42 times (including more than a year for 4 time). Availability factor of sixteen (16) operating nuclear power plants during the year 2022-23 were achieved above 80%. The NPPs of the Company have registered 587 reactor years of safe, reliable and accident-free operation upto 31st March 2023.

NPCIL has attained maturity in implementation of PHWRs -the first stage of the nuclear power programme, with comprehensive capacity in the various facets of nuclear technology viz. siting, design, construction, commissioning, operation & maintenance, up gradation and life extension of Nuclear Power Plants. The first stage along with large size imported Light Water Reactors (LWRs) may play an important role in immediate term for meeting the goals of increased electricity supply and environmental issue of containing GHGs.

Corporate Governance

In NPCIL, we treasure our values viz. Safety, Ethics, Excellence & Care and good Corporate Governance practices remain at the core of NPCIL's value system. I would like to affirm that the Company has complied with the Corporate Governance Guidelines issued by the authorities.

Acknowledgements

Before I conclude, I would like to place on record my thanks to my colleagues on the Board for their valuable contribution in the functioning and growth of the Company. On behalf of the Company, I express my sincere gratitude to all our stakeholders for their unwavering trust and support.

(Bhuwan Chandra Pathak)
Chairman & Managing Director

Place: Mumbai

Date: 22nd September 2023.