



# Sustainability Report

FY 2024-25

Power behind  
**Green Power**

**NHPC Limited**  
(A Government of India Navratna Enterprise)



# About the Report

We are pleased to present NHPC Limited's fourth Sustainability Report, outlining our Environmental, Social, and Governance (ESG) performance for the period from April 1, 2024, to March 31, 2025. Throughout this report, NHPC Limited is referred to as "NHPC" or "the Organization."

This report highlights how sustainability is integrated into our strategy, operations, and organizational culture. As a key contributor to India's renewable energy landscape, NHPC continues to harness hydropower to provide clean and dependable energy while striving to reduce environmental impact.

In FY 2024-25, NHPC published its Business Responsibility and Sustainability Report (BRSR) in accordance with the Securities and Exchange Board of India's 2021 guidelines. In addition, NHPC undertook voluntary ESG reporting in the form of a Sustainability Report, through which we remain committed to transparent, annual sustainability reporting to track our progress on ESG priorities and to foster responsible practices across our value chain and the communities we engage with.

*Tulip at Corporate Office Complex*



## Reporting Standards and Frameworks

This Sustainability Report has been prepared in alignment with the GRI Standards (2021), providing a comprehensive, globally comparable structure for disclosing NHPC's material topics, management approach, and performance. In parallel, we align with the SASB Standards for Electric Utilities & Power Generators to report industry-specific, decision-useful metrics relevant to hydropower and clean energy generation.

Together, GRI and SASB enhance the completeness, comparability, and transparency of our disclosures. This report includes GRI and SASB content indices to assist stakeholders in navigating the information presented.



## Scope and Reporting Boundary

This Sustainability Report presents NHPC Limited's standalone sustainability performance for the period April 1, 2024 to March 31, 2025. The reporting boundary encompasses operations within India, including the Corporate Office in Faridabad, five regional offices, and 22 operating power stations (20 hydropower, 1 wind, and 1 solar). It covers core activities in power generation, as well as power trading and consultancy services.

Projects under construction and joint ventures are excluded from the scope unless explicitly stated. Any boundary exceptions or data exclusions are noted in the relevant sections. This scope underscores NHPC's commitment to delivering sustainable and innovative energy solutions across its operating footprint.



## Restatements of Information

There has been a retrospective restatement of the Revenue from Operations pertaining to FY 2024-25 (due to merger of Lanco Teesta Hydro Power Ltd with NHPC Limited). Any other restatements will be clearly identified and explained in the relevant sections, tables, or footnotes of this report.



## External Assurance

NHPC's Sustainability Report 2024-25 has been assured by SR Asia an external independent assurance provider, covering non-financial disclosures prepared in accordance with the GRI Standards (2021). The assurance was conducted in line with as per ISAE 3000 (revised), ISAE 3410 (as amended), AA1000As v3, AccountAbility UK. The related assumptions, methodologies, and data sources are described in the relevant sections of this report. The independent assurance statement is provided on page 170



## Feedback

We value transparency and open dialogue on ESG matters. Your feedback helps us improve our reporting and performance. We welcome your comments and suggestions on this report.

Please send them to:

**Environment & Diversity Management Division**  
NHPC Office Complex, Sector-33,  
Faridabad – 121003 (Haryana), India

**Email:**

[envdivmgn-co@nhpc.nic.in](mailto:envdivmgn-co@nhpc.nic.in), [esg-nhpc@nhpc.nic.in](mailto:esg-nhpc@nhpc.nic.in)



# Board of Directors



**Shri Bhupender Gupta**

Chairman & Managing Director (CMD)



**Shri Uttam Lal**

Director (Personnel)



**Shri Sanjay Kumar Singh**

Director (Projects)



**Shri Suprakash Adhikari**

Director (Technical)



**Shri Mahesh Kumar Sharma**

Director (Finance)



**Shri Mohammad Afzal**

Government  
Nominee Director



**Shri Premkumar Goverthanam**

Independent Director



**Dr Uday Sakharam Nirgudkar**

Independent Director



**Shri Jiji Joseph**

Independent Director



**Shri Anil Kumar Sood**

Independent Director

*Note: Board of Directors as on 6<sup>th</sup> November, 2025*

# Message from the Chairman



I am pleased to present NHPC's fourth Sustainability Report, which outlines our progress and priorities across the Environmental, Social, and Governance (ESG) dimensions for the financial year 2024-25. This report reflects our continued commitment to responsible growth, operational excellence, and long-term value creation for all stakeholders.

At NHPC, our journey is guided by a clear Vision to be a global leader in the sustainable development of clean power through competence, responsibility, and innovation. Our Mission is to achieve excellence in clean power development at international standards, execute projects efficiently with socio-environmental responsibility, empower human capital, and uphold best corporate governance practices. These principles are anchored in our Values, which include integrity, fairness, respect for individuals, zeal for excellence, and loyalty forming the foundation of our culture and decision-making.

This year has been particularly significant in NHPC's journey. We were conferred with the prestigious 'Navratna' status, an important recognition that enhances our strategic flexibility and reinforces our responsibility to lead with integrity and purpose. We also marked our 50th Raising Day, entering the Golden Jubilee Year a moment of pride that celebrates our legacy and enduring contribution to India's energy landscape.

In FY 2024-25, NHPC achieved a Plant Availability Factor (PAF) of 73.94%, demonstrating our focus on operational reliability and efficiency. We continued to expand our clean energy portfolio, with over 9,704 MW of hydro and renewable energy projects under construction, including the landmark 2,880 MW Dibang Multipurpose Project, Subansiri Lower HEP (2000 MW), which is at advance stage of commissioning.

We are proud to have been recognized as a "Great Place to Work" by Great Place to Work India, a testament to our inclusive, respectful, and values-driven workplace culture. Our

efforts in renewable sector are further acknowledged through accolades such as the "Navratna of the Year (Manufacturing) 2024" by Dalal Street Investment Journal, CBIP Award for outstanding Contribution for Development of Water Resources Power, and Renewable Energy Sector and other awards.

NHPC's ESG performance continues to strengthen over the years. We achieved S&P Global ESG Score of 61 in March 2025 against the previous Score of 48 in March 2024, reflecting our enhanced focus on environmental stewardship, social responsibility, and governance practices. Additionally, our compliance with the DPE Guidelines on Corporate Governance was rated as "Excellent" under the DPE's Corporate Governance Grading System.

As we continue to reach new milestones, I assure all stakeholders that the strategic directions and initiatives undertaken by NHPC are designed to deliver sustainable returns and create long-term value. This report, aligned with the Global Reporting Initiative (GRI) Standards, captures our collective efforts to advance clean energy, support communities, and uphold the principles of responsible business.

I extend my sincere appreciation to our employees, and external stakeholders for their unwavering support. Together, we are building a resilient and sustainable future powered by clean energy and guided by purpose.

**Bhupender Gupta**

Chairman & Managing Director  
NHPC Limited



## Message from Director (Personnel)

I am delighted to share 4<sup>th</sup> Sustainability Report of NHPC Limited, which showcases initiatives on Environmental, Social and Governance (ESG) aspects of our business operations.

We acknowledge that creating a sustainable future begins with cultivating a resilient and empowered workforce. This year, we are proud to be recognized with the 'Great Place to Work Certification', an affirmation of our commitment to foster a workplace built on trust, inclusivity, and continuous growth. At NHPC, we continue to place people at the heart of our operations ensuring that our journey toward clean energy is supported by a culture of care, capability, and commitment.

We advanced our efforts in employee well-being, safety, and inclusive growth. Our initiatives focused on strengthening engagement, fostering professional development, and building a workplace that reflects our core values of integrity and responsibility. Recognizing that many of our project locations are in remote areas, we have also introduced measures to support family well-being, ensuring holistic care for employees and their loved ones.

Our teams have consistently demonstrated dedication not only to operational excellence but also to social and environmental responsibility. Their contributions remain central to NHPC's progress and its role as a responsible corporate citizen.

As we look ahead, we remain committed to nurturing talent and building a people-first organization that supports sustainable development across every level.

A handwritten signature in black ink, appearing to read 'Uttam Lal', with a horizontal line drawn underneath.

**Uttam Lal**

Director (Personnel), NHPC Limited



## Message from Director (Projects)

Sustainability Report FY2024-25 of NHPC encompasses the disclosure on the Environmental, Social and Governance (ESG) initiatives of company. NHPC's commitment to expand clean energy infrastructure is driven by our focus on timely and efficient project execution. In the reporting year, we made significant progress across hydroelectric, solar, wind and pumped storage projects, ensuring that development milestones were met with precision and responsibility.

NHPC has developed an aggregate installed capacity of 8583 MW of renewable energy including one unit (250 MW) of Subansiri Lower HEP (2000 MW) of which COD declared on 23.12.2025. Currently over 8.2 GW is under construction and we are also advancing towards Pumped Storage to enable grid stability and future ready solutions. NHPC aims for capacity addition of approx. 30,000 MW by 2033-34 and to become more than 38,500 MW renewable energy company by 2033-34 and 50,000MW company by 2047.

Our expansion efforts reflect both scale and ambition in a sustainable manner. Each project is designed to strengthen energy security while advancing sustainability goals. Our approach emphasizes environmental stewardship and community engagement throughout the project lifecycle. By integrating sustainability into planning and construction, we continue to mitigate ecological impact while contributing to local development and employment.

Our teams remain focused on aligning execution with long-term sustainability goals, ensuring that infrastructure is built to serve both present and future generations. As we move ahead, we remain committed to delivering projects that reflect NHPC's values of integrity, efficiency, and environmental stewardship.

A handwritten signature in black ink, appearing to read 'Sanjay K Singh'.

**Sanjay Kumar Singh**

Director (Projects), NHPC Limited



## Message from Director (Technical)

Innovation and technical excellence are the cornerstones of NHPC's clean energy journey. The theme of this year's Sustainability Report, "The Power Behind Green Power," captures the essence of our work where engineering precision and innovation drive sustainable outcomes.

In FY 2024-25, NHPC achieved a Plant Availability Factor (PAF) of 73.94% and generated 19,878 MUs of clean energy, underscoring the reliability and efficiency of our operations. Our teams have played a vital role in optimizing project performance, our focus remained on strengthening design integrity, optimizing performance, and ensuring that technical standards across hydro, solar, wind, and emerging technologies meet the demands of a changing energy landscape. We worked diligently to embed sustainability into every phase of development from planning to operations.

As part of this commitment, the Environment & Diversity Management (EDM) Division of NHPC plays a key role in preparation of Sustainability Report by consolidating the Environmental, Social and Governance (ESG) data and advancing the ESG initiatives. This integration ensures sustainability remains central to our technical strategy and reporting.

We continue to uphold rigorous quality and safety benchmarks, ensuring that our infrastructure is resilient, efficient, and environmentally responsible. Our technical capabilities support NHPC's mission to deliver reliable clean energy while adapting to evolving challenges and opportunities.

A handwritten signature in black ink, appearing to read 'S. Adhikari', with a horizontal line drawn underneath.

**Suprakash Adhikari**

Director (Technical), NHPC Limited





## Message from Director (Finance)

At NHPC, we believe that financial strength is not merely reflected in numbers - it is catalyst for transformation. The theme of this year's Sustainability Report, "The Power Behind Green Power," encapsulates our role in advancing India's clean energy transition through prudent financial stewardship and sustainable investment decisions.

FY 2024-25 marked a period of strategic expansion underpinned by disciplined execution. Our robust financial planning enabled the scaling of hydropower assets while accelerating progress across emerging areas such as solar, wind, green hydrogen and pumped storage. These initiatives are strengthening our renewable energy portfolio and reinforcing NHPC's long-term financial resilience. Our strong financial performance has further enhanced NHPC's standing with financial institutions, reflecting sustained confidence in our stability and growth trajectory.

We regard sustainability as a driver of long-term value creation. By embedding Environmental, Social and Governance (ESG) considerations into our financial decision - making, we ensure that growth remains inclusive, responsible and future-ready. Every investment is guided by the principle of balancing profitability with purpose.

As custodians of public trust and clean energy ambitions, we remain committed to developing infrastructure that delivers enduring value. This Sustainability Report reflects our journey of powering green energy with robust financial stewardship - ensuring that NHPC continues to be the force behind a sustainable tomorrow.

A handwritten signature in black ink, likely of Mahesh Kumar Sharma.

**Mahesh Kumar Sharma**

Director (Finance), NHPC Limited



## Message from ED (EDM & Planning)

This Sustainability Report reflects NHPC's unwavering commitment to creating long-term value through responsible and transparent practices. It provides a comprehensive account of our environmental, social, and governance (ESG) performance for the financial year 2024-25, underscoring our progress toward a sustainable future.

During the year, NHPC achieved significant milestones in its ESG journey. Our S&P Global ESG Score improved from 48 to 61, underscoring our strong commitment to sustainability leadership. We also secured an NSE ESG rating of 67/100, demonstrating our enhanced focus on sustainability and governance excellence. Additionally, NHPC has been recognized as a Great Place to Work®, reaffirming our dedication to fostering an inclusive and engaging workplace culture.

These achievements are the result of collective effort. I extend my sincere gratitude to NHPC's leadership for their strategic guidance, and to all divisions and Power Stations of NHPC for their active participation in advancing our sustainability agenda. A special acknowledgment goes

to Sh. Rajeev Ranjan Prasad, GM (Environment), and ESG team of the Environment & Diversity Management Division for their invaluable contributions in shaping this report.

As we move forward, we remain committed to strengthening our ESG performance and maintaining transparency in reporting, ensuring that NHPC continues to lead in delivering clean energy for a sustainable tomorrow.

A handwritten signature in black ink, appearing to read 'Sandeep Batra'.

**Sandeep Batra**

Executive Director (EDM/Planning), NHPC Limited



## Message from GM (Environment)

NHPC's Sustainability Report for FY 2024-25 reflects our continued commitment to integrating environmental responsibility into every facet of our operations. As we expand our clean energy portfolio, we remain focused on aligning our efforts with India's Net Zero vision through responsible planning, execution, and monitoring.

Our emphasis remained on strengthening environmental governance across project sites and operational assets. We have worked diligently to ensure that our policies and practices support ecological balance, community well-being, and long-term sustainability.

I extend sincere appreciation to all our Power Stations, Regional Offices, and the Corporate Office for their consistent support in providing timely and accurate data to the Corporate Environment and Diversity Management (EDM) Division. Special thanks to Sh. Arvind Kumar Sharma, DGM (Environment); Sh. Manoj Kumar Singh, Group Senior Manager (Environment); and Ms. Pooja Sundi, Manager (Environment), for their valuable contributions to this report and our environmental initiatives.

I appreciate the support of SR Asia for providing external assurance and PwC for their expertise in ESG disclosures, enhancing the quality and credibility of this report.

This report stands as a collective reflection of NHPC's journey toward a cleaner, greener future.

A handwritten signature in black ink, appearing to read 'Rajeev'.

**Rajeev Ranjan Parsad**

General Manager (Environment), NHPC Limited



# WHAT'S INSIDE

<b>About the Report</b>	<b>ii</b>	<b>Governance</b>	<b>40</b>
<b>Board of Directors</b>	<b>02</b>	• Corporate Governance	42
<b>Message from the Chairman</b>	<b>03</b>	• Stakeholder Engagement	52
<b>NHPC Overview</b>	<b>12</b>	• Ethics, Integrity & Transparency	54
<b>ESG Highlights</b>	<b>15</b>	• Policy Framework & Accountability	59
<b>Corporate Overview</b>	<b>16</b>	• Powering Innovation, Research and Development	61
• NHPC's Pan-India Presence	18	• Risk Management	67
• Economic Performance	22	• Cybersecurity and Information Security Management	72
• Materiality Assessment	24	• Associations and Memberships	75
• ESG Goals, Targets & Roadmap	35		
• Certification and Standards	37		
• Awards and Recognition	38		

<b>Environment</b>	<b>76</b>	<b>Social</b>	<b>110</b>
• NHPC's Environmental Approach to Hydropower Development	78	• Human Capital Development	112
• Climate Strategy: Mitigation & Adaptation	79	• Diversity & Equal Opportunities	119
• Commitment to Net Zero Emissions	84	• Employee Development and Capability Building	123
• Energy Management	90	• Human Rights	132
• Emission Management	93	• Responsible Supply Chain	134
• Responsible Water Management	98	• Occupational Health, Safety & Wellness	137
• Waste Management	102	• Community Engagement & CSR Impact	141
• Biodiversity Conservation	106	<b>Glossary of Abbreviation</b>	<b>156</b>
		<b>GRI Content Index</b>	<b>161</b>
		<b>SASB Content Index</b>	<b>168</b>
		<b>Independent Assurance Statement</b>	<b>170</b>

# NHPC Overview

NHPC Limited is a Navratna Central Public Sector Enterprise incorporated in 1975 under the Companies Act, 1956 (formerly National Hydroelectric Power Corporation Limited). Listed on both the NSE and BSE, NHPC generates, sells, and trades electricity from hydro, wind, and solar power assets owned and operated by NHPC, its subsidiaries, and joint ventures. The Company is self-reliant across the entire energy generation lifecycle, covering site investigation, development, construction, and operation stages of renewable energy projects that are integral to meeting India's energy needs, reducing carbon emissions, and advancing sustainable development.

In addition to power generation, NHPC provides comprehensive consultancy services covering design

and engineering, investigations and geotechnical studies, procurement, construction and project management, supervision, and operation and maintenance of power plants. The company also undertakes maintenance of rural roads and electrification infrastructure and supports the construction and modernization of hydropower projects. Besides NHPC's various expert departments, a dedicated Environmental Department ensures that environmental considerations are embedded throughout the planning, construction, and operational phases of all projects and power stations. Moving ahead, NHPC marked a momentous milestone-50<sup>th</sup> Raising Day on 7th November 2024, the start of Golden Jubilee Year, highlighting the organization's enduring legacy and commitment to sustainable growth.



NHPC Swarn Jayanti Samaroh at Bharat Madapam, New Delhi in the August presence of Hon'ble Minister of Power, Housing and Urban Affairs, Government of India





NHPC Corporate Office  
- Jyoti Sadan



## Our Vision

To be a global leading organization for the sustainable development of clean power through competent, responsible, and innovative values.



## Our Mission

- To achieve excellence in the development of clean power at international standards.
- To execute & operate projects through efficient and competent contract management and innovative R&D in an environment-friendly and socio-economically responsive manner.
- To develop, nurture, and empower the human capital to leverage its full potential.
- To practice the best corporate governance and competent value-based management for a strong corporate identity and showing concern for employees, customers, environment, and society.
- To adopt & innovate state-of-the-art technologies and optimize the use of natural resources through effective management.



## Our Values

- Zeal to excel and zest for change
- Integrity and fairness in all matters
- Respect for the dignity and potential of individuals
- Strict adherence to commitments
- Ensure speed of response
- Foster learning creativity and teamwork
- Loyalty and pride in the company

# NHPC at a Glance for FY 2024-25



## Operational Highlights

**7832.90 MW** Total Installed capacity (including JV) RE under Operation (March, 2025), which increased to 8332.9 MW (Nov, 2025)

**10,204 MW** Projects under Construction (as on March, 2025)

**73.94 %** Plant Availability factor (PAF) in FY 2024-25

**Golden Jubilee Year**- NHPC celebrated its 50<sup>th</sup> Raising Day on November 7, 2024

Granted **Navratna Status** by the Government of India in August, 2024.

Parbati II - Commissioning of three units (200 MW each) of Parbati-II (800MW) HEP was achieved on 31<sup>st</sup>, March, 2025

**19,878 MUs** Energy Generation in FY 2024-25

**87.69 MWp** Rooftop solar capacity installation tender issued under PM Surya Ghar Muft Bijli Yojna for 8 central ministries & 5 states

**4.08 MWp** rooftop solar installed and progressing toward the additional 7.68 MWp across NHPC locations



## Financial Highlights

**₹ 8,994.26 Cr** Revenue from Operations in FY 2024-25

**₹ 1,918.60 Cr** Declared Total Dividend for the FY 2024-25

**International Credit Rating of "Baa3" with stable outlook** by the Moody's Investors Service Singapore Pte. Ltd and **"AAA" with stable outlook credit rating** assigned by domestic credit rating agencies for its listed bonds

**₹ 109.64 Cr** Spent on CSR & SD Activities in FY 2024-25

**₹ 22.64 Cr** expenditure on R&D activities

**₹ 15.57 Cr** Deposited for Green Credit Program in Gujarat.

# ESG Highlights



## Environment

**45,544 tCO<sub>2</sub>e**  
Total Scope 1 & 2 Emissions

**23,848 tCO<sub>2</sub>e**  
Total Scope 3 Emissions

- Fuel- and Energy-Related Activities: 20,952 tCO<sub>2</sub>e
- Employee commuting: 1,824 tCO<sub>2</sub>e
- Business travel: 1,072 tCO<sub>2</sub>e

**14.45 Million tCO<sub>2</sub>e** - avoided through generation of Renewable energy

**13.12 Million VCUs**- Verified Carbon Units generated in FY 2024-25

**Energy audit** at the Corporate Office.

**Retrofitted diesel generators** in corporate office to enhance energy efficiency.

Himalaya-specific seismic model with IIT Roorkee using NHPC's 57-station SMA network to enhance hazard assessments and optimize civil designs.



## Social

Achieved **Great Place to work** certification

**4,577** - Total Permanent workforce

**129** Persons with Disabilities – Empowering through inclusion

**INR 109.64 Crore** - Total CSR spend for the FY 2024-25

**Zero fatalities** - of employees in FY 2024-25

**1.73%** of Total Revenue spent on Employee Well- being in FY 2024-25

**Matritva** – Scheme for Supporting motherhood with care and comfort at the workplace.

**SAARTHI** – Scheme for Mentoring new talent to accelerate growth, cultural integration, and leadership development.



## Governance

**99.17%** Board attendance in FY 2024-25

**CPGRAMs** portal (of Govt. of India) being used to address all public grievances. **98.83%** CPGRAMs grievances resolved

Improved **ESG Score 61** (March, 2025) from 48 (March 2024), by S&P Global

**Zero** instances of data breaches

NHPC's compliance with 'DPE Guidelines on Corporate Governance' has been rated as **"Excellent"** by the DPE's Corporate Governance Grading System.

**56.12%** Preferential Procurement from MSEs in FY 2024-25





# Corporate Overview

NHPC's Corporate Overview presents a strategic snapshot of our nationwide operations, robust financial performance, and sustainability priorities. Key focus areas include PAN-India presence, economic value creation, stakeholder engagement, and materiality assessment—along with progress on ESG goals, certifications, and industry recognitions that reflect our commitment to responsible growth and long-term impact.

## In this section

NHPC's Pan-India Presence

Economic Performance

Materiality Assessment

ESG Goals, Targets & Roadmap

Certification and Standards

Awards and Recognition



*Teesta Low Dam - III Power Station (Barrage), West Bengal*

# NHPC's Pan-India Presence

## NHPC's Renewable Leadership: Pan-India Presence and Expansion

A cornerstone of India's clean energy transition, NHPC is the country's leading hydropower utility with a nationwide presence. The company has developed and commissioned 29 Power stations (as on 31.03.25, including JV) and strategically diversified into solar and wind, building a balanced renewable portfolio with an aggregate installed capacity of 7,832.90 MW (including JV, as on 31.3.2025). The completion of Parbati-II HE Project with longest head race tunnel in most challenging condition, is testimony of NHPC's commitment towards accomplishment of its projects, with 600 MW of the 800 MW capacity was commissioned on 31<sup>st</sup> March 2025.

In line with the Government of India's directive for CPSEs to expand regionally and evolve into globally respected

multinationals, NHPC is advancing three hydro projects in Nepal - West Seti (800 MW), Seti River 6 (460 MW), and Phukot Karnali (624 MW). DPRs for West Seti and Seti River 6 have been submitted and are under review by the relevant Indian and Nepali authorities, while key inception and review submissions for Phukot Karnali have been completed on schedule. EIA of West Seti HEP is underway through consultants. JV and PPA discussions are underway, with a development model spanning domestic supply and cross border exports to bolster regional energy security. NHPC has earlier commissioned Devighat (14.1 MW, Nepal) and Kurichu (60 MW, Bhutan) on a deposit basis and has established footprints in Nepal, Bhutan, Myanmar, Tajikistan, Nigeria, and Ethiopia.



### Total Installed Capacity

7,832.90 MW

Total installed capacity across hydropower, solar, and wind projects (as on 31.3.2025).



### Renewable Energy Share

100%  
Contribution of renewable energy (hydro + solar + wind) to total generation



### Projects Under Construction

10,204 MW

Aggregate capacity of hydro and renewable projects under implementation.



### Energy Generated

19,878 million units (MUs)

Total electricity generated during the year



### New Projects Commissioned

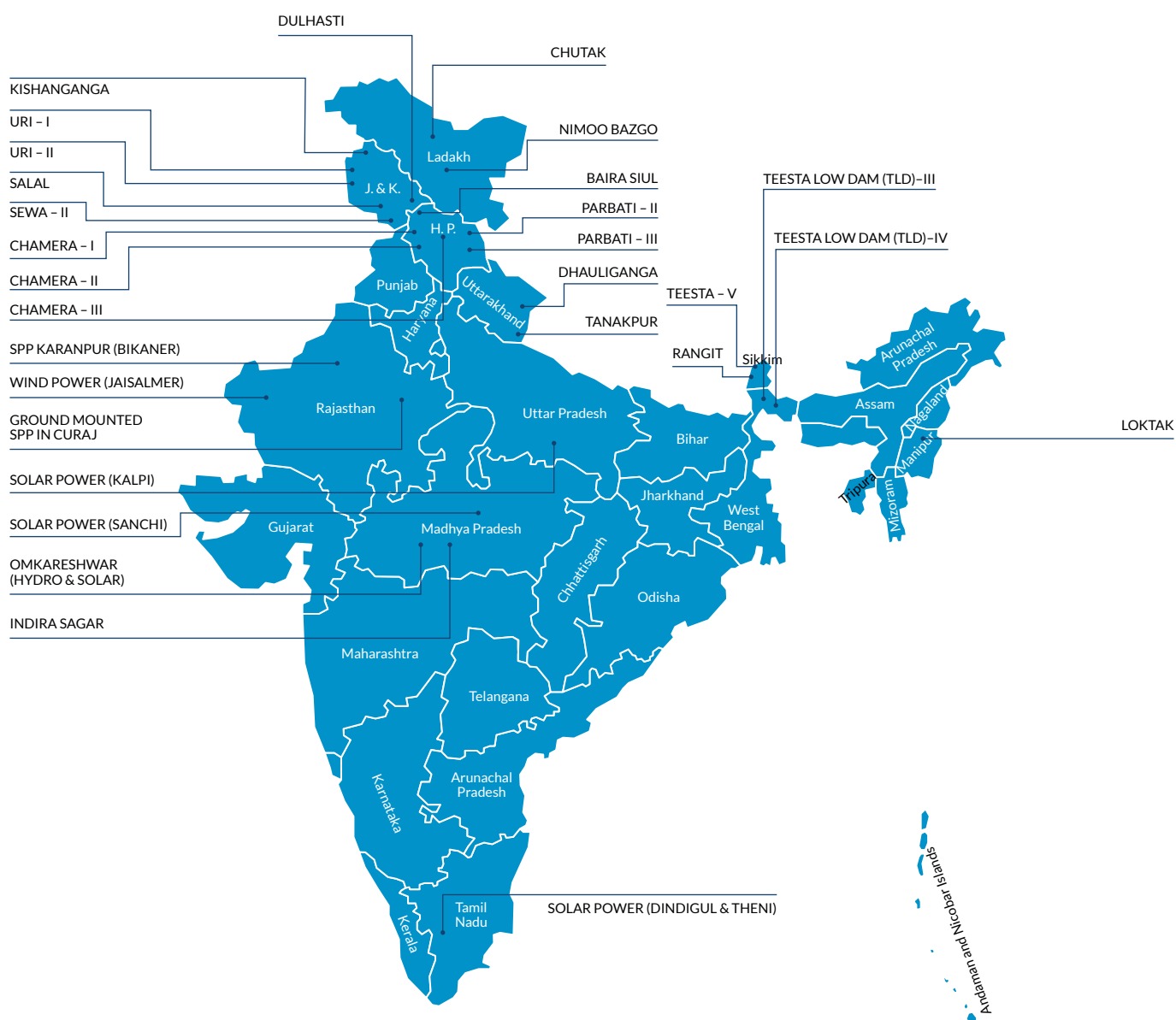
HEP 600MW  
Parbati-II out of 800 MW

Capacity added during FY 2024-25



The graphic below illustrates NHPC's installed capacity across hydro, wind, and solar assets across India, reflecting the company's commitment to reliable, low carbon power.

## NHPC POWER STATIONS



# NHPC's Installed Capacity (as on 31.3.2025)

State/UT	Power Station	Installed Capacity (MW)	Year of Commissioning
Power Stations Standalone			
Power Standalone			
UT of J&K	Salal	690	1987/1995
UT of J&K	Uri-I	480	1997-98
UT of J&K	Dulhasti	390	2006-07
UT of J&K	Sewa-II	120	2010-11
UT of J&K	Uri-II	240	2013-14
UT of J&K	Kishanganga	330	2017-18
UT of Ladakh	Nimoo Bazgo	45	2013-14
UT of Ladakh	Chutak	44	2013-14
Himachal Pradesh	Baira Siul	180	1981-82
Himachal Pradesh	Chamera-I	540	1994-95
Himachal Pradesh	Chamera-II	300	2004-05
Himachal Pradesh	Chamera-III	231	2012-13
Himachal Pradesh	Parbati-III	520	2014-15
Himachal Pradesh	Parbati II	600	2024-25
Uttarakhand	Tanakpur	94.2	1992-93
Uttarakhand	Dhauliganga	280	2005-06
Sikkim	Rangit	60	1999-2000
Sikkim	Teesta-V	510	2008-09
West Bengal	TLD-III	132	2013-14
West Bengal	TLD-IV	160	2015-16
Manipur	Loktak	105	1983-84
Tamil Nadu	Tamil Nadu Solar Power Project	50	2017-18
Rajasthan	Jaisalmer Wind Power Project	50	2016-17
<b>(A) Sub-Total NHPC (Standalone)</b>		<b>6,151.20</b>	
JVs/ Subsidiaries			
Madhya Pradesh	Indira Sagar	1000	2004-05
Madhya Pradesh	Omkareshwar	520	2007-08
Rajasthan	Ground Mounted SPP Ajmer	0.70	2024-25
Uttar Pradesh	Kalpi Solar Power	65	2022-23/2023-24
Madhya Pradesh	Solar Power Sanchi	8	2023-24
Madhya Pradesh	Floating Solar-PV (Omkareshwar)	88	2024-25
<b>(B)Sub-total NHPC(JV)</b>		<b>1681.7</b>	
<b>Total Installed capacity (A+B)</b>		<b>7832.90</b>	
<b>Installed capacity as on 26.6.2025 (as per Annual Report)</b>		<b>8193.61</b>	

# Details of NHPC's Under Construction Renewable Energy Projects (as on 31.3.2025)

State/UT	Power projects	Installed Capacity (MW)
<b>Standalone basis</b>		
Himachal Pradesh	Parbati II (200MW out of total 800MW)*	200
Assam / Arunachal Pradesh	Subansiri Lower HEP	2000
Arunachal Pradesh	Dibang Multipurpose Project	2880
Sikkim	Teesta Stage-VI HE Project (It was a project of Lanco Teesta Hydro Power Limited which merged with NHPC w.e.f 27.01.2025)	500
		<b>5,580</b>
<b>Through Subsidiaries/Joint Ventures</b>		
Sikkim	Rangit-IV HE Project (implementing through Jalpower Corporation Limited, a wholly owned subsidiary)	120
UT of Jammu & Kashmir	Pakal Dul HE Project [implementing through Chenab Valley Power Projects Limited (CVPPL), a joint venture with Jammu & Kashmir State Power Development Corporation Limited (JKSPDCL)]	1000
	Kiru HE Project (implementing through CVPPL)	624
	Kwar HE Project (implementing through CVPPL)	540
	Ratle HE Project (implementing through Ratle Hydroelectric Power Corporation Limited, a joint venture with JKSPDCL)	850
		<b>3,134</b>
<b>EPC Mode</b>		
Gujarat	Solar Power Project, Kutch, Gujarat under CPSU Scheme	600
Rajasthan	300 MW Karnisar Solar Power Project, Bikaner, Rajasthan under CPSU Scheme (Already commissioned 160.71 MW)	300
Andhra Pradesh	Solar Power Project, N.P. Kunta, Andhra Pradesh under CPSU Scheme	100
Gujarat	Solar Power Project at GSECL Solar Park, Stage 1 Khavda, Kutch, Gujarat (Through TBCB)	200
Gujarat	Solar Power Project at GSECL Solar Park, Stage 3 Khavda, Kutch, Gujarat (Through TBCB)	200
Kerala	Floating Solar Power Project at West Kallada, Kerala	50
Odisha	Solar Power Project at Ganjam, Odisha	40
		<b>1,490</b>
<b>Total Renewable Energy Capacity Underconstruction</b>		<b>10,204</b>

\*Balance unit 200MW of Parbati-II Hydropower Project successfully commissioned in FY 2025-26



# Economic Performance

## Economic Value Creation: Direct Value Generated

NHPC sustained strong economic performance in FY 2024-25, anchored by disciplined capital allocation, operational excellence, and a steadfast commitment to sustainable growth. Reinforcing its position as India's largest hydropower producer, the company continued to scale its renewable energy footprint across hydropower, solar, and wind, aligning with national clean energy goals and creating long-term value for stakeholders. Financial resilience during the year was supported by cost optimization, prudent investment decisions, and efficient project execution. This approach strengthened the balance sheet, preserved returns, and enhanced NHPC's capacity to navigate sectoral dynamics while capitalizing

on emerging opportunities. By integrating sustainability into investment decisions, the company ensured that growth remained both responsible and value accretive over the long term.

As of 31<sup>st</sup> March 2025, the Government of India held 67.40% of NHPC's equity, while the Life Insurance Corporation of India owned 5.22%. The company's authorized share capital stood at INR 17,500 crore, with a paid-up share capital of INR 10,045.03 crore as on 31<sup>st</sup> March 2025. NHPC's investment base was INR 87,121.11 crore as on 31<sup>st</sup> March 2025, reflecting continued investments in core hydropower assets and diversified renewable projects.



*Dhaultiganga Power Station (Power House), Uttarakhand*

## Direct Economic Value Generated and Distributed

Particulars	FY 2023-24	FY 2024-25
<b>Direct Economic Value Generated</b>		
Total Income	9,996.65	10,573.41
Rate Regulated Income	233.28	141.09
<b>Revenue from operations</b>	<b>8,396.49</b>	<b>8,994.26</b>
<b>Economic Value Distributed (Expense)</b>		
Generation Expenses	814.27	795.84
Employee Benefits Expense	1290.04	1,643.86
Finance Costs	726.06	1,147.00
Depreciation and Amortization Expense	1,111.00	1,125.06
Community Investments (incl. CSR Exp.)	85.73	82.30
Other Expenses	1,929.49	1,920.39
Income Tax expenses	551.54	916.07
<b>Economic Value Retained (Profit After Tax)</b>	<b>3721.80</b>	<b>3083.98</b>
Dividend to shareholders	1,908.56	1918.60
<b>Net Profit Ratio (%)</b>	<b>44.33%</b>	<b>34.29%</b>

During the reporting year, NHPC delivered healthy topline growth, with total income rising to INR 10,573.41 crore from INR 9,996.65 crore in the previous year. Profit after tax stood at INR 3,083.98 crore compared to INR 3,721.80 crore last year, indicating a modest decline in bottom-line performance. The company remains focused on disciplined execution, cost efficiency, and portfolio optimization to sustain revenue momentum and support long-term profitability.

NHPC maintains a resilient financial framework and emphasizes prudent financial resource management to minimize capital costs. NHPC has consistently received

high credit ratings from leading domestic agencies including ICRA, CARE, and India Ratings, affirming our robust creditworthiness. Internationally, our ratings from Moody's, Fitch, and S&P are aligned with India's sovereign ratings, underscoring our financial stability and global trust. We actively pursue both domestic and international borrowing avenues, in line with our strategic focus on business diversification. Our investments span backward and forward integration across the hydropower value chain, reinforcing our commitment to sustainable growth.

## Financial Assistance from Government

NHPC operates on a self-sustained basis and consistently contributes to the Government of India through regular dividends on its equity. Moreover, the company upholds its commitment to financial independence by not relying on any government benefits such as subsidies, grants, or royalties.

# Materiality Assessment

NHPC conducts periodic materiality assessments to identify and prioritize key Environmental, Social, and Governance (ESG) issues that significantly influence its business performance and contribute to broader environmental, economic, and social outcomes. In FY 2022–23, NHPC undertook its first Double Materiality Assessment (DMA) aligned with the Global Reporting Initiative (GRI) Standards 2021 and the European Sustainability Reporting Standards (ESRS) General Disclosures framework. This step marked the beginning of NHPC's structured approach to evaluating both financial materiality and impact materiality across its operations.

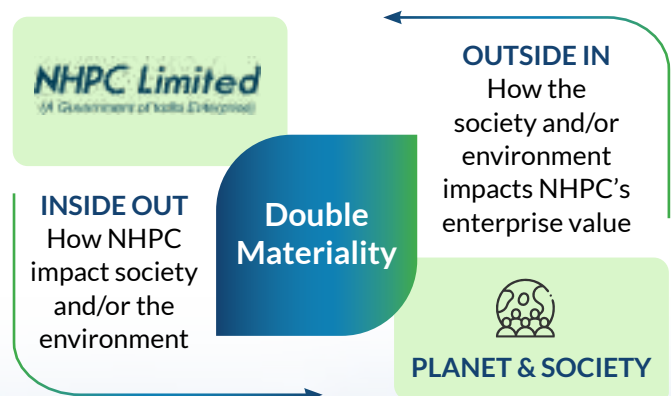
Building on this foundation, NHPC conducted another round of comprehensive Double Materiality assessment

in FY 2024–25, further strengthening our commitment to sustainability and responsible business practices. This iterative process ensures that we continuously identify, prioritize, and address material topics that influence our stakeholders and long-term value creation.

The identified material topics are reviewed and updated annually to ensure continued relevance and alignment with stakeholder expectations and evolving sustainability priorities. This process enables NHPC to proactively manage risks, seize emerging opportunities, and enhance strategic planning. By integrating sustainability into its core operations, NHPC builds stakeholder trust and drives long-term value creation in line with its commitment to responsible growth and sustainable development.

## Double Materiality Assessment

In recent years, the concept of double materiality has emerged as a cornerstone of sustainability reporting, particularly in the context of evolving global standards and stakeholder expectations. Unlike traditional materiality assessments that focus solely on financial implications, double materiality recognizes that companies operate within a broader ecosystem—one where environmental and social impacts are just as critical as financial performance.



Subansiri Lower HEP (Dam - under construction), Assam / Arunachal Pradesh



## Double materiality is defined by two distinct but interconnected lenses:

- **Impact Materiality:** Refers to the significance of a sustainability topic based on the company's impact on the environment, society, and the economy.
- **Financial Materiality:** Refers to the significance of a sustainability topic based on its potential to affect the company's financial condition, performance, or access to capital.

This dual perspective ensures that companies not only understand how sustainability issues affect them, but also how their operations effect the world around them.

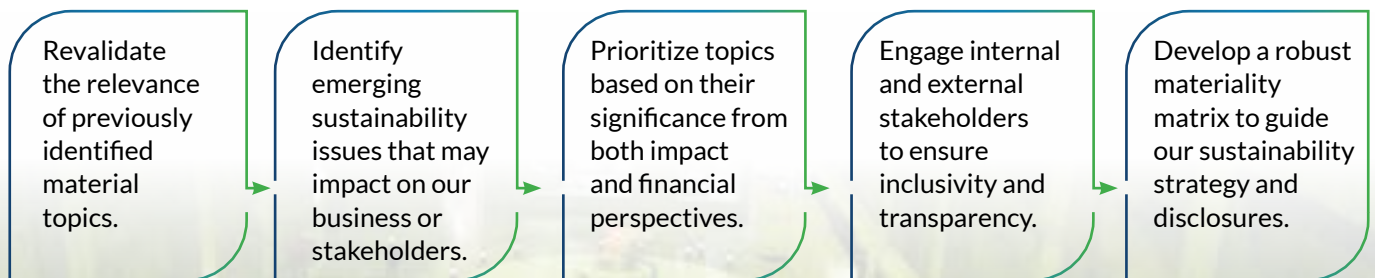
Our double materiality assessment for FY 2024–25 was conducted in alignment with the European Sustainability

Reporting Standards (ESRS) and the Global Reporting Initiative (GRI), both of which emphasize the importance of stakeholder engagement, risk and opportunity mapping, and transparent prioritization of material topics.

This year's assessment was a revision and enhancement of the double materiality exercise conducted in FY 2022–23. It reflects our commitment to continuous improvement, responsiveness to stakeholder feedback, and alignment with emerging regulatory frameworks such as the Corporate Sustainability Reporting Directive (CSRD).

## Objectives of the Assessment

The primary objectives of our double materiality assessment were to:



Chamara-III Power Station (Power House), Himachal Pradesh

# Methodology Overview

Our assessment followed a structured, multi-phase approach designed to ensure rigor, inclusivity, and strategic alignment. The process was led by the sustainability team in collaboration with senior management and supported by external consultants where necessary.



## Phase 1 Review of Existing Material Topics

We began by revisiting the material topics identified during our FY 2022–23 assessment. This involved a series of workshops and consultations with senior internal management, including representatives from strategy, operations, procurement, risk, Environment, Human Resource, Finance, Planning, Company Secretary and compliance functions.

**The purpose of this phase was to:**

- Evaluate whether previously identified topics remained relevant.
- Understand shifts in business priorities, stakeholder expectations, and regulatory landscapes.
- Identify any gaps or emerging issues that warranted inclusion.

This internal dialogue was instrumental in setting the foundation for a refreshed and more comprehensive topic universe.



## Phase 2 Expansion and Prioritization of Topic Universe

Based on the insights gathered during Phase 1, we expanded our list of potential material topics. This included both legacy topics and new areas such as emissions and energy management, waste management, community engagement and sustainable supply chain management.

**The expanded list was then reviewed by senior management to prioritize topics based on:**

- Strategic relevance to the business.
- Potential for stakeholder concern or scrutiny.
- Alignment with global sustainability frameworks and sectoral benchmarks.

This prioritization exercise helped us narrow down the list to a focused set of topics for deeper analysis.



Solar Power Project, Tamil Nadu

# Impact–Risk–Opportunity (IRO) Mapping

A central component of our double materiality assessment was the Impact–Risk–Opportunity (IRO) Mapping exercise. This framework enabled us to evaluate each material topic holistically considering not only its environmental and social impact, but also the associated risks and opportunities from a business perspective. The IRO Mapping process was designed to ensure that our materiality analysis goes beyond surface-level relevance and captures the strategic significance of each topic. It helped us quantify and qualify how sustainability issues intersect with our operations, stakeholder expectations, and long-term value creation.

## Impact

We assessed the environmental and social impact of each topic using both qualitative insights and quantitative indicators where available. The impact was either positive or negative. Where possible, we used quantitative indicators (e.g., GHG emissions, water usage, waste generation) to support our analysis.



## Opportunity

The third dimension of the IRO framework focused on identifying strategic opportunities associated with each topic. In each case, we attempted to present the nature of the opportunity whether it was a cost-saving measure, a reputational enhancer, or a driver of innovation. This helped us understand not just the risk of inaction, but the benefits of proactive engagement.

## Risk

The second dimension focused on financial materiality, specifically the business and financial risks associated with each topic. We quantified the risks with the help of secondary research and available database.

**We evaluated risks across several categories:**

### Regulatory Risk

Exposure to fines, penalties, or compliance costs.

### Reputational Risk

Damage to brand value or stakeholder trust.

### Operational Risk

Disruptions to supply chains, workforce, or infrastructure.

### Operational Risk

Direct cost implications, asset impairment, or reduced investor confidence.

## Stakeholder Engagement

Recognizing that materiality is inherently stakeholder-driven, we developed a customized questionnaire based on the IRO mapping outcomes. This questionnaire was designed to capture stakeholder perceptions of each topic's relevance and importance.

# Stakeholder Groups Engaged

## Internal Stakeholders



Employees

## External Stakeholders



Regulators  
(CEA, MOP,  
MOEF&CC, Govt  
of India)



Suppliers/  
Contractors



DISCOMs



Local  
communities



Inverstors/  
Bankers

We engaged a diverse set of internal and external stakeholders, including employees (mainly senior officials), DISCOMs, regulators and policymakers such as Central Electricity Authority, Ministry of Power, MOEF&CC, (Govt of India) and members of Local communities. Each stakeholder group was asked to rate the Impact of the topic based on scale, scope, remendability and likelihood along with financial materiality based on magnitude and likelihood. We have received over 148 responses: 114 Internal and 34 External responses.

The engagement process was conducted through a combination of surveys, interviews, and focus group discussions, ensuring both breadth and depth of input.

## Development of the Double Materiality Matrix

Based on the IRO mapping and stakeholder feedback, we developed a double materiality matrix that visually represents each topic's significance from both impact and financial perspectives.



### Matrix Design

The matrix is structured as a two-dimensional graph:

- X-axis: Financial materiality (impact on the company).
- Y-axis: Impact materiality (impact on environment and society).

Each topic is plotted based on its assessed score in both dimensions. Topics in the top-right quadrant are considered highly material—they have significant implications for both the company and its stakeholders.



### Use of the Matrix









The double materiality matrix serves as a strategic tool to:

- Guide our sustainability disclosures and reporting priorities.
- Inform risk management and strategic planning.
- Align internal resources with high-impact areas.
- Communicate transparently with stakeholders.




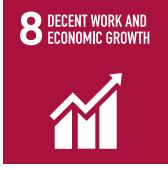






# NHPC's Approach to Addressing Material Topics





Material Topic	Rationale and NHPC's approach	GRI Alignment	UN SDGs Alignment
 <b>Climate Change Adaptation and Mitigation</b>	<p>Climate Change has impacts, such as extreme weather events and rising temperatures, that can disrupt operations, damage infrastructure, and increase remedial costs. Addressing climate change is essential for meeting regulatory requirements, stakeholder expectations, and maintaining our reputation as a responsible organization. The business operations of NHPC are in the renewable energy sector, which has the least impact on environment.</p> <p>However, to mitigate risks of climate change multiple measures are being taken up by company, which includes energy-efficient lighting, energy conservation, roof-top solar installations, and transitioning to electrical mobility solutions. We also monitor and conserve energy at all locations, adopting renewable energy sources (rooftop solar) to minimize Scope-2 emissions. Additionally, we have installed early warning systems and engaged in R&amp;D study for GLOF studies to reducing the risk of climate change.</p> <p>Automatic water level sensors, along with telemetric data transmission, supports GLOF and modeling studies and Early Warning System (EWS). The assessment of GHG emission from Chamera-1 reservoir was conducted as a R&amp;D Study.</p>	<p>GRI 305: Emission</p> <p>GRI 302: Energy</p>	  
 <b>Emissions and Energy Management</b>	<p>Controlling emissions and energy use is vital for addressing climate change, safeguarding air quality, and ensuring sustainable operations. While hydropower generation is largely emission-free, supporting activities such as fuel use, DG sets, and construction contribute to greenhouse gases and air pollutants, requiring proactive management.</p> <p>NHPC tracks and manages emissions across Scope 1, 2, and 3, including those from fossil fuel use, DG sets, and employee travel. The company is adopting cleaner technologies, improving energy efficiency, and exploring sustainable alternatives for transportation and backup power. Measures include reducing SOx and NOx emissions, controlling dust during construction, and minimizing fugitive emissions from equipment.</p>	<p>GRI 302: Energy</p> <p>GRI 305: Emissions</p>	  

Material Topic	Rationale and NHPC's approach	GRI Alignment	UN SDGs Alignment
 <b>Water Management</b>	<p>Water is vital component for hydropower generation. Hydropower technology involves non-consumptive usage of water, means water is not depleted but rather returned to its source. This approach conserves vital water resources. In the downstream of dam, e-flow is maintained for sustenance of aquatic ecosystem. In the Catchment area in upstream of dam, environment protection measures named CAT plan are being implemented through State Forest Department, to augment water capacity of reservoir by controlling siltation. Also, NHPC has its Water Conservation policy for adopting sustainable practices. Mainly, the water is consumed in facilities like offices/ colony. To further optimize water consumption, water-saving measures are being implemented at our offices and colonies. Additionally, wastewater treatment procedures are followed to ensure water reuse and recycling. These initiatives demonstrate our commitment to responsible water management and environmental stewardship.</p>	GRI 303: Water and Effluents	
 <b>Waste Management</b>	<p>The core business operation of NHPC is in Hydropower Generation. As such, hydropower is not a waste intensive operation.</p> <p>NHPC manages construction muck through systematic disposal and reuse strategies. Hazardous waste, including used batteries, oils, and e-waste, is segregated and disposed of as per regulatory norms. Domestic waste and wastewater from residential colonies are disposed properly adhering with the norms of SPCB. These practices help NHPC minimize environmental footprint, comply with statutory requirements, and uphold sustainable operations. In this process, Waste management policy of NHPC is also acts as guiding tool.</p>	GRI 306: Waste	
 <b>Biodiversity Protection</b>	<p>Biodiversity Protection is material topic for our company, for which conservation measures are followed as per the regulatory norms and Biodiversity Policy of NHPC. At the inception and planning stage of a proposed hydropower project, detailed biodiversity study is conducted to assess the impacts of a proposed project prior to its construction. Generally, this study is conducted as part of Environmental Impact Assessment (EIA) study through an independent accredited consultants before project implementation. Based on these studies, project or site specific Biodiversity Conservation plans are prepared as part of Environmental Management Plan (EMP) and implemented in consultation with the State Forest Department.</p> <p>Fisheries Development plan is implemented through State Fisheries Department. These efforts demonstrate our dedication to maintaining biodiversity and promoting ecological balance in the areas where we operate. Additionally, we carried out initiatives such as plantation drives, development of herbal parks, Orchidarium and butterfly parks to support the long-term conservation of the regions' flora and fauna.</p>	GRI 304: Biodiversity	 

Material Topic	Rationale and NHPC's approach	GRI Alignment	UN SDGs Alignment
 <b>Community Engagement</b>	<p>NHPC has its policy for Stakeholder engagement that helps to maintain strategic relationships with both internal and external stakeholders, responding to their expectations and concerns in a timely and appropriate manner. This commitment to progressive engagement ensures that stakeholders are actively involved in our activities and operations. NHPC fosters the well-being and growth of the communities in which it operates. Different types of social development schemes are implemented as per CSR policy of NHPC in line with Section 135 of the Companies Act, 2013, and the Companies (Corporate Social Responsibility Policy) Rules, 2014, amendments and general circulars issued by the Ministry of Corporate Affairs. The grievances redressal mechanism for addressing the concern of employee and community are in place in NHPC.</p> <p>Public consultation is conducted during the process of environment clearance of a project to seek the concern of local community about the implementation of project. Similarly, consent of gram-sabha is solicited for diversion of forestland required for Project. In this way, local community are integral part of business practice of company.</p>	<p>GRI 3: Material Topics</p> <p>GRI 2-29: Approach to stakeholder engagement</p> <p>GRI 413: Local Communities</p>	  
 <b>Occupational Health and Safety</b>	<p>Safety and working conditions ensure a safe and conducive working environment which is essential for maintaining high staff morale and operational efficiency, impact workers health, productivity, and overall well-being. To address these issues, NHPC has dedicated Safety Policy for providing safety training, monitoring for safety norms and conducting regular mock drills on potential emergency scenarios. These steps enhance awareness among employees and stakeholders, reinforcing our commitment to a safe and healthy workplace. NHPC is IMS certified which includes ISO 45001 certification for Occupational Health and Safety.</p>	<p>GRI 403: Occupational Health &amp; Safety</p>	



Material Topic	Rationale and NHPC's approach	GRI Alignment	UN SDGs Alignment
 <b>Human Capital Development</b>	<p>NHPC strives for the holistic development of our workforce from recruitment to retirement through various career advancement trainings and related initiatives. Addressing employee well-being, remuneration grievances, and diversity and inclusion concerns are essential strategies to ensure and boost productivity among our employees. To support these goals, we adhere to the regulations of the Government of India and the Acts governing various aspects of labour and employment. We are dedicated to preventing discrimination, harassment, abuse, and bias in our operations, treating all individuals with dignity and integrity. Our commitment to ethical business practices includes respecting employee and community rights, promoting inclusivity, diversity, and equality. We have established an Internal complaints Committee under the Sexual Harassment of Women at Workplace (Prevention, Prohibition &amp; Redressal) Act, 2013 and encourage women leadership in all activities. Additionally, we provide facilities such as a creche at our Corporate Office, conduct Annual Health checkups, provide regular training for employees on Health and Stress management, training to divyang employees and human rights training for security personnel and staff. We have also established the National Telemanas programme to promote awareness and support on mental health. These initiatives demonstrate our dedication to fostering a supportive and equitable work environment.</p>	<p>GRI 401: Employment</p> <p>GRI 404: Training and Education</p> <p>GRI 405: Diversity / Equal Opportunity</p> <p>GRI 406: Non-Discrimination</p> <p>GRI 407: Freedom of Association and Collective Bargaining</p> <p>GRI 408: Child Labour</p> <p>GRI 409: Forced or compulsory Labour</p> <p>GRI 412: Human Rights Assessment</p>	 
 <b>Regulatory Compliance and Risk Management</b>	<p>Compliance with laws and regulations is fundamental to maintaining operational integrity and sustainability. Similarly, effective risk management is critical for business continuity, particularly in addressing financial, regulatory, and climate-related challenges.</p> <p>NHPC has established a robust policy framework, including the Corporate Environment Policy, to ensure adherence to environmental and regulatory norms relevant to the power sector. At the project level, environmental safeguards are implemented and monitored through mechanisms such as six-monthly reports to the MoEF&amp;CC, monitoring by State Pollution Control Boards, and Environmental Management Committee meetings.</p> <p>For risk management, NHPC follows a comprehensive strategy aligned with international standards. This includes strong cybersecurity and data protection measures to prevent data breaches, as well as initiatives to mitigate climate risks. Advanced R&amp;D studies using remote sensing technology support GLOF assessments, and an Early Warning System has been developed to enhance preparedness. These efforts collectively reinforce NHPC's commitment to responsible, sustainable, and resilient business practices.</p>	<p>GRI 307: Environmental compliance</p> <p>GRI 2-27 Compliance with laws and regulations</p> <p>GRI 201-2 Financial implications and other risks and opportunities due to climate change</p>	  

Material Topic	Rationale and NHPC's approach	GRI Alignment	UN SDGs Alignment
 <b>Business Ethics and Integrity</b>	<p>Maintaining ethical integrity and openness in governance processes integrates ethical leadership, generates confidence, and creates long-term benefits for all stakeholders. To support these principles, NHPC has established internal procedures supported with policies like Whistle Blower Policy, Conduct, Discipline and Appeal Rules for ensure a zero tolerance for corruption and unethical practices. A dedicated Vigilance Dept. is functional at the corporate office- ensuring ethics, transparency and productivity is maintained in business operations. Our strong commitment to generating long-term value contributes to our robust economic performance and market leadership.</p>	<p>GRI 201: Economic Performance</p> <p>GRI 205: Anticorruption</p> <p>GRI 206: Anticompetitive Behaviour</p>	
 <b>Sustainable Supply Chain Management</b>	<p>Building a sustainable supply chain is vital to minimizing environmental impact and promoting ethical practices. By addressing risks such as resource efficiency, water conservation, carbon reduction, and labor rights, NHPC ensures responsible procurement and long-term resilience.</p> <p>NHPC drives sustainability through its Supplier Code of Conduct and sustainable procurement practices, embedding ESG principles across the supply chain. These include commitments to human rights, safe working conditions, environmental stewardship, and business integrity. Such measures not only reduce compliance risks but also enhance supplier performance, strengthen resilience, and contribute to national development goals resulting in a more ethical, inclusive, and cost-effective supply chain.</p>	<p>GRI 204: Procurement Practices</p> <p>GRI 308: Supplier Environmental Assessment</p> <p>GRI 414: Supplier Social Assessment</p>	

# ESG Goals, Targets & Roadmap

## Approach and Progress of ESG Delivery

Translating ambition into accountable outcomes, NHPC follows an ongoing cycle of setting objectives, monitoring progress, and making timely adjustments. We define clear goals, translate them into implementation plans, and conduct annual reviews to evaluate performance. Objectives and targets are reassessed regularly and revised as needed to reflect changing circumstances and address unforeseen challenges.

NHPC's ESG goals remain focused and practical: optimizing resource efficiency to advance sustainability

and operational excellence; fostering an inclusive, healthy workplace that supports workforce well-being and diversity; and upholding ethics and transparency to ensure integrity and open communication. These goals align our strategy with sustainable and ethical standards while keeping execution outcomes oriented. To support delivery, our implementation approach is designed to be flexible, allowing for course corrections without losing momentum. This adaptability underpins our efforts to achieve excellence in ESG performance.



### Short Term



#### GOALS

- Strengthening of ESG Data collection and reporting mechanism
- Building GHG Scope 3 inventory across applicable categories
- Conducting ESG awareness and capacity building sessions for internal stakeholders



#### STATUS

- Streamlined
- In Progress
- Achieved



#### PROGRESS

- Established online portal on NHPC Intranet (BRSR Portal) for efficient ESG data collection and monitoring; initiated efforts to improve accuracy.
- Reported 3 categories of GHG Scope 3 emissions in Sustainability report FY 2024-25.
- Conducted ESG Awareness session across topics from reporting requirements to emerging guidelines for KMP, Nodal Officers.

Tulip at Corporate Office Complex



## Medium Term (2-5 years)



### GOALS

- Increase coverage of GHG Scope 3 categories in data collection and reporting
- Conduct awareness sessions and capacity building sessions for selected Value chain Partners
- Reduce our carbon emissions through continued deployment of EV mobility and initiatives for retrofitting of DG sets at the Corporate office
- Conduct assessment survey of existing water and waste management practices
- Improve water conservation and waste management practices



### STATUS

- In progress
- In progress
- In progress
- In progress
- In progress



### PROGRESS

- Reported additional category of GHG Scope 3 emissions in Sustainability report FY 2024-25 in addition to Previous year, which covered 2 categories.
- Identified critical supply chain vendors for engagement and ESG data requirements
- Retrofitting of DG sets with low emission device at corporate offices and NHPC residential colonies; 29 EVs deployed for day-to-day operations at the Corporate Office.
- A preliminary assessment has been conducted to analyze the existing waste and waste water management practices and areas for improvement.



## Long Term



### GOALS

- Install a further 3000 MW of hydro power capacity and an additional 1200 MW of other renewable energy sources by 2030
- Targeted "Zero Accident" and "Zero Fatality" work environment
- Foster stakeholder relationship for progressive grievance redressal with targeted "Zero" pending resolution at close of the year
- Periodic monitoring and evaluation of implementation of EMP to ensure that NHPC is compliant with local and national regulations



### STATUS

- In progress
- In progress
- In progress
- In progress



### PROGRESS

- Parbati-II: 600 MW (of 800 MW) commissioned in FY 2024-25; 10,204 MW under construction
- Achieved Zero Fatality status 2 years in a row- in FY 2024-25 and FY 2023-24
- 98.83% CPGRAMS grievances resolved in the reporting year FY2024-25
- Half-yearly Environmental Clearance (EC) compliance reports are submitted to MoEF&CC, published on NHPC's website, and supported by site-specific monitoring.



## Other Long Term Goals – In Progress



### GOALS

- Strengthening the wastewater treatment mechanisms at residential colonies of power stations and projects
- Maintain Diversity in manpower and its Inclusion at all levels including leadership
- Collectively nurture Sustainable supply chain through capacity building program



# Certification and Standards

## Elevating Operational Excellence: ISO-Aligned Integrated Management at NHPC

NHPC has established, implemented, and continues to enhance an enterprise-wide Integrated Management System designed to align key processes and their interactions with applicable standards, achieve intended outcomes, and strengthen overall performance. The system applies across the organization and covers all employees.

Beyond the Corporate Office, the Integrated Management System is operational across all Power Stations. The IMS encompasses ISO 9001 for Quality Management, ISO

14001 for Environmental Management, and ISO 45001 for Occupational Health and Safety. NHPC's Corporate Office is certified to ISO/IEC 27001:2022 for Information Security Management Systems.

In addition to the ISO standard-based certifications, NHPC is certified as SA 8000 compliant. This certification reflects NHPC's commitment to maintaining high standards of social responsibility and ethical conduct in all aspects of its operations.

				
ISO 9001 : 2015	ISO 14001 : 2015	ISO 45001 : 2018	ISO 27001 : 2013/2022	SA 8000 : 2014
Quality Management	Environmental Management	Occupational Health and Safety	Information Security Management	Standard for Social Accountability



NHPC Corporate Office - Neer Shakti Sadan

# Awards and Recognition

## Advancing Sustainability: Recognition and Honors in FY 2024-25

NHPC's commitment to responsible operations and meaningful impact continued to earn recognition from reputed institutions during FY 2024-25. These accolades reflect our steady progress toward a sustainable future where clean energy development is integrated with environmental stewardship and social responsibility. Presented below are the awards and recognitions received in FY 2024-25, underscoring our ongoing pursuit of a more resilient and sustainable tomorrow.



Economic Times HR World Future Ready Organization Award



Economic Times HR World Future Skills Gold Award



"India's Best Hydro & Renewable Energy Public Sector Enterprise Award" at the PRAKASHmay 17th ENERTIA Awards



'Outstanding Achievement' Award in the 'Hydropower Generator' category at the 25th Regulators and Policymakers Retreat (RPR 2025)





Excellence Award in implementing official language policies awarded by the Department of Official Language, Ministry of Home Affairs



CBIP Individual Award for Outstanding Contribution for Development of Water Resources Power, and Renewable Energy Sector



Confederation of Indian Industry (CII) HR Excellence Award for 2024-2025 conferred to NHPC for HR Excellence during 15th CII National HR Excellence Award Confluence 2024-25.



Honorary Award for outstanding contribution to the development of renewable energy received during State Leadership Meet at Lucknow (UP).

# Governance

## Strong Governance for Sustainable Growth

Robust governance is the foundation of NHPC's sustainable business model. Guided by transparency, accountability, and ethical practices, we adhere to the highest standards of corporate governance and regulatory compliance. Our governance framework integrates sustainability into strategic decision-making, risk management, and stakeholder engagement. With a strong focus on integrity, anti-corruption measures, and responsible business conduct, NHPC ensures that growth is achieved in a manner that is ethical, inclusive, and aligned with long-term value creation.

### In this section

Corporate Governance

Stakeholder Engagement

Ethics, Integrity & Transparency

Policy Framework & Accountability

Powering Innovation, Research and Development

Risk Management

Cybersecurity and Information Security Management

Association and Memberships

*Nimmo Bagzo Power Station, UT of Ladakh*



## Highlights

**99.17%**

Board attendance

**61/100**

S&amp;P Global ESG Score (Mar 2025)

**Navratna status**

Strategic flexibility and stature enhanced

**DPE “Excellent”**

Top corporate governance grading

**100%**

utilization of the CSR budget allocation

**98.83%**

CPGRAMS grievances resolved

**“0”**incident reported on Whistleblower/  
corruption/ insider trading/ privacy/  
data-breach incidents

# Corporate Governance

NHPC upholds a resilient and transparent corporate governance framework that serves as the foundation for ethical business conduct, regulatory compliance, and long-term value creation. Recognizing the pivotal role of governance in driving sustainable growth, NHPC ensures that its governance practices are inclusive, accountable, and aligned with the expectations of a broad spectrum of stakeholders ranging from regulators and investors to employees, suppliers, customers, and the wider community.

The company has institutionalized a structured governance architecture, underpinned by a robust suite of policies and protocols that guide its operations and stakeholder interactions. These include the Code of Business Conduct and Ethics, Whistleblower Policy, Dividend Distribution Policy, and Stakeholder Engagement Policy, all of which are designed to foster transparency, integrity, and responsible decision-making across the organization.

NHPC adheres to the highest standards of corporate governance, ensuring full compliance with applicable statutory and regulatory frameworks such as the

Companies Act, 2013, SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, and the Corporate Governance Guidelines for Central Public Sector Enterprises (CPSEs) issued by the Department of Public Enterprises (DPE). The company also maintains a proactive approach to risk oversight and internal control, reinforcing its commitment to ethical governance and operational resilience.

Governance at NHPC is deeply integrated with its broader Environmental, Social, and Governance (ESG) strategy. The governance framework promotes timely and equitable disclosures, fosters a culture of accountability, and ensures that sustainability considerations are embedded into strategic and operational decision-making. Sustainability matters are overseen by the Committee of Directors on CSR and Sustainability, which reports to the Board. Through these efforts, NHPC continues to build stakeholder trust, enhance corporate reputation, and contribute meaningfully to national and global sustainability goals.



Residential Colony, Kishanganga Power Station, UT of J&K



## Board of Directors



NHPC Board of Directors at Annual General Meeting for FY 2024-25

Our effective governance mechanisms and consistent operational performance are steered by its well-structured one-tier Board of Directors. The Board functions as the central authority for strategic oversight and policy direction, ensuring that the organization adheres to regulatory standards and maintains high levels of transparency and accountability.



## NHPC Board Structure in FY 2024-25



**Shri Raj Kumar Chaudhary**

Chairman & Managing Director (CMD)<sup>1</sup>



**Shri Rajendra Prasad Goyal**

Director (Finance) & CFO<sup>2</sup>



**Shri Uttam Lal**

Director (Personnel)



**Shri Sanjay Kumar Singh**

Director (Projects)<sup>3</sup>



**Shri Mohammad Afzal**

Govt. Nominee Director



**Shri Premkumar Goverthan**

Independent Director



**Dr. Uday Sakharam Nirgudkar**

Independent Director<sup>4</sup>



**Dr. Amit Kansal**

Independent Director<sup>5</sup>



**Dr. Rashmi Sharma Rawal**

Independent Director<sup>5</sup>



**Shri Jiji Joseph**

Independent Director<sup>6</sup>

<sup>1</sup>Superannuated on 30.06.2025. Appointed as CMD w.e.f. 07.08.2024. Also held charge of Director (Technical) till 07.08.2024 and additional charge of Director (Projects) till 23.07.2024.

<sup>2</sup>Also held additional Charge of Chairman and Managing Director till 07.08.2024.

<sup>3</sup>Appointed w.e.f. 24.07.2024 and held additional charge of Director (Technical) from 08.08.2024.

<sup>4</sup>ceased w.e.f. 08.11.2024 and Reappointed w.e.f. 17.04.2025

<sup>5</sup>ceased w.e.f. 10.11.2024

<sup>6</sup>ceased w.e.f. 10.11.2024 and Reappointed w.e.f. 17.04.2025



The Board of Directors convened 12 meetings during the financial year 2024-25, demonstrating a high level of engagement and oversight. The meetings recorded an average attendance of 99.17%, reflecting the Board's strong commitment to governance responsibilities and strategic supervision.

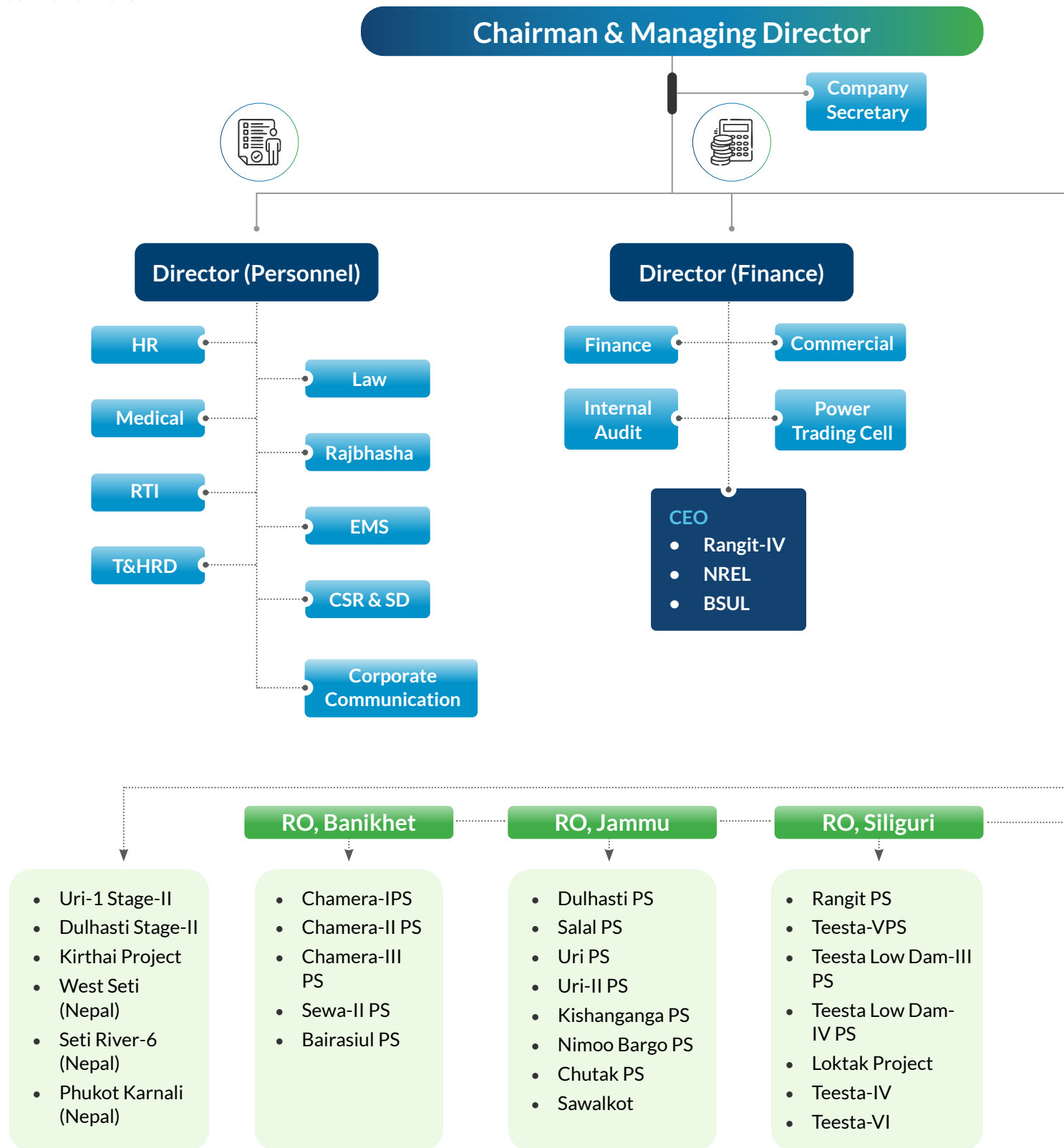
Comprehensive details regarding the meetings of the Board and its Committees including the number of meetings held and individual attendance records are provided in the Report on Corporate Governance, which forms an integral part of NHPC's Annual Report for FY 2024-25.

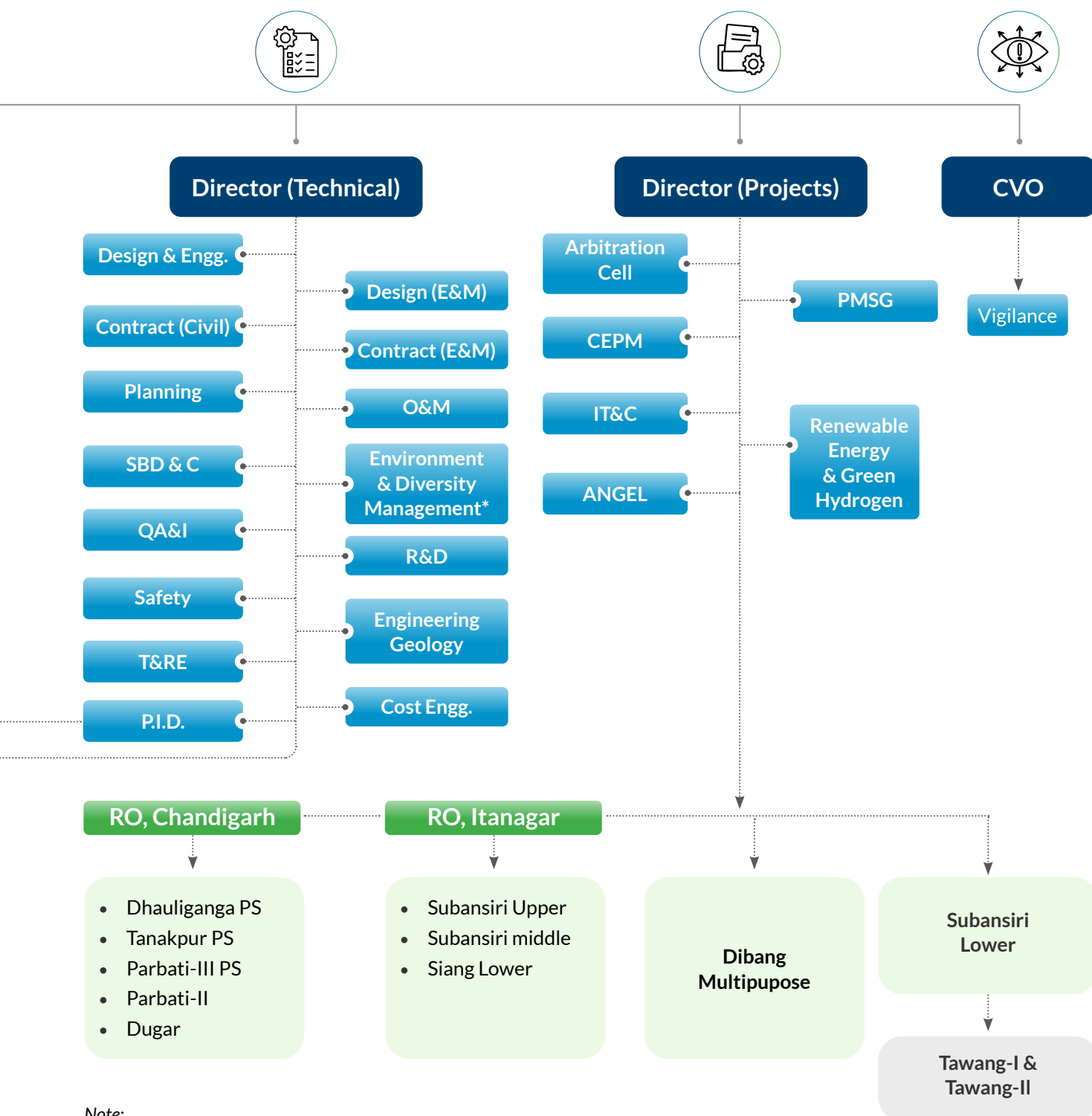


*CAG Audit Committee Meeting hosted at the Corporate Office, Faridabad*

# NHPC's Organizational Structure

as on 01.04.2025





**Note:**

- Regional EDs report to Director (Projects) for Construction Projects
- Regional EDs report to Director (Technical) for Power Stations and Survey & Investigation Projects.

\*The Environment & Diversity Management (EDM) Division consolidates ESG data and reports to the Executive Director (EDM/Planning), who briefs the Board-level Committee of Directors on Corporate Social Responsibility (CSR) and Sustainability

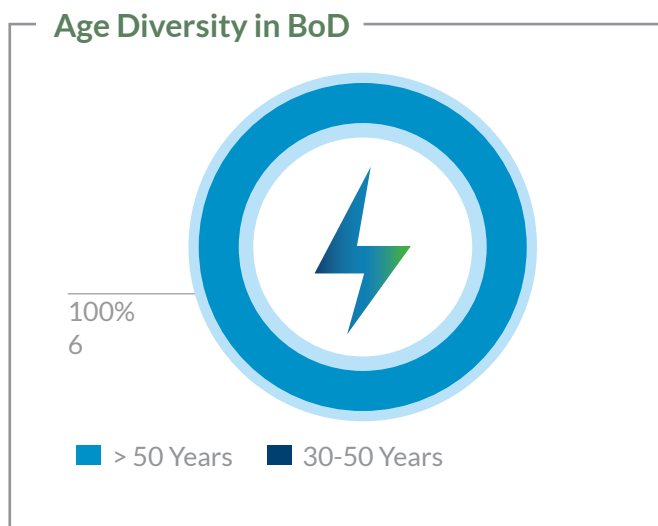
## Board Diversity

NHPC recognizes that a well-balanced Board encompassing a range of skills, experiences, and perspectives is vital to effective governance and long-term strategic success. The company views Board-level diversity as a key driver of innovation, resilience, and competitive advantage in a dynamic business environment.

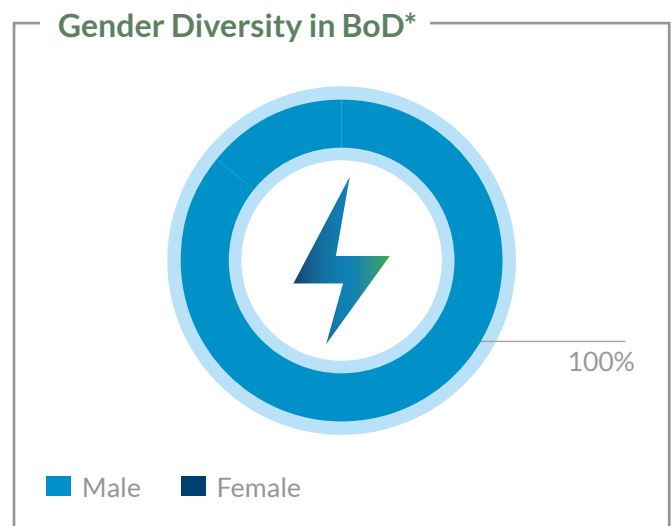
Board composition is guided by a holistic approach that considers multiple dimensions of diversity, including professional expertise, educational background, regional and industry experience, and gender. During the year, the Board comprised of one female director who ceased to be Independent Director w.e.f. 10<sup>th</sup> November 2024

after completion of specified tenure. NHPC remains committed to advancing gender diversity in future Board appointments, aligned with its Board Diversity Policy and global ESG expectations.

To formalize its commitment, NHPC has adopted a Board Diversity Policy that clearly defines the objectives and mechanisms for fostering a diverse and inclusive Board. This policy is periodically reviewed by the Nomination and Remuneration Committee (NRC) to ensure its continued relevance and effectiveness. Link to the Board Diversity Policy [https://www.nhpcindia.com/assests/pzi\\_public/gallery/16941667040.pdf](https://www.nhpcindia.com/assests/pzi_public/gallery/16941667040.pdf)



As on 31<sup>st</sup> March, 2025



As on 31<sup>st</sup> March, 2025

\* The Board comprised 1 female director till 9th November 2024.

## Board Committees: Strengthening Governance and Oversight

At NHPC, the Board of Directors serves as the apex governing authority, supported by a structured network of specialized committees that ensure focused oversight across critical governance domains. These Board Committees play a vital role in enhancing transparency, accountability, and regulatory compliance.

Key areas under committee supervision include audit and financial controls, risk management, stakeholder relationship, and corporate social responsibility (CSR). Through these committees, NHPC ensures informed decision-making, effective monitoring of strategic and operational risks, and alignment with statutory obligations and ESG best practices.



Nimmo Bagzo Power Station (Dam-Arial View), UT of Ladakh



## Details of Board Committee of NHPC (as on 31<sup>st</sup> March 2025)



### Audit Committee

Shri Premkumar Goverthan, Independent Director	Chairperson
Shri Mohammad Afzal, Govt. Nominee Director	Member
Shri Sanjay Kumar Singh, Director (Technical)	Ex-Officio Member
Shri Rajendra Prasad Goyal, Director (Finance)	Ex-officio invitee.



### Nomination & Remuneration Committee

Shri Premkumar Goverthan, Independent Director	Chairperson
Shri Mohammad Afzal, Govt. Nominee Director	Member
Shri Raj Kumar Chaudhary, Chairman & Managing Director	Member



### Risk Management Committee

Shri Premkumar Goverthan, Independent Director	Chairperson
Shri Rajendra Prasad Goyal, Director (Finance)	Ex-Officio Member
Shri Sanjay Kumar Singh, Director (Projects)	Ex-Officio Member



### Stakeholders' Relationship Committee

Shri Premkumar Goverthan, Independent Director	Chairperson
Shri Rajendra Prasad Goyal, Director (Finance)	Ex-Officio Member
Shri Uttam Lal, Director (Personnel)	Ex-Officio Member



### Committee of Directors on Corporate Social Responsibility (CSR) and Sustainability

Shri Premkumar Goverthan, Independent Director	Chairperson
Shri Rajendra Prasad Goyal, Director (Finance)	Ex-Officio Member
Shri Uttam Lal, Director (Personnel)	Ex-Officio Member
Shri Sanjay Kumar Singh, Director (Projects)	Ex-Officio Member



Rangit Power Station (Dam-Arial View), Sikkim

## Board Compensation & Evaluation

As a Central Public Sector Enterprise (CPSE), NHPC follows a structured and transparent approach to Board-level appointments and remuneration, in accordance with directives issued by the Government of India. The appointment, tenure, and compensation of the Chairman & Managing Director and Whole-Time Directors are determined by the Government of India, ensuring consistency with national governance frameworks.

Independent Directors are compensated through sitting fees for their participation in Board and Committee meetings, as permitted under the Companies Act, 2013. In

contrast, Government Nominee Directors do not receive any remuneration or sitting fees. The Board of Directors retains authority to set sitting fees for Independent Directors, within the statutory limits prescribed by the Companies Act and the Department of Public Enterprises (DPE) guidelines.

NHPC's employee remuneration structure including pay scales, allowances, and benefits is governed by applicable DPE policies, ensuring fairness, transparency, and alignment with public sector compensation norms.

### Details of Director remuneration for the Financial Year ended 31<sup>st</sup> March, 2025

Particulars	Compensation (INR) in FY 2024-25	
	Median	Mean
Total annual compensation of CMD	1,05,38,248	1,05,38,248
Annual compensation of all employees, except CMD	29,65,545	30,25,515
The ratio between the total annual compensation of the CMD and the employee compensation	3.55	3.48

The Ministry of Power (MoP) appraises the performance of each Functional Director using the DPE-prescribed methodology for evaluating top management in Central Public Sector Enterprises (CPSEs). Similarly, the performance of Nominee Director is assessed by their respective nominating authorities.

NHPC has adopted a formal Board Evaluation Policy, which outlines the procedures and criteria for conducting performance assessments. The policy can be accessed at the link: [https://www.nhpcindia.com/assests/pzi\\_public/gallery/17315740930.pdf](https://www.nhpcindia.com/assests/pzi_public/gallery/17315740930.pdf)



### As per the Policy, the following evaluation mechanisms were implemented during FY2024-25:

1. Every Director of the Company rate performance of the Board, Board level Committees and the individual Directors on pre-determined criteria.
2. The Nomination and Remuneration Committee reviews the performance of Independent Directors and the Board of Directors and determines whether to extend the term of the Independent Director.
3. Independent Directors review the performance of Non-Independent Directors, Chairperson of the Company and the Board as a whole.
4. Board evaluates the performance of Independent Directors, excluding the Director being evaluate

The performance evaluation of all Board Members, mandatory Board Committees, and the Board for FY 2024-25 was carried out during FY 2025-26, reinforcing NHPC's commitment to governance excellence and continuous improvement.

## Capacity Building for Board Members

NHPC places strong emphasis on continuous learning and capacity building for its Board members, including the Chairman & Managing Director (CMD) and other Directors. A formal Training Policy is in place to ensure that Directors remain well-informed and effective in fulfilling their governance responsibilities.

To support this, NHPC regularly nominates its Directors to participate in a range of professional development programs and conferences focused on corporate governance, director responsibilities, and emerging industry trends. These programs are conducted both internally and through reputed institutions such as the Department of Public Enterprises (DPE), Standing Conference of Public Enterprises (SCOPE), and the Indian Institute of Corporate Affairs (IICA).

During the reporting period, all Board of Directors, including the Chairman & Managing Director (CMD), participated in training sessions focused on critical governance topics such as the Code of Conduct to Regulate, Monitor and Report Trading by Designated Persons, Immediate Relatives, and Insiders, as well as the Code for Practices and Procedures for Fair Disclosure of Unpublished Price Sensitive Information (UPSI).

In addition, all Independent Directors completed a specialized training and awareness program on Business Responsibility and Sustainability Reporting (BRSR) Principles and emerging ESG topics, reinforcing their understanding of sustainability-linked governance responsibilities. One Independent Director also attended the IICA training on Effective Risk Governance and Boards, which covered key areas including Risk governance, corporate reporting, regulatory frameworks, ESG, sustainability, and CSR.

The Company Secretary (Key Managerial Personnel) also undertook both training modules covering insider trading regulations and BRSR principles to ensure alignment with evolving compliance and sustainability standards.

These initiatives are designed to enhance the Board's understanding of the evolving ESG landscape and its implications for NHPC's reputation, financial performance, and long-term value creation. The familiarization programmes for Independent Directors during the year are available on the website at: ([https://www.nhpcindia.com/asests/pzi\\_public/gallery/1746446299hi.pdf](https://www.nhpcindia.com/asests/pzi_public/gallery/1746446299hi.pdf))



Corporate Governance training held at Corporate Office, Faridabad



# Stakeholder Engagement

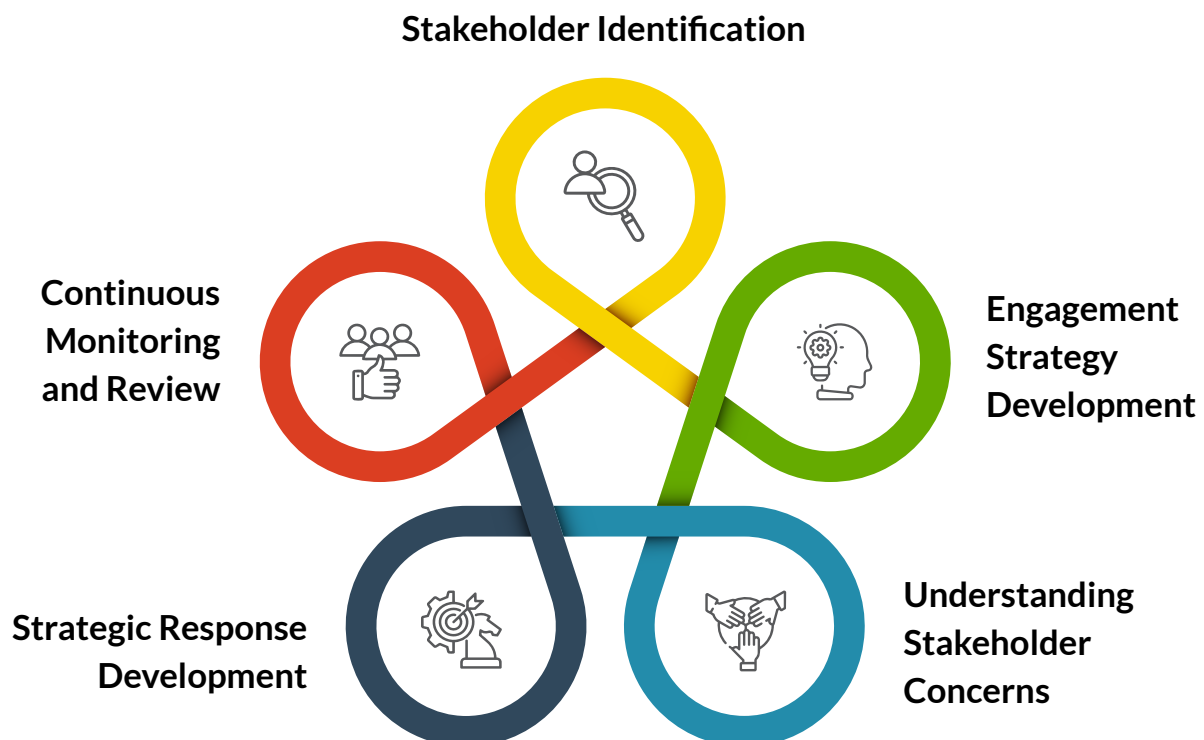
NHPC places strategic importance on stakeholder engagement, recognizing it as a cornerstone of sustainable development and responsible corporate governance. The company has implemented a structured and inclusive engagement framework designed to foster meaningful dialogue with a wide spectrum of stakeholders, including those who are disadvantaged, vulnerable, or marginalized. The stakeholder identification process encompasses key groups such as shareholders, investors, distribution companies (Discoms), employees, local communities, suppliers, contractors, government bodies, regulators, and media outlets. NHPC employs a rigorous methodology involving desk research, community needs assessments, peer benchmarking, and interviews with internal stakeholders to ensure comprehensive coverage and relevance.

This engagement process is designed to capture stakeholder concerns, inform strategic responses, and maintain transparent communication channels.

NHPC's approach is governed by its formal Stakeholder Engagement Policy, which outlines the principles and procedures for effective stakeholder interaction. Link to the policy <https://www.nhpcindia.com/assects/pzi-public/gallery/1703065928.pdf>

In line with its commitment to transparency and stakeholder trust, NHPC achieved a significant milestone in investor engagement during FY 2024-25. The company's investor (Equity) base expanded from 33.35 lakh (as on 31<sup>st</sup> March 2024) to 39.90 lakh (as on 31<sup>st</sup> March 2025), reflecting enhanced investor confidence and NHPC's proactive efforts to strengthen relationships with its financial stakeholders. This growth underscores the company's dedication to building long-term value and trust across its stakeholder ecosystem.

## Stakeholder Engagement Framework





Stakeholder Group	Mode of Communication	Frequency of Engagement
Government and Regulators	Calls and meetings with Government Officials, MOU, Seminars and interactions with associations and industry chambers	Continuous
Public/Investors	Filings Stock Exchange, Earnings conference, Calls and presentations, Investor and Analyst meets Annual Report, Annual General Meeting (AGM), Plant/Facility Visits	Monthly, Quarterly, Annual, Investors Mechanism Grievance
Board of Directors and Key Management Personnel	E-mails, Letters, Meetings etc.	Scheduled Board meetings
Distribution Companies (DISCOMs)	Meetings, E-mails, Power Purchase Agreements, Industry Meets	Monthly
Employees	Emails, Meetings, Company Intranet, Employee Grievance Mechanism, social media, Trainings and Awareness programs	Monthly
Communities	CSR Programs, Meeting with communities, Grievance redressal mechanism	Monthly
Suppliers and Contractors	Supplier meets, contract documents and agreements, workshops, training and awareness sessions	Monthly
Media	Media briefings, Press release, Company website, Social Media Platforms	Continuous
Employee Unions and Associations	Emails, Meetings, Company Intranet, Employee Grievance Mechanism, social media, Training and Awareness programs	Monthly



Parbati III Power Station (Dam), Himachal Pradesh

# Ethics, Integrity & Transparency

NHPC places ethics, integrity, and transparency at the core of its governance framework, recognizing these values as essential to building stakeholder trust, ensuring accountability, and supporting sustainable business practices. These principles are embedded across all levels of the organization and serve as the foundation for responsible decision-making and long-term value creation.

To uphold these standards, NHPC has implemented a comprehensive set of protocols and policies, including the Code of Conduct to Regulate, Monitor and Report Trading by Designated Persons and Immediate Relatives of Designated Persons and Insiders, and the Code of Business Conduct and Ethics for Board Members and Senior Management Personnel. Some of the codes apply to all personnel, management, non-management, and contractual and are designed to ensure consistent ethical behavior across the organization. Moving a step further in this direction, NHPC has included sexual harassment of women as misconduct under the NHPC (Conduct, Discipline and Appeal) Rules. In addition, the Company has implemented a Whistle Blower Policy to report instances of unethical or improper conduct, ensure timely investigation and corrective action, and provide adequate safeguards against the victimization of employees who raise concerns in good faith.

The Code of Business Conduct and Ethics mandates that Board Members and Senior Management operate within their defined authority, comply with applicable laws, and act in the best interests of the organization. It explicitly prohibits participation in decision-making processes where a conflict of interest may exist, thereby safeguarding independent judgment and organizational integrity. NHPC is firmly committed to preventing anti-competitive practices, money laundering, and insider trading, and ensures full compliance with all relevant legal and regulatory frameworks. These measures help protect the company's reputation and mitigate legal and operational risks.

In addition, NHPC upholds the principles of freedom of association and the right to collective bargaining, ensuring that employees and suppliers are not exposed to risks related to these rights. The organization guarantees non-interference in such activities, particularly when conducted outside regular working hours. NHPC also confirms that none of its operational entities pose risks related to child labour, forced labour, or compulsory labour, reinforcing its commitment to human rights and ethical employment practices.



Chutak Power Station (Dam at Winter), UT of Ladakh



## Vigilance Mechanism

NHPC has instituted a robust Vigilance Mechanism, anchored by its Whistle Blower Policy, to uphold ethical conduct, strengthen transparency, and safeguard organizational integrity. The vigilance function is designed to enhance productivity and efficiency by driving systemic improvements and promoting transparent, objective decision-making across operations. The mechanism empowers employees, senior management, contractors, and vendors to confidentially report unethical behavior, legal violations, or breaches of NHPC's Code of Conduct that may impact the company's operations, performance, or reputation.

The Vigilance Department is led by a Chief Vigilance Officer (CVO), an independent authority appointed

by the Government of India, to ensure transparency, objectivity, and quality in decision-making. All procedures for receiving, monitoring, and disposing of vigilance complaints and disciplinary cases are formally documented, and a senior-level officer coordinates implementation of the Whistle Blower Policy and management of reported concerns. The Department coordinates with the Ministry of Power, Central Vigilance Commission (CVC), Central Bureau of Investigation (CBI), Department of Personnel and Training (DoPT), and other relevant government agencies. To strengthen assurance, the Bureau of Indian Standards (BIS) conducted a surveillance audit of vigilance processes in FY 2024-25, which concluded satisfactorily.



*Apex Union Meeting held at Corporate Office, Faridabad*

The Whistle Blower Policy provides clear procedures, safeguards, and direct access to the Chairperson of the Audit Committee, ensuring transparency and protection for whistleblowers. In FY 2024-25, no individual was denied access to the Audit Committee, and no complaints were received under the policy; identities of whistleblowers are strictly protected to prevent

retaliation or discrimination. NHPC has also implemented a Fraud Prevention & Detection Policy to proactively identify, prevent, and address instances of fraud or suspected fraud, with enterprise-wide dissemination and access via internal platforms.

Whistle Blower Policy - [https://www.nhpcindia.com/assets/pzi\\_public/gallery/1683188102.pdf](https://www.nhpcindia.com/assets/pzi_public/gallery/1683188102.pdf)

There are no vigilance cases pending for disposal during FY 2024-25, except one case related to disproportionate assets, which is sub judice. As part of preventive vigilance, NHPC regularly issues circulars and guidelines informed by inspections and intensive examinations. The Company

also conducts Vigilance Awareness Week observances, targeted trainings, and other vigilance awareness programmes to promote transparency, strengthen ethical culture, build internal capacities, and address sector-specific challenges.



*Nukkad Natak organized during Vigilance Awareness Week at Corporate Office, Faridabad*

## Reporting on Breaches reported through Whistleblower Policy and Vigilance Mechanism

Reporting areas	Number of breaches
Corruption and Bribery	0
Discrimination or Harassment	0
Customer Privacy Data*	0
Conflicts of Interest	0
Money laundering	0
Insider Trading**	0
Total	0

\*NHPC does not store sensitive customer (DISCOM) data, hence such an instance of breach is not applicable.

\*\*Nil complaints of Insider trading at a company level

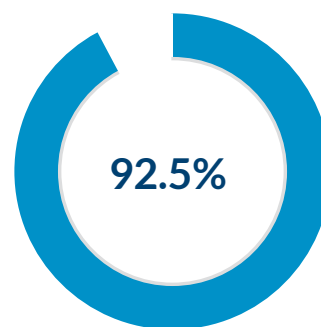


## Grievance Redressal Mechanism

NHPC maintains a proactive and responsive grievance redressal framework, ensuring timely resolution of stakeholder concerns and reinforcing its commitment to transparency and accountability. During FY 2024-25, NHPC successfully resolved 100% of investor and shareholder complaints, and 98.83% of public grievances received through the Centralised Public Grievance Redressal & Monitoring System (CPGRAMS), integrated with the Ministry of Power.

As part of its preventive vigilance efforts, NHPC regularly issues circulars and guidelines based on findings from inspections and detailed examinations, aimed at strengthening internal controls and promoting ethical conduct. Stakeholders are actively encouraged to provide feedback and raise concerns related to Principles 1 to 9 of the National Guidelines on Responsible Business Conduct (NGRBC).

To assess service quality and stakeholder satisfaction, NHPC conducts annual Beneficiary Satisfaction Surveys targeting DISCOMs. In FY 2024-25, NHPC achieved a Beneficiary Satisfaction Score of 92.5%, reflecting high levels of trust and satisfaction.

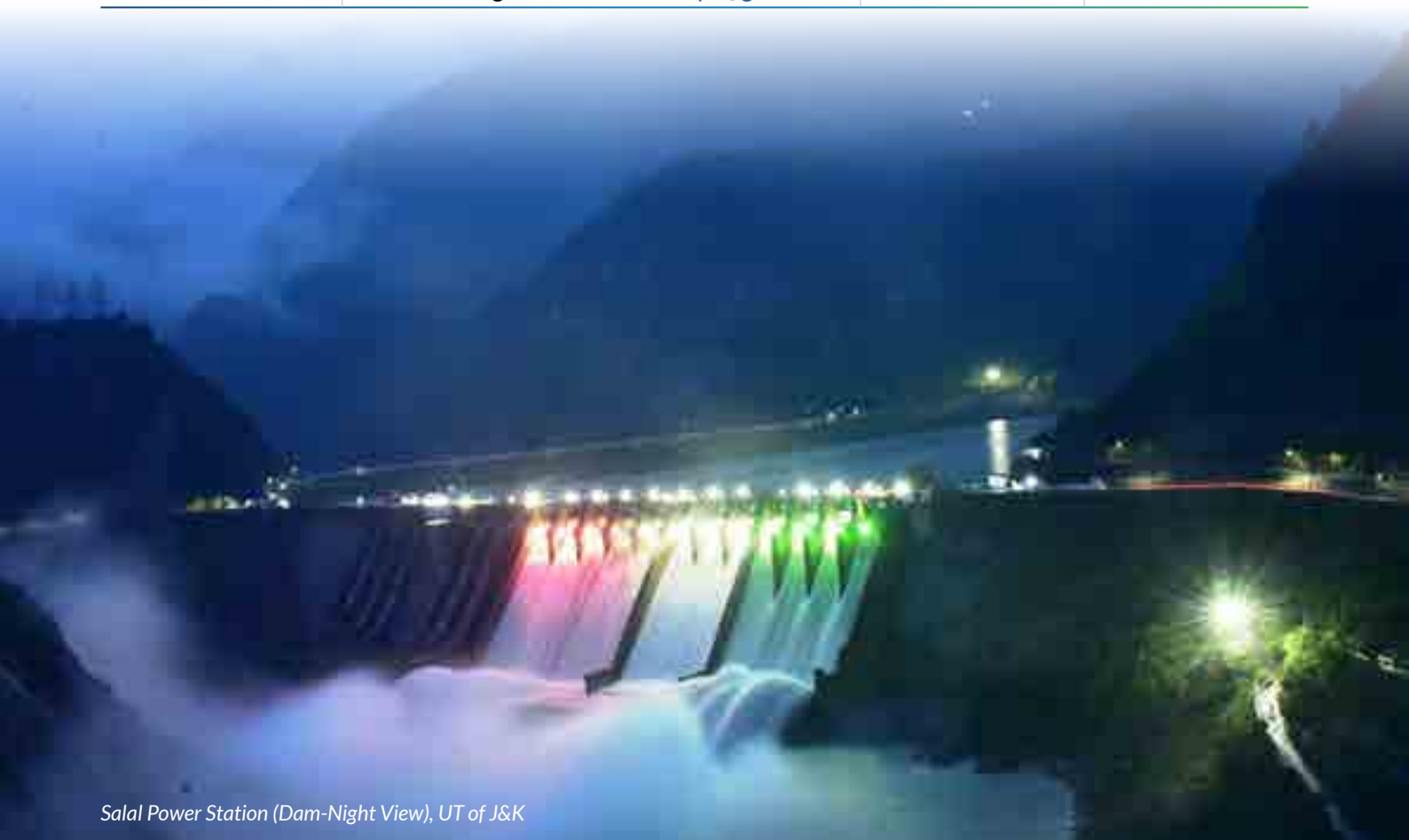


Beneficiary Satisfaction Score (DISCOMs)

## Complaints reported by Stakeholders

Stakeholder group	Grievance Redressal Mechanism	FY 2024-25	
		Number of complaints filed during the year	Number of complaints pending resolution at close of the year
<b>Communities</b>	Yes, CPGRAMs web-portal of Govt of India is being used for disposal of public grievances by HR Division. The web link of CPGRAMS is: <a href="https://www.pgportal.gov.in/">https://www.pgportal.gov.in/</a>	171	2
<b>Investors (other than shareholders)</b>	Yes. The details of contact person for the redressal of various grievances are provided in the link below <a href="https://www.nhpcindia.com/welcome/page/145">https://www.nhpcindia.com/welcome/page/145</a>	28	0
<b>Shareholders</b>	Yes. Shareholders can send their grievances to Company/RTA directly through email/letter. The shareholders can also lodge their grievances through SEBISCORES portal, Stock Exchanges and SMART Online Dispute Resolution Portal (ODR). The details for grievance redressal for equity shares and bonds are provided in the link below: <a href="https://www.nhpcindia.com/welcome/page/145">https://www.nhpcindia.com/welcome/page/145</a>	468	0
<b>Employees and workers</b>	Yes, NHPC has an 'Employee Grievance Redressal Cell' in place. The details of contact person are provided on the link below: <a href="https://www.nhpcindia.com/assests/pzi_public/gallery/1710398701.pdf">https://www.nhpcindia.com/assests/pzi_public/gallery/1710398701.pdf</a>	7	1

Stakeholder group	Grievance Redressal Mechanism	FY 2024-25	
		Number of complaints filed during the year	Number of complaints pending resolution at close of the year
Customers	Power Sector is a regulated market and the power sold to the customer and the tariff at which electricity is sold to the customer falls under the ambit of various Regulations issued by various MoP, CERC and SERC under the powers conferred to them under Electricity Act, 2003 and amendments thereof. NHPC ensures compliance to these regulations in supplying of power to their customers from various power stations and strives to have cordial relationship with their customers. <a href="https://www.nhpcindia.com/assests/pzi_public/gallery/1710398701.pdf">https://www.nhpcindia.com/assests/pzi_public/gallery/1710398701.pdf</a>	0	0
Value Chain Partners	Yes, Integrity Pact is being implemented in NHPC. Bidders may raise their grievances regarding tenders to Independent External Monitors (IEMs), if any. The details of IEMs are being provided in tender documents as well as available on the following link: <a href="https://www.nhpcindia.com/assests/pzi_public/gallery/1710398701.pdf">https://www.nhpcindia.com/assests/pzi_public/gallery/1710398701.pdf</a> The email for grievances is <a href="mailto:iem.nhpc@gmail.com">iem.nhpc@gmail.com</a>	14	1



Salal Power Station (Dam-Night View), UT of J&K

# Policy Framework & Accountability

NHPC identifies risk of its commitment to ethical conduct, operational excellence, and sustainable development through a comprehensive suite of policies and accountability mechanisms. These policies serve as guiding frameworks for the behavior and decision-making of employees, Board members, and stakeholders, ensuring that all actions are aligned with the organization's core values and strategic objectives.

Each policy is designed to promote transparency, accountability, and integrity, while also supporting

compliance with applicable legal and regulatory requirements. Beyond governance, these policies reflect NHPC's dedication to environmental stewardship, social responsibility, and corporate sustainability.

Below is a brief overview of the key policies that underpin NHPC's ethical and responsible business practices. Detailed descriptions and links to each policy are provided in relevant sections of this report.



## Environmental Stewardship Policies

- **Conservation of Energy Policy** - Promotes energy efficiency and reduced consumption across operations to support sustainability and cost-effectiveness.
- **Biodiversity Policy** - Focuses on preserving ecological balance through responsible resource use and habitat conservation.
- **Corporate Environment Policy** - Guides NHPC's commitment to minimizing environmental impact and advancing eco-friendly practices.
- **Waste Management Policy** - Establishes protocols for waste reduction, recycling, and safe disposal to ensure responsible operations.
- **Water Conservation Policy** - Encourages sustainable water use and outlines strategies to reduce consumption across NHPC's facilities.



## Social Responsibility and Human Capital Policies

- **Human Rights Policy** - Commits to upholding dignity, fairness, and respect across NHPC's operations and supply chain.
- **Safety Policy** - Ensures a safe working environment through preventive measures and safety protocols.
- **Sustainable Procurement/Sourcing Policy** - Promotes ethical and environmentally responsible sourcing practices across procurement activities.
- **Social Accountability Policy** - Reinforces NHPC's commitment to ethical labor practices and community engagement.



## Governance and Ethical Conduct Policies

- **Equal Opportunity Policy** - Ensures fair treatment and inclusivity in recruitment and employment, regardless of background.
- **CSR & Sustainability Policy** - Defines NHPC's approach to creating positive societal and environmental impact through responsible business practices.
- **Stakeholder Engagement Policy** - Structures meaningful engagement with stakeholders, including vulnerable groups, to assess material impacts.
- **Fraud Prevention and Detection Policy** - Implements controls to identify and address fraudulent activities, promoting integrity and accountability.
- **Anti-Corruption & Anti-Bribery Policy** - Establishes a zero-tolerance stance on unethical practices, ensuring compliance and ethical conduct.
- **Public Policy Advocacy Policy** - Guides NHPC's participation in policy discussions, ensuring alignment with strategic and ethical objectives.
- **Code of Business Conduct and Ethics** - for Board Members and Senior Management Personnel - Sets ethical standards for Board and senior management, emphasizing transparency and responsible leadership.
- **Enterprise Risk Management Policy** - Provides a framework for identifying and mitigating risks to support sustainable growth and compliance.
- **Prevention of Sexual Harassment SOP** - Defines procedures to prevent and address harassment, ensuring a respectful and secure workplace.



# Powering Innovation, Research and Development

NHPC continues to demonstrate its commitment to innovation and sustainability through a robust and forward-looking Research and Development (R&D) program. The company's R&D efforts are strategically focused on integrating cutting-edge technologies to address environmental challenges, enhance infrastructure resilience, and support inclusive economic growth.

NHPC's in-house design and engineering capabilities continue to be a strategic asset, enabling cost-effective project execution and reducing reliance on external consultants. The organization remains at the forefront of deploying advanced geophysical exploration techniques such as Tunnel Seismic Prediction, Tomography, and Resistivity Imaging, which support data-driven decision-making and continuous improvement.

In addition to technological innovation, NHPC's capital expenditure on project development and construction

activities plays a vital role in enhancing the socio-economic and environmental landscape of surrounding communities. These investments generate livelihood opportunities during the construction phase and contribute to long-term employment and regional development during the operational phase through induced economic effects.

Through these initiatives, NHPC reinforces its commitment to sustainable development, stakeholder value creation, and ESG excellence, while supporting India's clean energy transition and climate resilience goals. During FY 2024-25, NHPC incurred an expenditure of INR 22.64 crore on R&D activities, including INR 9.66 crore towards establishment expenses. This investment reflects our long-term commitment to building a robust, future-ready energy infrastructure that supports India's clean energy transition.



Solar Power Project, Tamil Nadu

## R&D Projects Completed in FY 2024-25

### Optimization of Earthmat Design by Resistivity Imaging Technique

NHPC is using 3 D resistivity imaging to get continuous subsurface profiles in rocky terrains, enabling safer and more economical earth mat designs versus spot readings. The work reduces material over design and improves grounding reliability.

## Ongoing R&D initiatives

### Development of Inflow Forecasting System – Chamara III

A near real time catchment inflow forecasting solution to strengthen dam safety, unit scheduling and downstream coordination; LOA issued, supplies awaited.

### Pilot Green Hydrogen Mobility Station – Chamba (HP)

A fuel cell mobility pilot to cut GHG and noise in hilly urban terrain, while building local operations and maintenance capabilities for future fleet scale up.

### Pilot Green Hydrogen Mobility Station – Kargil (UT of Ladakh)

Cold desert deployment of fuel cell mobility to validate performance, fueling logistics and maintenance under extreme climate; results will guide high altitude fleet adoption.

### Pilot Green Hydrogen Fuel Cell Micro Grid (25 kWe) – NBPS Guest House, Leh

A fuel cell micro grid for reliable, low carbon power at high altitude, building NHPC capability for RE coupled micro grids and campus applications.

### GLOF – Monitoring, Ranking & Early Warning Methodology

NHPC and NRSC (ISRO) are mapping ~3,200 glacier lakes across 8 catchments/26 projects; a report for 753 lakes (>5 ha) is under preparation and a second for 1,411 lakes submitted. Outputs enable EWS methodology and climate risk resilience.

### Modification of Trench Weir at Bhaledh (Bairasiul PS)

Design–manufacture–erection of modified trash racks with civil retrofits to stop boulder induced choking, improving impounding capacity into the Bhaledh Feeder Tunnel and stabilizing inflows.

### Generation Capacity Enhancement – Tanakpur Power Station

Runner blade profile optimisation to recover output at revised net head (~21m) without major E&M overhaul, improving generation and PAF; under tendering.

### Bolted Runner Technology to Mitigate Silt Erosion – Rangit PS

Adoption of bolted blade runners for severe silt regimes enables blade only removal and full hard coating, reducing downtime and repair logistics; under tendering.

### Archimedes Screw Turbines – Sewa II (Dam e flow & TRT outlet)

Low head screw turbines will harness mandatory e flows at the dam and residual head at the TRT outlet to power auxiliaries/ lighting, raising saleable energy and lowering carbon footprint; under tendering.

### Minimizing Damage via Faster Decay of Fault Current (Stator Phase to Phase)

NHPC and IIT Roorkee are developing techniques & models to shorten fault current duration, protecting stator bars/components and reducing outage severity; preliminary draft submitted, lab validation planned.

### Himalayan GMPE (Himalaya Specific Attenuation Relationship) – Phase 2

Refinement of Himalaya specific attenuation using sanitized strong motion records from NHPC's network, improving seismic hazard inputs for dam safety and underground works.

### Micro hydro using Mandatory e flow – Parbati III (PAT Pilot)

A Pump as Turbine pilot at the dam exit will convert e flows into reliable auxiliary power and reduce on site fossil use; technical specs & QAP are being finalized.

### Online Transformer Dry out System – Teesta Low Dam Project IV

In service moisture removal to enhance insulation life and reduce transformer outages; bids opened and under evaluation.

### Online Monitoring of Generator Transformer Health – Salal PS

A unified online monitoring system will provide predictive insights to prevent severe failures and support centralized analytics; under tendering.

### 3D FEM Design Guidelines/ Charts – Quick Estimation of Cavern Behaviour & Support

Preparation of 3D FEM based charts to rapidly estimate cavern response and support layout, accelerating safe and economical decisions for tunnels and caverns.

### Partial Discharge (PD) Monitoring Solutions for High Voltage Apparatus

Roll out of online PD diagnostics to catch insulation incipient faults in generators/transformers early, enabling predictive maintenance and lowering forced outage risk.

### Online Condition Monitoring – Transformer Bushings & Coupling Capacitors (with Online PD for Generators)

Continuous health monitoring of bushings/coupling capacitors integrated with generator PD trending will enhance asset health visibility and optimize maintenance windows.

## New R&D initiatives

### AI/ML Driven Performance Analytics – Jaisalmer Wind Park

A comprehensive AI/ML data analytics initiative to detect under performance, predict failures and optimize energy yield across turbines in desert conditions, strengthening renewable asset reliability.

## Key initiatives undertaken in FY 2024-25 include:

### Green Hydrogen Pilot Projects (Chamba, Kargil, Leh) – Ongoing

Decarbonizes auxiliary power and mobility, enables integration with renewables and microgrids, and advances India's net-zero goals while building internal capability for future scale-up.

### Glacial Lake Outburst Flood (GLOF) Monitoring and Early Warning

Ongoing (with NRSC) Climate resilience and community safety initiative using satellite data to prioritize risky lakes and develop Early Warning System, reducing disaster risk across Himalayan projects.

### AI/ML Performance Optimization for Jaisalmer Wind Farm

Ongoing (with IIT Delhi) Data-driven tuning to recover underperformance and lift capacity factor without new build, supporting long-term operational sustainability.

### Fast Fault Current Mitigation in Generators

Ongoing (with IIT Roorkee) Techniques to reduce phase to phase fault duration, cutting fire and outage risks, protecting people and assets, and improving availability.



Loktak Power Station (Ithai Barrage), Manipur



# Partnering for Progress

NHPC advances safety, reliability, and innovation through strategic academic and institutional partnerships.

Ongoing Collaborations - Active projects focus on risk monitoring, grid safety, design optimization, condition monitoring, and performance analytics.

## Collaboration with National Remote Sensing Centre (NRSC), ISRO



NHPC is partnering with NRSC to monitor Glacial Lake Outburst Flood (GLOF) risks across 26 hydropower stations in nine river basins. The collaboration covers satellite-based monitoring of glacial lakes, joint ranking and prioritization of risk, and development of an Early Warning System methodology. Approximately 3,200 potential glacial lakes have been identified in eight catchments of 26 projects, including 753 lakes above 5 ha. The first report for lakes above 5 ha is being framed with NRSC, and a second report covering 1,411 lakes has been completed and submitted to NRSC.

## Collaboration with NIT Durgapur



NHPC and NIT Durgapur are developing indigenous partial discharge monitoring solutions for high-voltage electrical apparatus. Flange-mounted UHF sensors have been developed and third-party tested; development of drain valve sensors for transformers, UHF barrier sensors for GIS, and analyzers is in progress. A parallel project is creating online condition monitoring solutions for transformer bushings and coupling capacitors to enable on-line partial discharge monitoring of generators; market survey and sensor development are underway.

## Collaboration with IIT Roorkee



NHPC and IIT Roorkee are working on multiple initiatives: an inflow forecasting system for Chamera-III Power Station (with equipment procurement underway); research to minimize damage from phase-to-phase short-circuit faults by reducing fault current duration and validating solutions in IIT Roorkee's Hydro Power Simulation Laboratory (preliminary draft report submitted); and refinement of Himalaya-specific Ground Motion Prediction Equations using NHPC's Strong Motion Accelerograph network data to enhance seismic hazard estimation for Himalayan projects (project in progress).

## Collaboration with IIT Kanpur



Under an MoA, NHPC and IIT Kanpur are developing design guidelines and charts for quick estimation of underground cavern behavior and support layouts using advanced 3D FEM analysis. The objective is safe, economical design without extensive computational modeling. IIT Kanpur has submitted the final draft report, which is under evaluation. The MoA also provides for training, R&D, and advisory support in hydro, hydrology, water resources, geology, earthquake engineering, renewable energy, and environmental management.



Residential Colony of Chamera-I PS (Aerial View), Himachal Pradesh

## Collaboration with IIT Delhi



NHPC has engaged IIT Delhi to apply AI/ML tools for in-depth performance analytics of wind turbines at the 50 MW Jaisalmer Wind Project. The study aims to identify underperformance, optimize operating parameters, and improve energy yield and long-term operational sustainability. Technical data for all turbines has been collected, and preliminary investigations are in progress.

New Collaborations - Recently signed MoAs expand training, R&D, advisory support, and indigenous equipment development.

## MoA with MRSPTU, Bathinda



Through an MoA with MRSPTU, Bathinda, NHPC receives training, research, development, and advisory support across hydro, hydrology, water resources, geology, earthquake studies, renewable energy, and environmental management to strengthen technical capabilities.

## Strategic Cooperation with BEML Limited, Bengaluru



NHPC and BEML have entered into a strategic cooperation MoA to jointly pursue R&D for de-silting and dredging (short- and long-term requirements), and to undertake indigenous design, development, manufacture, testing, and product support for related machinery, along with other mutually agreed project activities.

## MoA with CSIR-CGCRI, Kolkata



NHPC has signed a MoA with CSIR-CGCRI for training, research, development, and advisory services in sensors and instrumentation, structural health monitoring, process monitoring, condition monitoring of electrical machines, and plant automation, supporting technology absorption and operational reliability.

## MoA with IIT Guwahati



NHPC's MoA with IIT Guwahati provides for training, research, development, and advisory services in hydro, hydrology, water resources, geology, earthquake studies, renewable energy, and environmental management, advancing knowledge sharing and capacity building.

## Collaborative Research Framework with Ministry of Power and CPSUs (NTPC, PGCIL, PFC, REC)



A joint corpus established with the Ministry of Power and CPSUs, including NTPC, PGCIL, PFC, and REC, funds studies and research on policy initiatives, reforms, and restructuring to support the power sector's growth. Under this framework, NHPC is undertaking collaborative research to inform evidence-based policy formulation and sector development.



Chamera I Power Station (Dam), Himachal Pradesh

# Risk Management

NHPC's enterprise-wide risk management framework is a critical component of its governance structure, designed to ensure operational continuity, financial stability, and long-term stakeholder value. The organization adopts a proactive and structured approach to identifying, assessing, and mitigating risks that may impact its strategic objectives, environmental performance, and social commitments.

A dedicated Risk Cell at the Corporate Office leads the implementation of NHPC's Enterprise Risk Management (ERM) Framework, which is governed by the Risk Management Committee and supported by the Enterprise Risk Management Policy. This framework enables consistent oversight across all operational sites and project locations, ensuring that risk governance is embedded at every level of decision-making.

## Risk Governance Approach

### Risk Identification:

NHPC employs a multi-pronged methodology to identify risks, including brainstorming sessions, stakeholder consultations, working groups, documented experiential knowledge, historical data, and lessons learned. All identified risks are recorded in a centralized Risk Register, providing senior leadership with a comprehensive and transparent view of enterprise-level exposures.



### Risk Assessment:

Risks and opportunities are screened qualitatively and, where applicable, assessed quantitatively. Descriptive scales are used to evaluate the likelihood of occurrence and potential impact, enabling prioritization and informed resource allocation. This process supports strategic planning and enhances NHPC's ability to respond to emerging risks.



### Risk Treatment:

NHPC applies a balanced and adaptive approach to risk mitigation, including:

- Risk Avoidance or Termination
- Risk Reduction or Mitigation
- Risk Acceptance and Tolerance
- Risk Transfer

These strategies are tailored to the nature and severity of each risk, ensuring that mitigation efforts are both effective and aligned with organizational priorities.

NHPC's risk management practices are closely integrated with its commitments to ethical conduct, regulatory compliance, environmental stewardship, and stakeholder engagement. The framework supports the company's efforts to deliver sustainable energy solutions while managing sector-specific challenges such as climate-related risks, policy shifts, and operational uncertainties. By embedding risk governance into its strategic and operational processes, NHPC reinforces its dedication to transparency, accountability, and continuous improvement, contributing to a resilient and future-ready energy ecosystem.



## Risk Identification and Management

NHPC adopts a structured and proactive approach to risk identification, integrating insights from internal stakeholder consultations and strategic discussions with Senior Management. This process is anchored in NHPC's Risk Management Policy, which is designed to instill confidence in achieving both organizational and shareholder objectives. The policy supports NHPC's long-

term competitiveness and sustainability by enhancing operational efficiency and resilience.

The Enterprise Risk Management (ERM) system is comprehensive, covering all corporate activities and providing clear guidelines for identifying, measuring, reporting, controlling, and mitigating risks. NHPC classifies risks into four primary categories:



### Strategic Risks

Potential losses arising from business factors that hinder the achievement of strategic objectives and reduce overall enterprise value.



### Financial Risks

Risks that impact the organization's financial health, including balance sheet integrity and access to capital.



### Operational Risks

Risks stemming from inadequate or failed internal processes, systems, or human factors.



### Compliance Risks

Risks related to non-compliance with legal, regulatory, and statutory obligations.

The detailed risk categories and mitigation strategies are outlined in NHPC's Enterprise Risk Management Policy, 2024, available on the company's website for public reference and stakeholder engagement: NHPC ERM Policy [https://www.nhpcindia.com/assests/pzi\\_public/gallery/17393621500hi.pdf](https://www.nhpcindia.com/assests/pzi_public/gallery/17393621500hi.pdf)

## Risk Governance Framework

NHPC has instituted a robust risk governance framework aligned with the globally recognized Three Lines Model, ensuring effective identification, assessment, and mitigation of risks across all categories. In line with DPE guidelines for Central Public Sector Enterprises, the Board ensures the risk management system is integrated

and aligned with corporate and operational objectives, and that risk management is embedded in day-to-day business practices rather than treated as a periodic, stand-alone exercise. This framework is supported by a multi-tiered structure comprising:

### Risk Management Committee (RMC) -

A Board-level committee constituted in accordance with SEBI (LODR) Regulations, responsible for overseeing risk policies, evaluating key risks, and ensuring the effectiveness of the risk management system. The committee is chaired by Shri Premkumar Goverthanam, Independent Director (Appointed as Chairperson and member of the Committee w.e.f. 10.11.2024.).

### Risk Assessment Committee (RAC) -

Reviews identified risks and mitigation strategies and supports the RMC in strategic decision-making.

### Risk Cell -

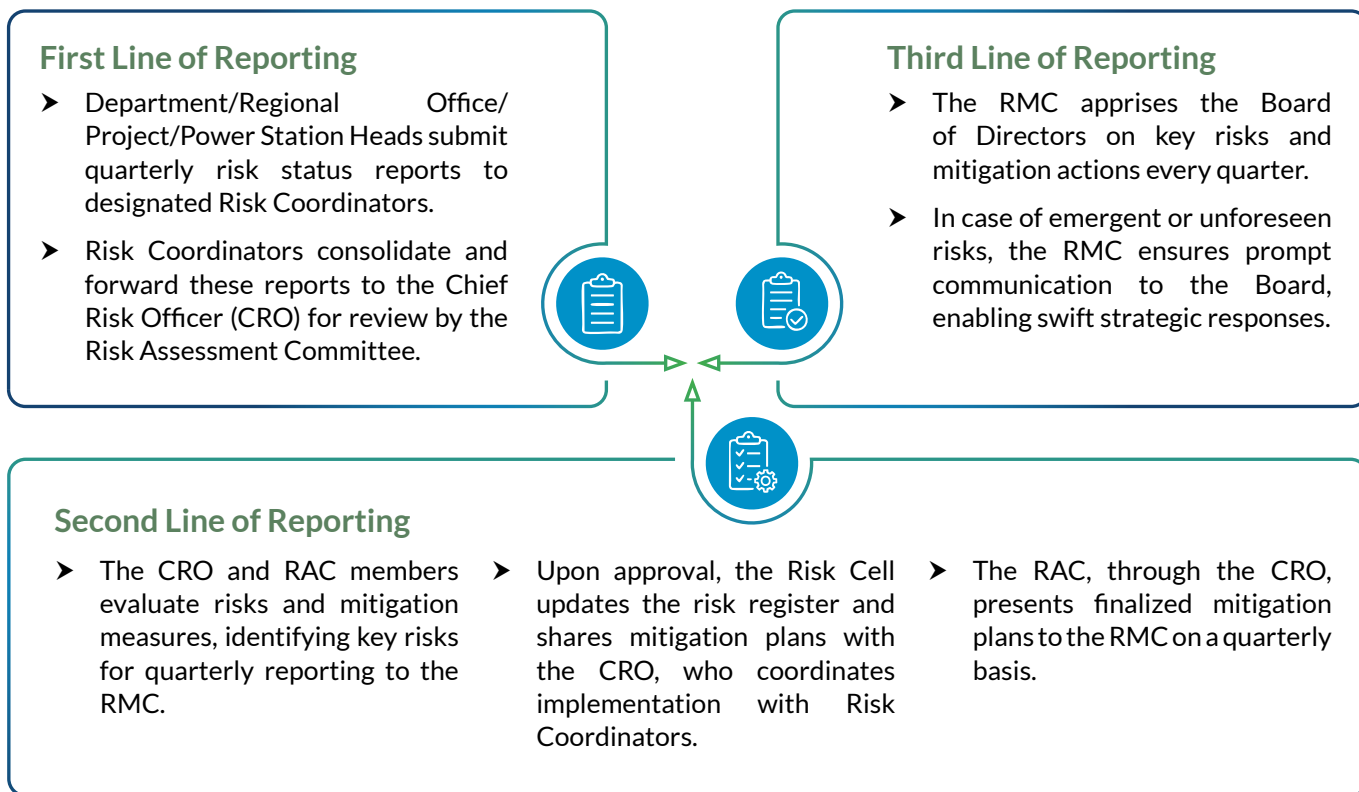
Maintains the risk register and facilitates implementation of mitigation plans across departments

This governance structure ensures transparency, accountability, and independent oversight, reinforcing NHPC's commitment to ethical conduct and stakeholder trust.



## Risk Reporting Structure

NHPC follows a three-tiered risk reporting mechanism to ensure timely and accurate communication of risk-related information:



This structured reporting framework ensures risk transparency, timely escalation, and effective governance across all levels of the organization.

## Risk Culture and Capacity Building

NHPC fosters a strong risk-aware culture, embedding core principles of risk management into its operational and strategic processes. This includes:

- Proactive risk identification
- Timely risk discussions
- Rigorous implementation of mitigation strategies

The Risk Assessment Committee's de-risking strategies are reviewed annually by the RMC to ensure alignment with NHPC's evolving risk landscape. To build organizational capacity, NHPC conducts regular training and awareness programs for employees, including specialized sessions for Independent and Non-Executive Directors on the company's risk management strategy.

NHPC's risk framework also addresses emerging ESG-related risks, such as:

- Climate risk
- Market volatility
- Regulatory changes
- Human rights and social license to operate

Through internal and external assurance activities, NHPC continuously tests the effectiveness of its internal control systems, receives expert recommendations, and drives improvements in its risk management framework. This ongoing commitment to compliance, resilience, and strategic foresight enables NHPC to manage risks effectively and achieve its long-term sustainability goals.

## Emerging Risks

NHPC remains vigilant in identifying and addressing emerging risks that could significantly impact its long-term business continuity, operational resilience, and stakeholder value. These risks are assessed through

structured processes and integrated into NHPC's Enterprise Risk Management (ERM) framework, ensuring alignment with global ESG standards and regulatory expectations.

### Fire Damage to Structures and Vital Installations

NHPC recognizes fire hazards as a critical emerging risk, particularly concerning damage to vital infrastructure and operational assets. To mitigate this risk, NHPC has implemented a comprehensive Fire Protection Program (FPP), which includes:

Designation of dedicated personnel responsible for managing and implementing fire safety protocols.	Development of administrative policies, standard operating procedures, and training modules to enhance fire safety awareness among plant personnel.	Provision of adequate firefighting equipment, smoke masks, and protective gear at all power stations.
Regular inspection, testing, and maintenance of fire protection systems to ensure operational readiness.	Installation of automated fire detection, alarm, and suppression systems, including fire water supply networks, sprinklers, and water spray systems.	Manual suppression capabilities such as portable extinguishers, standpipes, hydrants, and hose stations.
Conducting routine fire drills to train employees in emergency response procedures.	Establishment of alternate escape routes, especially near transformer galleries, with proper ventilation to safeguard human life.	Availability of emergency medical aid and ambulance services at all project sites.
Formulation of disaster management plans for each power station, supported by a nodal disaster management committee at the corporate level.	Implementation of an Environmental, Health, and Safety (EHS) management system to monitor non-compliance, inspection schedules, audit outcomes, and corrective actions.	Ensuring fire tenders are fully operational and on high alert at all times.
Securing insurance coverage for assets to indemnify against potential fire-related losses.	<p>These measures reflect NHPC's commitment to operational safety, employee well-being, and resilience against environmental and infrastructure-related risks.</p>	

## Risk of Flooding and Geological Instability

NHPC identifies risk of flooding, dam failure due to extreme weather events, and geological instability such as landslides, rockfalls, and slope failures as significant long-term risks. These risks are exacerbated by climate change, making them a priority within NHPC's risk mitigation strategy.

To address these challenges, NHPC has adopted the following measures:

Securing natural calamity risk insurance for all projects and power stations to cover potential losses.	Development of site-specific Disaster Management and Emergency Action Plans, overseen by a nodal disaster management committee.	Conducting regular training workshops and quarterly emergency drills to reinforce disaster preparedness.
Integration of NHPC's disaster management plans with the respective State Master Disaster Management Plans for coordinated response.	Establishment of gauge and discharge monitoring sites upstream of dams to provide early warnings and enable timely flood response.	Implementation of operational protocols such as shutting down powerhouses when sediment concentration exceeds permissible limits and closing intake gates during reservoir flushing.
Installation of Advanced Flood Warning Systems and Automatic Water Level Recorders (AWLRs) to monitor water levels and predict flood behavior.	Pre- and post-monsoon inspections by the Dam Safety Team to assess structural integrity and implement remedial actions.	Deployment of design enhancements and broad operating procedures to mitigate risks from natural disasters.
Availability of emergency medical services and ambulances at all project locations.	Maintenance of an Asset Integrity Checklist for each plant, supported by historical data for compliance tracking.	Collaboration with the Indian Meteorological Department (IMD) and Central Water Commission (CWC) to explore advanced modeling techniques for weather and hydrological forecasting.
Installation of boulder traps and protective structures in landslide-prone areas to safeguard hydraulic machinery.	Establishment of seismic monitoring facilities at dam sites to assess geological stability and inform risk mitigation strategies.	

# Cybersecurity and Information Security Management

NHPC has adopted a centralized and integrated IT business process architecture, leveraging Software-Defined Wide Area Network (SD-WAN) technology to streamline operations and enhance digital resilience. In alignment with its commitment to cybersecurity governance, NHPC has implemented a robust IT and Cyber Security Policy to safeguard its Information Technology (IT) and Operational Technology (OT) infrastructure across all operational sites.

To promote a culture of cybersecurity awareness, NHPC observes Cyber Jagrukta Diwas on the first Wednesday

of every month, in accordance with Government of India directives. This initiative reinforces employee awareness and preparedness against evolving cyber threats.

All NHPC power stations and the Corporate Office are certified under the Information Security Management System (ISMS) ISO 27001:2013/2022, ensuring the confidentiality, integrity, and availability of critical information assets. These certifications reflect NHPC's alignment with global best practices in information governance and data protection.



*New Age ERP kick off meeting held for IMS week at Corporate Office, Faridabad*



## Cyber Risk Mitigation and Crisis Preparedness

To address the growing threat of cyberattacks, NHPC has developed and implemented a comprehensive Cyber Security Policy and a Cyber Crisis Management Plan (CCMP). These frameworks are designed to minimize service disruptions and ensure rapid response in the event of a cyber incident. Oversight of NHPC's cybersecurity strategy is led by the Director (Projects), who also serves as the Chairperson of the Crisis Management Group (CMG) under the CCMP.



Awareness Session during National Cyber Security Awareness Month at Corporate Office, Faridabad

### Key controls and technology enablement:

#### Business continuity and disaster recovery:

- A Disaster Recovery (DR) Site supports critical ERP and e-Office applications as part of the Business Continuity Plan (BCP), ensuring operational resilience during emergencies.

#### Security assurance and monitoring:

- Vulnerability Assessment and Penetration Testing (VAPT) is conducted every six months at all generating stations to proactively identify and remediate vulnerabilities.
- Regular internal and external audits of IT infrastructure and information security controls are undertaken to validate compliance and drive continuous improvements.
- A centralized endpoint security solution protects servers and desktops against malware and unauthorized access.
- A centralized Cyber Security Operations Center (C-SOC) is under establishment to continuously monitor NHPC's cybersecurity posture.

#### Advanced security technologies:

- Implementation and enhancement of multi-layered controls including Multi-Factor Authentication (MFA), Network Access Control (NAC), Privileged Access Management (PAM), Web Application Firewall (WAF), Next-Generation Firewalls (NGFW), Data Loss Prevention (DLP), Security Information and Event Management (SIEM), Endpoint Detection and Response (EDR), Intrusion Detection/Prevention Systems (IDS/IPS), threat and anomaly detection, threat intelligence integration, and dark web monitoring.



IT App Launch meeting at Corporate Office, Faridabad

## Governance, Compliance, and Continuous Improvement

Cybersecurity governance at NHPC is deeply integrated into the Enterprise Risk Management (ERM) framework and aligned with the company's Sustainability Strategy, ensuring resilience in an increasingly digital business environment. This approach supports compliance with leading ESG assessment frameworks, including MSCI ESG Ratings, S&P Corporate Sustainability Assessment (CSA), and EcoVadis, reinforcing NHPC's commitment to responsible and transparent operations.

### Our cybersecurity strategy focuses on:

- Data Privacy and Protection: Safeguarding sensitive information across all digital platforms.
- Cyber Risk Awareness and Training: Building a security-first culture through regular programs, including Cyber Jagrukta Diwas, to enhance employee awareness.
- Regulatory Compliance: Ensuring adherence to national and international cybersecurity standards.
- Digital Infrastructure Resilience: Continuously strengthening systems to withstand evolving cyber threats.

The IT & Cyber Security Policy, available on NHPC's official website, is periodically reviewed and updated to address emerging risks and technological advancements. The IT & Cyber Security Policy, accessible via NHPC's official website (Policy Link), is periodically reviewed and updated to reflect emerging threats and technological advancements.

Instances involving loss / breach of data of customers as a percentage of total data breaches or cyber security events:

Number of instances of data breaches	0
Percentage of data breaches involving personally identifiable information of customers*	0
Impact, if any, of the data breaches	-

\*NHPC does not store sensitive customer (DISCOMs) data, hence such an instance of breach is not applicable

# Associations and Memberships

Name of Body/ Entity
ISRM (International Society for Rock Mechanics & Rock Engineering)
SHRM (Strategic Human Resource Management)
CBIP (Central Board of Irrigation & Power)
CIGRE (International Council on Large Electric Systems)
India Habitat Centre
Standing Conference of Public Enterprises (SCOPE)
AIMA (All India Management Association)
DSCI (Data Security Council of India)
Renewable Energy Promotion Association (REPA)
INCOLD (International Commission on Large Dams)
ISEG (Indian Society of Engineering Geology)
TAI (Tunnelling Association of India)
CSI (Computer Society of India)
INHA (Indian National Hydropower Association)
ISRM TT (Indian Society for Rock Mechanics & Tunneling Technology)
DELNET (Developing Library Network)
NIPM (National Institute of Personnel Management)
NHRD (National HRD Network)
Power Sector Skill Council
ICSI (The Institute of Company Secretaries of India)

## Contributions and Other Spending

In terms of policy influence, NHPC has not contributed to political campaigns, trade associations and other tax-exempt groups, and on lobbying expenditures

Currency (INR)	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Lobbying, Interest representation or similar	0	0	0	0
Local, regional or national political campaigns / organizations / candidates	0	0	0	0
Trade associations or tax-exempt groups (e.g. think tanks)	0	0	0	0
Other (e.g. spending related to ballot measures or referendums)	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



# Environment

## Harnessing Clean Energy, Protecting Nature

At NHPC, environmental stewardship is at the core of our planning, construction, and operational practices. As India's leading hydropower company, we undertake comprehensive Environmental Impact Assessments (EIA) for all projects through accredited consultants, followed by transparent public consultations as per EIA 2006 notification of MoEF&CC. These assessments provide critical insights into potential impacts on ecosystems and communities. Based on these findings, we implement well-structured management plans encompassing compensatory afforestation, catchment area treatment, green belt development, and real-time monitoring of environmental flows. Our approach ensures that renewable energy generation advances in harmony with ecological sustainability.

### In this section

NHPC's Environmental Approach to Hydropower Development

Climate Strategy: Mitigation & Adaptation

Commitment to Net Zero

Energy Management

Emissions Management

Responsible Water Management

Waste Management

Biodiversity Conservation



## Highlights

**7,832.90 MW**

Renewable Installed capacity (as on 31.03.2025)

**1,411**

Glacial lakes(>2ha) mapped for GLOF risk as on 31.3.2025

**19,878 MUs**

Clean energy generated

**87.69 MWp**

Rooftop solar tender issued under PM Surya Ghar Muft Bijli Yojna

**14.45 million tCO<sub>2</sub>e**

Emissions avoided

**No fines / violations**

on environmental aspects.

**224 hectare**

Afforestation under Green Credit Programme, allotted in Gujarat

**e-Aabhas EWS**

Real-time river alerts and warnings for downstream communities and infrastructure safety

Tanakpur Power Station, Uttarakhand

# NHPC's Environmental Approach to Hydropower Development

NHPC places environmental and social considerations at the core of its hydropower development process. Before any construction begins, company conducts detailed site investigations and integrates environmental factors into the project's design-engineering aspects, incorporating alternative sites analysis keeping in view the minimal requirement of land and submergence area so as to have reduced impact on people and flora-fauna. This approach of project-planning also reduces the cost likely to incur on mitigation of impacts, thereby minimizing the total project cost.

NHPC adheres with the compliance of statutory requirements, including Environmental and Forest Clearances. Accordingly, Comprehensive Environmental Impact Assessments (EIA) as well as Environment Management Plan (EMP) are carried out in line with the provisions of EIA notification (2006) and its subsequent amendments issued by MOEF&CC, Government of India. The findings of study are shared with local communities through public consultations and wide circulation of report.

The feedbacks received from local people are duly incorporated into EIA-EMP reports for further compliance action during construction and operation of project. Complete report alongwith the proceedings of public hearing are appraised by Expert Appraisal Committee (EAC) of MOEF&CC, Govt. of India and takes decision to recommend project for granting environmental clearance stipulated therewith certain conditions for environmental safeguards measures. NHPC ensures the compliance of project-specific safeguard measures under Environment Management Plans (EMP) such as Compensatory afforestation, biodiversity conservation, Catchment area treatment, muck disposal etc.

Also, periodic monitoring and reporting process are in place to overview the implementation of safeguard measures by regulatory authorities.

Addressing the social aspects of projects is very important for a project. The concerns of local community particularly project affected families (PAFs) are integral

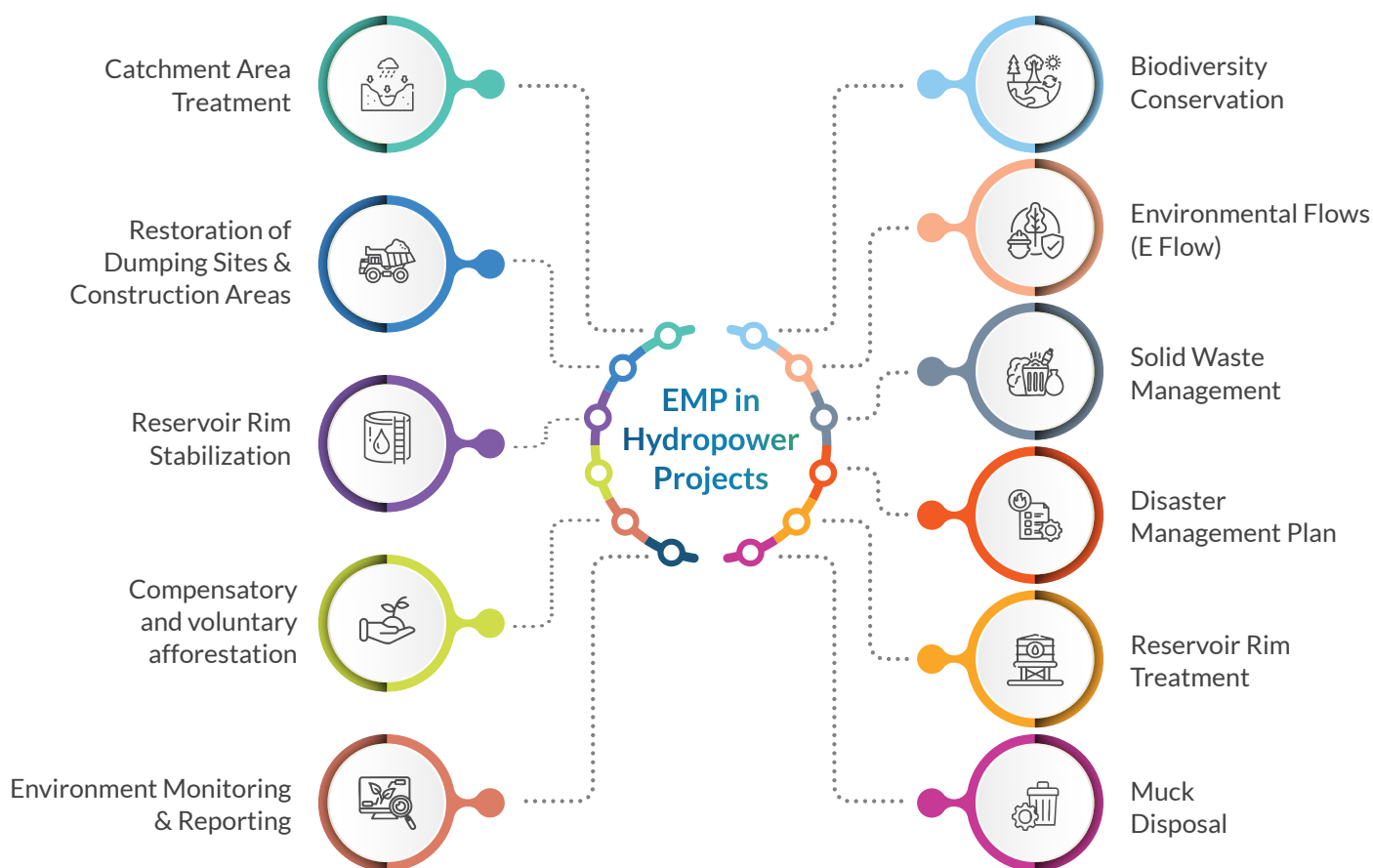
to the planning of a project. The land acquisition and Rehabilitation Resettlement(R&R) measures are carefully taken up in line with the provisions of 'Right to Fair Compensation, Transparency in Land acquisition, R&R Act, 2013, as per which, the state government officials play significant role to assess and address the concern of affected families based on SIA study. NHPC duly adheres with the norms and directions in this regard and releases funds for disbursement of compensation of land and R&R scheme, on time. In addition, CSR scheme is also implemented by NHPC for improving the socio-economic development in project area and its vicinity. Dedicated grievance re-dressal mechanism is in place for responding the concerns of people.

Besides hydropower projects, in recent times, NHPC is also actively working on multiple Pumped Storage Projects (PSPs) located in different States in India and adopts rigorous due diligence with an aim to design the PSPs with minimal ecological impacts. At the planning stage, project layouts are analysed using Remote Sensing and GIS tools to ensure sites are located away from Protected Areas and Eco-Sensitive Zones (ESZs). This is followed by site visits of multidisciplinary team to validate ground conditions, assess submergence area, geological and social aspects. Also, State Forest Departments is consulted to discuss wildlife and forest aspects in the proposed project area. As regard to water availability for PSPs, water sourcing for reservoirs is being planned without disturbing natural catchments, safeguarding downstream needs. Based on analysis of these data followed by in-house discussion with expert team, a preliminary feasibility report is prepared covering techno-economic viability, environment and social aspects. This report is submitted to relevant authority of government for concurrence and further directions on the execution of PSPs.

In this way, since the inception of project, NHPC integrates the concerns of environment and local community while execution of hydropower projects for sustainable and inclusive development.

Sewa-II Power Station (Power House), UT of J&K

## Environmental Management Plans (EMP)



## Climate Strategy: Mitigation & Adaptation

### Climate Resilience

As a renewable energy enterprise, our core business hydropower generation supports national climate goals by avoiding greenhouse gas emissions and enabling India's transition to a low carbon energy system. Climate resilience across its operations is the foremost priority to address evolving risks from changing precipitation patterns, extreme weather, and natural hazards such as Glacial Lake Outburst Floods (GLOFs) and flash floods.

Climate resilience in power stations are integrated from the outset. At the project planning stage, NHPC conducts comprehensive climate risk assessments to identify vulnerabilities and adaptive measures to enhance reliability and safety. Given hydropower's capital

intensive nature, it is imperative to ensure technically secured design of project for its sustainability in operation. Hydropower project is designed based on a specific river discharge. Since river flow varies over time, a detailed site investigation is carried out to assess these variations. The findings are compiled into a comprehensive Project Reports (DPRs) are prepared in line with Central Electricity Authority (CEA) guidelines under the Ministry of Power. The DPR mainly include hydrological analyses, GLOF risk assessments, power potential studies and consideration of environmental factors into design of project. These aspects are reviewed by CEA experts and concurrence is provided for execution of project.



## Strengthening Climate Resilience through Early Warning Systems

During operation of Power stations, to manage operational challenges from water flow variability, NHPC deploys advanced monitoring systems and Early Warning Systems (EWS) for timely response to floods and droughts, enhancing the safety and reliability of hydropower assets and downstream communities. NHPC has implemented the cloud-based “Early Warning System (EWS) – e-Aabhas” as a strategic solution to mitigate climate-related physical risks. This system enables real-time monitoring of water levels and river discharge, issuing timely alerts to prevent hazards such as floods and glacial melts. The upstream monitoring feature ensures that downstream power stations receive early notifications, facilitating swift and coordinated responses to potential emergencies.

To safeguard local communities, NHPC has installed hooters at dams and powerhouses to signal impending

water releases. Centralized monitoring is maintained through the Master Control Room, which monitors vulnerable hydroelectric assets across the country and coordinates emergency responses. NHPC also collaborates with national level remote sensing institute to monitor glacial lakes using satellite data, enhancing its understanding of glacier dynamics and associated flood risks.

By leveraging remote sensing, GIS technologies, and cross-sector partnerships, NHPC is advancing its climate resilience framework. These efforts not only address immediate threats but also contribute to long-term adaptation, aligning NHPC with global climate action imperatives and ESG best practices.

## Proactive Management of Glacial Lake Outburst Floods (GLOFs)

Hydropower assets in the Himalayan region face heightened vulnerability to Glacial Lake Outburst Floods (GLOFs), driven by accelerated glacial melting and extreme weather events linked to climate change. Recognizing this risk, NHPC has launched a research initiative with the National Remote Sensing Centre (NRSC), ISRO, under an MoU signed on March 20, 2024.

The project covers 26 hydropower stations across eight Himalayan river basins, focusing on GLOF modeling and forecasting. It simulates breach-induced outflows, evaluates dam safety, and optimizes spillway capacities. Insights from these studies will guide emergency response protocols and strengthen water risk management through real-time hydrometeorological and remote-sensing data integration for early warnings and operational decisions.

Complementary community programs ensure affordable clean energy and water access, reinforcing resilience and stakeholder engagement. NHPC's proactive approach reflects its commitment to climate risk mitigation, ethical governance, and sustainable infrastructure development.



*NRSC-ISRO's one-week training on glacial lake prioritization and GLOF modelling for NHPC officers in Hyderabad*



# Strategic Collaboration for GLOF Risk Mitigation and Climate Resilience

As part of its proactive climate risk management strategy, NHPC has entered into a Memorandum of Understanding (MoU) with the National Remote Sensing Centre (NRSC) to monitor glacial lakes across 26 hydropower stations in eight river basins. This collaboration represents a significant step toward strengthening NHPC's resilience

against Glacial Lake Outburst Floods (GLOFs) and other climate-induced hazards. The initiative focuses on a comprehensive approach, including technical training, robust monitoring frameworks, risk prioritization, and the development of early warning systems.

## Components of the MoU Implementation



### Technical Collaboration and Capacity Building

NHPC personnel are undergoing specialized training in satellite-based glacial lake monitoring techniques. This capacity-building initiative equips staff with the technical expertise required for real-time risk assessment and enhances NHPC's internal capabilities to respond swiftly to emerging threats.



### Monitoring Framework Development

A structured monitoring framework has been established for 26 hydropower stations and projects across eight river basins. With continuous support from NRSC, this framework enables systematic tracking of glacial lake dynamics, ensuring timely identification of potential risks.



### Risk-Based Ranking and Prioritization

NHPC and NRSC are jointly ranking glacial lakes based on their potential GLOF risk. This targeted approach facilitates efficient resource allocation and focused mitigation efforts in high-risk zones, thereby reducing the likelihood of catastrophic events.



### Formulation of Early Warning System (EWS) Methodology

A tailored methodology is being developed to establish threshold-based Early Warning Systems for individual lakes. Pilot implementations at two selected hydropower projects will assess the real-world effectiveness of these systems in providing timely alerts and enabling preventive action.

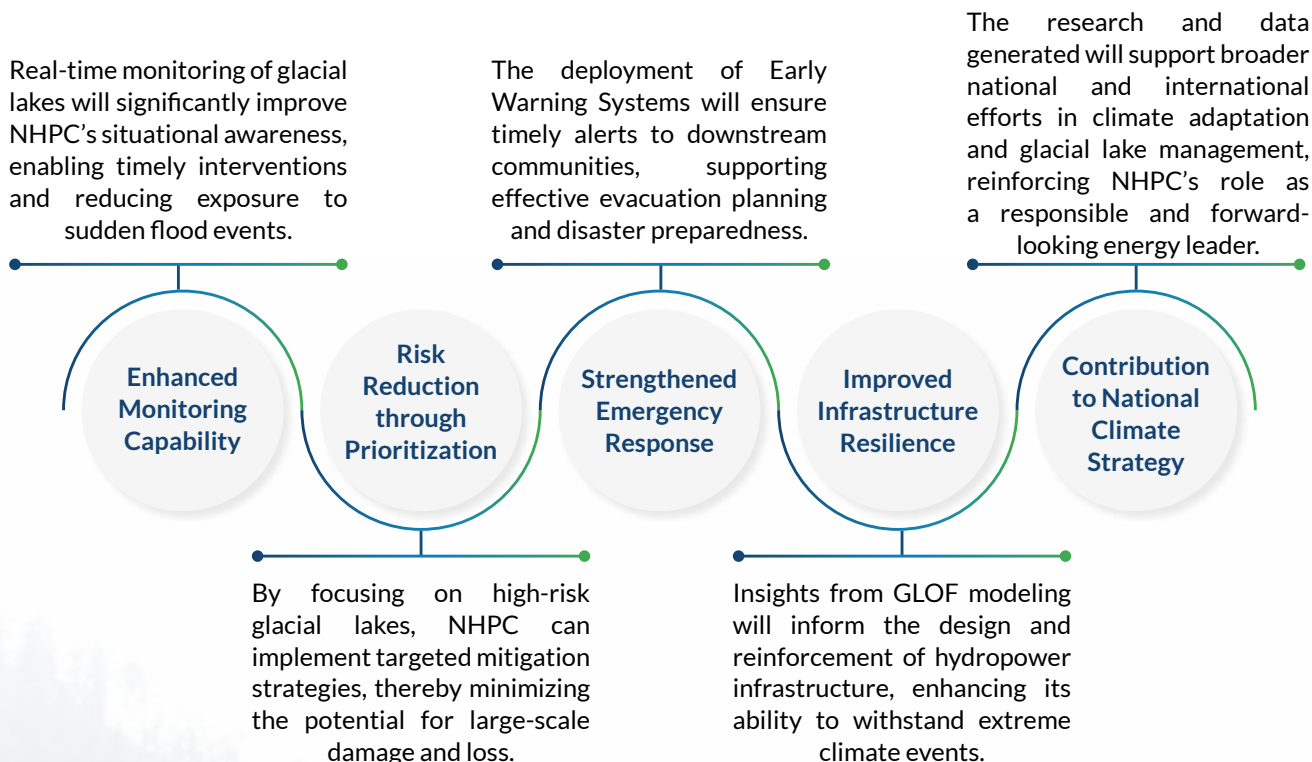


### Comprehensive GLOF Modeling

Advanced modeling is being conducted to simulate potential GLOF scenarios and assess their impact on dam infrastructure. With a total budgeted investment of ₹151.53 lakh this initiative is currently under progress to generate critical data and inform infrastructure design, strengthen Early Warning systems and emergency response planning.

## Anticipated Outcomes and Strategic Benefits

The proactive measures undertaken through this collaboration are expected to yield several long-term benefits that align with NHPC's climate resilience and ESG objectives:



## GLOF Study Progress in FY2024-25

As part of NHPC's R&D initiative on GLOF monitoring, a structured capacity-building program was conducted at NRSC, Hyderabad in two phases during June and December 2024, training eight and seven employees, respectively. The program focused on glacial lake mapping and hydrological modeling to enhance technical expertise in climate risk assessment. At the initial stage of monitoring, 1,411 glacier lakes (above 2 ha) were analyzed using the Google Earth Engine (GEE) platform. This mapping exercise is ongoing and will play a critical role in evaluating climate-related risks and implementing timely risk mitigation measures for sustainable operations.

Parbati-III Power Station (Dam), Himachal Pradesh

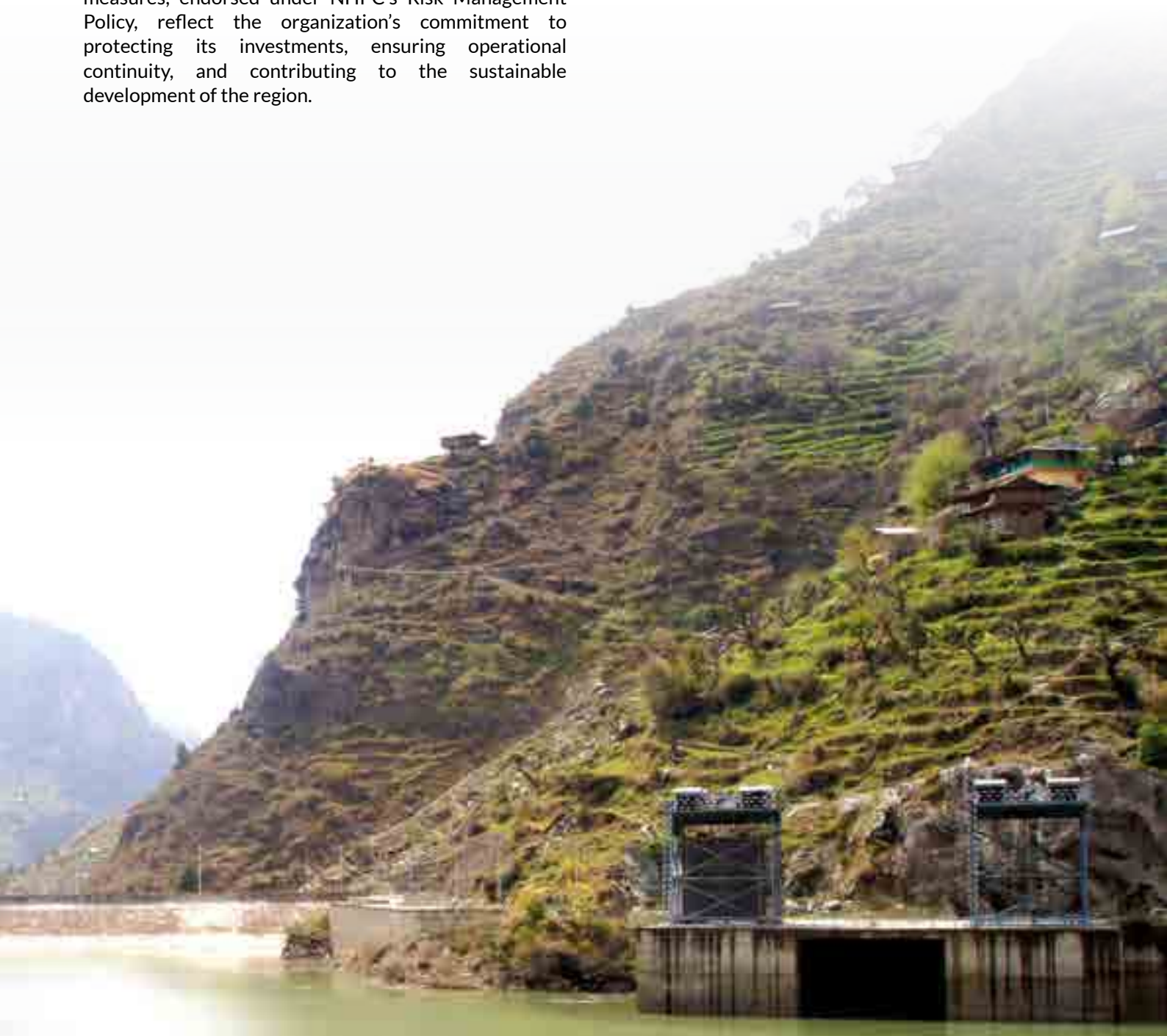
## Reducing Financial Risk through Climate-Responsive Insurance

In recognition of the financial risks posed by natural disasters, NHPC has adopted tailored insurance policies to safeguard its infrastructure assets. These policies provide comprehensive coverage against damages resulting from extreme weather events, ensuring financial stability and enabling swift recovery and reconstruction.

As climate change continues to intensify environmental uncertainties, such financial safeguards are integral to NHPC's broader risk management framework. These measures, endorsed under NHPC's Risk Management Policy, reflect the organization's commitment to protecting its investments, ensuring operational continuity, and contributing to the sustainable development of the region.

## Climate Governance and Risk Oversight

NHPC's Enterprise Risk Management (ERM) Policy identifies environmental and climate-related risks as critical factors influencing its operations. Oversight of these risks is entrusted to the Risk Management Committee, a Board-level body responsible for periodic evaluation, strategic assessment, and implementation of mitigation measures. This governance structure ensures that climate risks are addressed with accountability, transparency, and alignment to NHPC's long-term sustainability goals.





# Commitment to Net Zero Emissions

NHPC, a leading renewable energy producer, is driving India's clean energy transition through its core strength in hydropower—one of the lowest lifecycle GHG emission sources, as recognized by the IPCC. Beyond hydropower, NHPC is expanding into Pumped Storage Projects (PSPs) for energy storage and grid stability, and advancing Green Hydrogen initiatives to enable future-ready solutions. The company is also creating additional value through Carbon Credits, including Certified Emission Reductions (CERs), VCUs and actively participating in Green Credit Programs to reinforce its sustainability leadership. These initiatives align with NHPC's commitment to achieve net-zero GHG emissions by 2070, supporting India's national decarbonization goals.

NHPC's hydropower generation continues to earn Certified Emission Reduction (CER) credits, reinforcing its contribution to clean energy and the nation's Net Zero journey. In FY 2024-25, NHPC generated 19,878 million units (MUs) of electricity, thereby avoiding approximately 14.45 million tonnes of CO<sub>2</sub> emissions. These avoided emissions are calculated using the Central Electricity Authority (CEA) weighted average emission factor, based on NHPC's total generation (MUs graphs given in subsequent page).

**To streamline its Net Zero roadmap, NHPC has initiated comprehensive GHG accounting**

Scope 1 and Scope 2 emissions have been measured and reported for the past three financial years.

Scope 3 emissions reporting commenced in FY 2023-24.

**NHPC's multi-pronged strategy includes**



Investing in renewable energy sources - Hydro, Wind, and Solar



Enhancing energy efficiency across operations



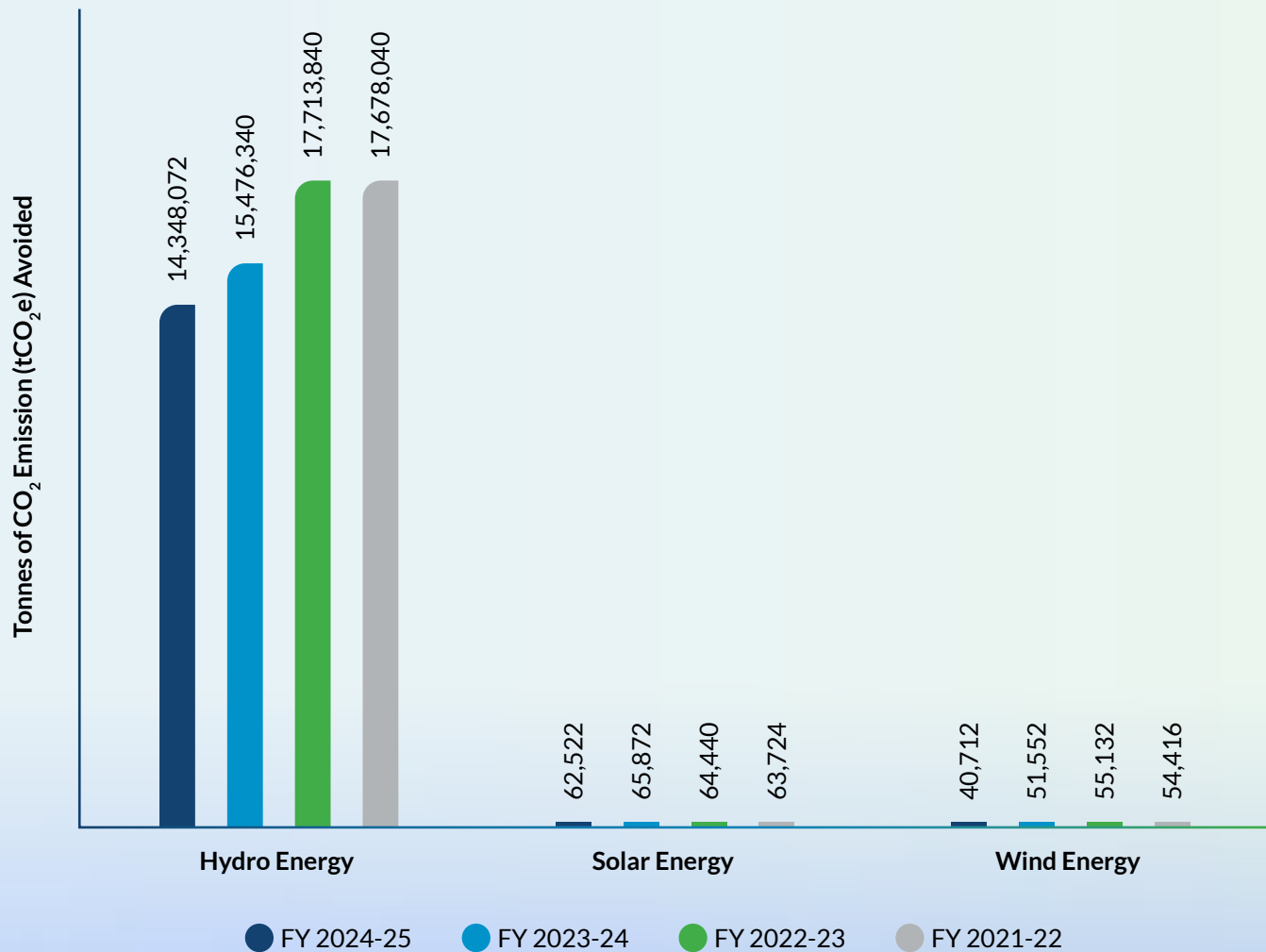
Deploying innovative technologies to reduce ancillary emissions

Unlike thermal power plants, NHPC's operations do not emit GHGs or pollutants and utilize water without consumption to generate electricity through hydropower technology. NHPC adheres with the sustainable supply chain by integrating ESG factors in to account. These practices are embedded in NHPC's sustainability framework and contribute to the broader national climate goals.

Thus, through innovation and responsible governance, NHPC aims not only to meet regulatory expectations but also to lead India's clean energy transition.



## Avoidance of GHG Emissions through Renewable Energy Generation



# Green Hydrogen Solutions: Driving Innovation for a Low-Carbon Future

In alignment with the National Green Hydrogen Mission launched by the Ministry of New and Renewable Energy in January 2023, NHPC is exploring green hydrogen technologies to support India's Net Zero ambitions. These initiatives aim to position the NHPC as a key contributor to the production, utilization, and export of green hydrogen.



Facilitates integration of renewable energy with grid systems, supporting grid balancing



Offers zero-emission energy for transportation, industry, and microgrids



Pilot projects will inform future commercial viability and sector-wide adoption

Salal Power Station (Dam-Arial View), UT of J&K

## Pilot Projects Under Development

### Green Hydrogen-Based Fuel Cell Microgrid (25 kWe)

The solar PV plant was successfully commissioned in September 2024 and integrated with the local distribution system. The hydrogen system components, including the electrolyser and fuel cell, have undergone rigorous testing. The electrolyser has commenced operations, while site testing of the fuel cell is currently in progress. The project is expected to be fully commissioned by January 2026.

### Green Hydrogen Mobility Station Chamba, Himachal Pradesh

Site surveys and engineering designs have been completed, and solar module installation completed. The design and engineering of the hydrogen plant are currently in development. The project is targeted to be commissioned during financial year 2025-26 and will serve as a model for hydrogen mobility in hilly terrains.



### Green Hydrogen Mobility Station – Kargil, UT of Ladakh

Despite initial land acquisition challenges, NHPC secured an alternate site in January 2025 with full administrative support. The contractor has been instructed to resume site work at the earliest to ensure timely progress of the project.

### Procurement of Hydrogen Fuel Cell Electric Buses

The procurement process for one hydrogen fuel cell electric bus, along with three years of maintenance services, has been initiated for deployment in Chamba, Himachal Pradesh. The tendering process is currently underway.

# Carbon Credit Trading

NHPC actively participated in international carbon markets through the Clean Development Mechanism (CDM) under the United Nations Framework Convention on Climate Change (UNFCCC). Emission-reduction projects implemented by NHPC earned Certified Emission Reduction (CER) credits, each representing one tonne of CO<sub>2</sub> avoided. These credits were tradable, providing financial incentives while supporting global climate targets under the Kyoto Protocol.

In addition to CDM, NHPC also earns credits under the Verified Carbon Standard (VCS) program managed by Verra. This ensures rigorous verification and credibility of emission reductions.



Parbati-III Power Station (Power House),  
Himachal Pradesh

## CDM-Registered Power Stations



Nimoo Bazgo  
**(45 MW)**  
UT of Ladakh



Chutak  
**(44 MW)**  
UT of Ladakh

## VCS-Registered Power Stations



Teesta-V  
**(510 MW)**  
Sikkim



Teesta Low Dam-IV  
**(160 MW)**  
West Bengal



Teesta Low Dam-IV  
**(160 MW)**  
West Bengal



Parbati-III  
**(520 MW)**  
Himachal Pradesh



Kishanganga  
**(330 MW)**  
U.T of J&K

Through these mechanisms, NHPC reinforces its commitment to responsible energy generation and contributes to a more sustainable future.

Carbon Credit from Registered Power Stations	VCUs generated
Total Generated during the Year	1,31,25,314
Opening Balance of Credits on 1 <sup>st</sup> April, 2024	2,03,31,377
Sold during the year	-
Closing Balance of Credits on 31 <sup>st</sup> March, 2025	3,34,56,691



## Green Credit Program

The Green Credit Program (GCP), launched by the Ministry of Environment, Forest & Climate Change (MoEF&CC) in October 2023, is a pioneering market-based initiative under the Environment Protection Act, 1986. It aims to incentivize environmentally sustainable actions and aligns with the national vision of LiFE – Lifestyle for Environment. The programme enables entities to earn tradable green credits through activities such as afforestation, which can be utilized for Compensatory Afforestation (CA) requirements under the Forest (Conservation) Act, 1980, or for reporting under ESG and CSR obligations.

NHPC Limited registered under the GCP portal on 7 March 2024 and constituted a dedicated group to coordinate related activities. After consultations with MoEF&CC, NHPC committed to developing 25 plantation blocks covering 224 hectares in Gujarat, with an estimated cost of ₹15.57 crore. The Board approved the expenditure under the Environmental Expenses head, and NHPC deposited ₹15.51 crore with the Indian Council of Forestry Research & Education (ICFRE) on 6 August 2024. As of 31 March 2025, ₹9.15 crore has been utilized by the Gujarat Forest Department.

To ensure transparency and accountability, NHPC actively monitors plantation progress. A joint inspection of Plantation Block No. 798 in Sabarkantha, Gujarat, was conducted in March 2025. Covering 9 hectares, this block saw the planting of 9,999 saplings across 23 native species, supported by robust site development measures such as fencing, irrigation infrastructure, and ecological restoration. Monitoring confirmed healthy sapling growth effective fund utilization, and adherence to GCP objectives.

Participation in the GCP offers NHPC strategic benefits, including advance compliance with CA obligations, facilitation of forest clearance processes, and enhancement of its ESG credentials. The initiative also supports NHPC's future projects, such as pumped storage developments in Gujarat, where earned green credits can be leveraged for regulatory compliance.

Through an investment of ₹15.51 crore and proactive implementation of afforestation measures, NHPC has demonstrated its commitment to environmental stewardship and climate action. The Green Credit Programme not only strengthens NHPC's sustainability framework but also sets a benchmark for integrating ecological responsibility into corporate operations.



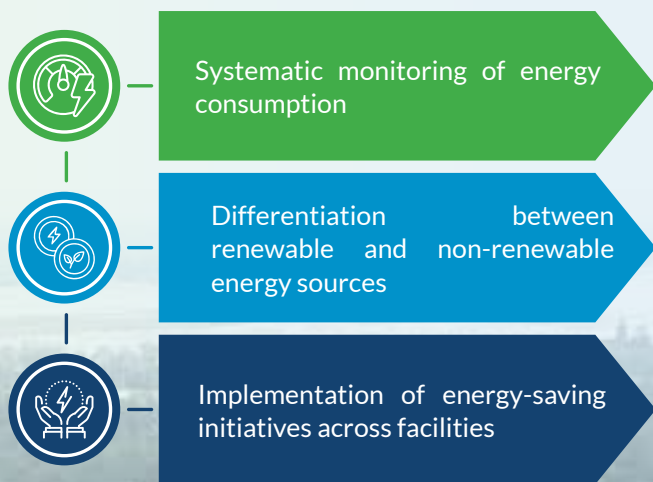
Plantation progress in one block

Plantation under GCP in Gujarat

# Energy Management

NHPC remains steadfast in its commitment to minimizing environmental impact by expanding its renewable energy portfolio and integrating sustainable technologies across its operations. Guided by its Energy Conservation Policy, the organization has adopted a comprehensive energy management strategy that emphasizes efficiency, accountability, and innovation.

**This strategy includes:**



NHPC's energy consumption framework intelligently combines grid-sourced electricity with renewable energy inputs to ensure operational sustainability. Energy audits of the Corporate Office, is conducted biennially by independent third-party agencies, in accordance with the Bureau of Energy Efficiency (BEE) notification dated 28.04.2010. The energy audit of the Corporate Office was successfully conducted this year through third party.

## Power Generation Performance

In FY 2024-25, NHPC's total power generation stood at 19,878 million units (MUs), consistent with the previous year. However, generation was impacted by climate-related events, including:

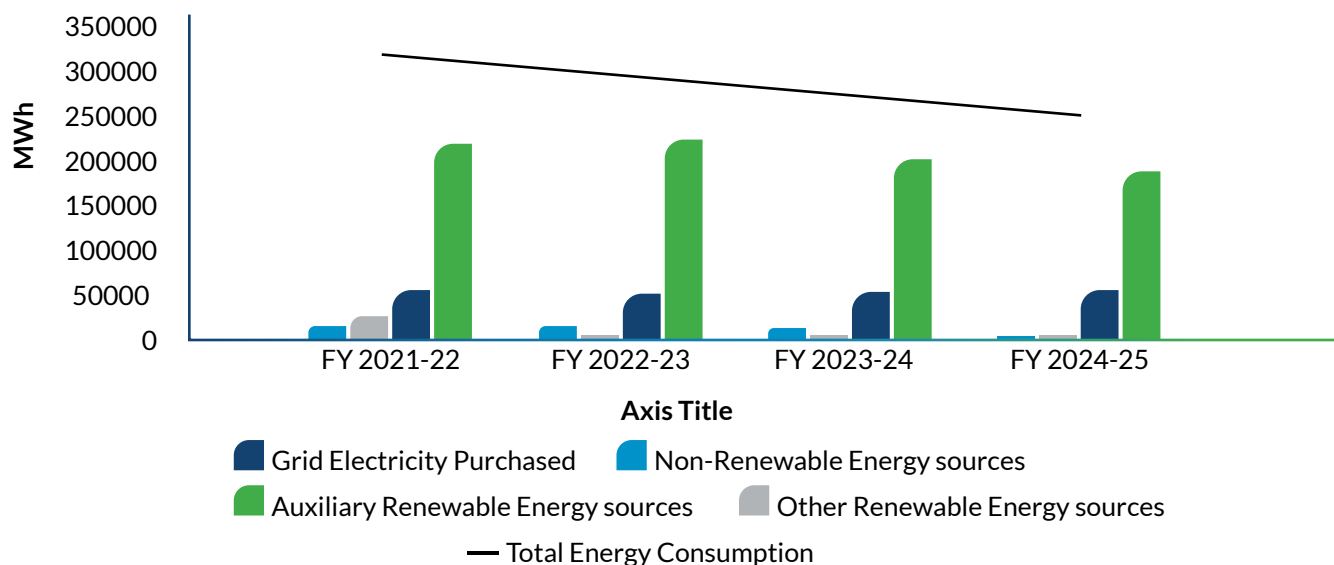
Flash floods in Himachal Pradesh (July 2023), A major flood event from Lhonak Lake in Sikkim (October 2023) & General reduction in water inflow across key catchment areas.

Tanakpur Power Station (Switch Yard), Uttarakhand



Source of Energy Generation	Gross generation FY 2024-25 (MUs)	Share generation FY 2024-25 (%)	Revenue generated 2024-25 (INR, in Crores)
Wind	56	0.28%	36.40
Hydropower	19,736	99.29%	8846.99
Solar	86	0.43%	36.17
<b>Total Renewables</b>	<b>19,878</b>	<b>100%</b>	<b>8919.56</b>

### Energy Consumption

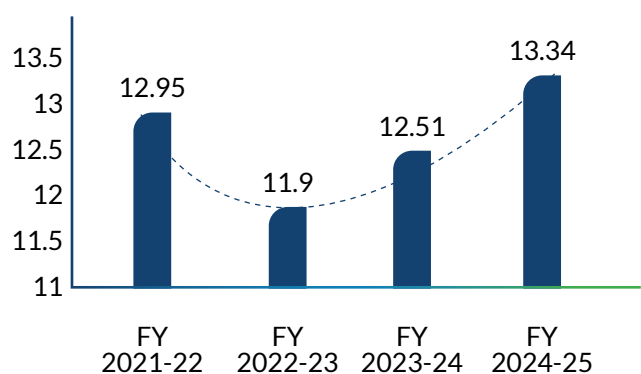


NHPC's energy consumption is primarily driven by operational requirements, with sources including: Grid electricity, Auxiliary hydropower, Solar energy and Fossil fuels (minimal use).

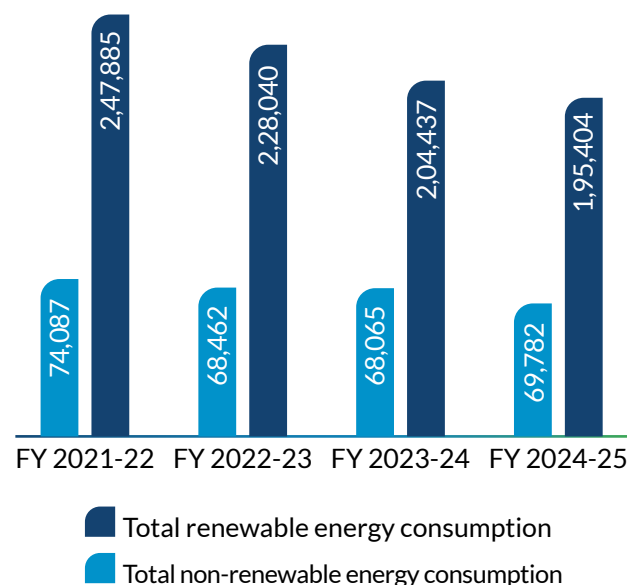
In FY 2024-25, 75% of NHPC's total energy consumption was derived from renewable sources, reflecting a significant shift toward sustainable energy use. NHPC offices, buildings, and facilities are powered by an eco-friendly energy mix, reinforcing the organization's commitment to low-carbon operations.

The increase in overall Energy intensity, is attributed to reduction in overall units generated in FY 2024-25 over FY 2023- 24, rather than solely due to increased energy consumption.

### Energy Intensity (MWh)



### Energy Consumption (MWh)



**Over the Years, NHPC has undertaken several initiatives to improve energy efficiency and reduce consumption:**

- **Energy Audits:** Periodic audits evaluate the performance of electrical systems and identify opportunities for efficiency improvements.
- **Green Building Ratings:**
  - » Neer Shakti Sadan: Four-star rating from GRIHA
  - » Jyoti Sadan: Three-star rating from BEE
- **Solar Installations:**
  - » **230 kWp** rooftop solar power station across Neer Shakti Sadan, Jyoti Sadan, and the Canteen Building
  - » **1000 kWp** Solar PV Plant at Faridabad Residential Colony
  - » Additional **2,854 kWp** installed across other NHPC locations
  - » NHPC Renewable Energy Limited (NHPC REL) and Tata Power Renewable Energy Limited (TPREL) have signed an MoU to jointly implement rooftop solar projects under the PM Surya Ghar Yojna Scheme.
  - » The collaboration aims to achieve **100%** solarization of government buildings across Central Ministries, States, and Union Territories by December 2025, supporting India's clean energy goals.
- **Smart Technologies:**
  - » Motion detectors and sensors for automated lighting and energy control
  - » Building Management System (BMS) at Neer Shakti Sadan for optimized energy use
- **HVAC Optimization:** Routine maintenance, including monthly filter cleaning during peak seasons, ensures efficient operation and energy savings

**Additional Sustainability Measures**

- **Electric Vehicle (EV) Infrastructure:** EV charging stations installed at Neer Shakti Sadan to promote low-emission mobility

- **Energy-Efficient Equipment:**



Replacement of old appliances with five-star rated air conditioners, refrigerators, and water pumps



Installation of five-star rated BLDC ceiling fans to improve air circulation and reduce energy use



Retrofitting of DG sets with emission control devices initiated at Corporate Office

- **Sustainable Lighting:**



LED streetlights and solar PV standalone streetlights installed at Corporate Office and Residential Colony for nighttime illumination

**Energy Conservation Awareness and Engagement**

NHPC actively promotes energy conservation awareness among employees through campaigns aligned with the Mission LIFE (Lifestyle for Environment) initiative. Posters, intranet messages, and PC shutdown prompts reinforce energy-saving practices. The organization also participates in the National Level Awareness Campaign by the Ministry of Power, organizing competitions to engage students at school, state, and national levels.

The Energy Conservation Task Force, established in 2008, plays a pivotal role in monitoring energy-saving measures and promoting user engagement. Each floor of the Corporate Office has a designated energy leader responsible for implementing initiatives and submitting biannual progress reports to the Executive Director, ensuring accountability and continuous improvement. Under the aegis of the Bureau of Energy Efficiency (BEE), Ministry of Power, NHPC organized School and State Level Painting Competitions on Energy Conservation in the allotted regions—Arunachal Pradesh, Jammu & Kashmir, Ladakh, and Madhya Pradesh—during 2024. The initiative aimed to spread awareness on energy



conservation among students and their families. Winners from the State Level competitions advanced to the National Level event held in Noida and Gurugram. Notably, Ms. Jigmet Zangdon (Ladakh) and Ms. Akriti Sharma (Jammu & Kashmir) received 'Appreciation Prizes' in Group 'A' category from Shri Shripad Yesso Naik, Hon'ble Minister of State for Power, during the National

Energy Conservation Day function on December 14, 2024, in New Delhi.

Through these integrated efforts, NHPC continues to demonstrate leadership in energy efficiency and sustainability, paving the way for a greener and more resilient future.

## Emission Management

The global community is united in its efforts to limit global warming to 1.5°C, with a strong emphasis on transition to renewable energy and enhancing energy efficiency improvements by 2030. India has set ambitious target of achieving 500 GW of installed renewable energy capacity and ensuring that 50% of its power generation comes from clean sources by the end of this decade. These goals demand integrated policy frameworks, strategic investments, and robust infrastructure development.

Aligned with these national and global priorities, NHPC plays a pivotal role in India's transition to a low-carbon economy. Our operations are fully in sync with the country's Nationally Determined Contributions (NDCs), which aim to reduce emission intensity by 33–35% by

2030 (from 2005 levels) and achieve net-zero emissions by 2070. By focusing on hydropower a 100% renewable energy source NHPC significantly contributes to reducing greenhouse gas (GHG) emissions while supporting India's clean energy roadmap. Our renewable energy capacity addition target of 23 GW by 2032 will help to avoid emissions and support overall decarbonization.

Our commitment extends beyond energy generation. Through sustainable hydropower development, NHPC actively earns Certified Emission Reduction (CER) credits, each representing the avoidance of one tonne of CO<sub>2</sub> emissions. These efforts underscore our dedication to climate action and our vision for a greener, more resilient future.

## Scope 1 and Scope 2 GHG Emissions

Although NHPC's operations inherently have a minimal carbon footprint, we recognize our responsibility to lead by example in emission management. We continuously monitor emissions from our facilities including DG sets, vehicles, and other operational sources and integrate robust carbon management practices across our value chain.

Since FY 2018–19, NHPC has systematically collected and reported data on Scope 1 and Scope 2 emissions,

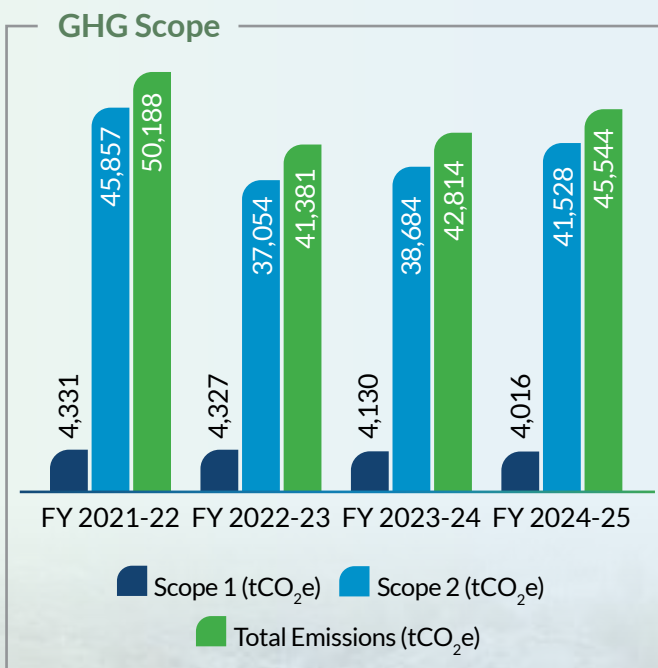
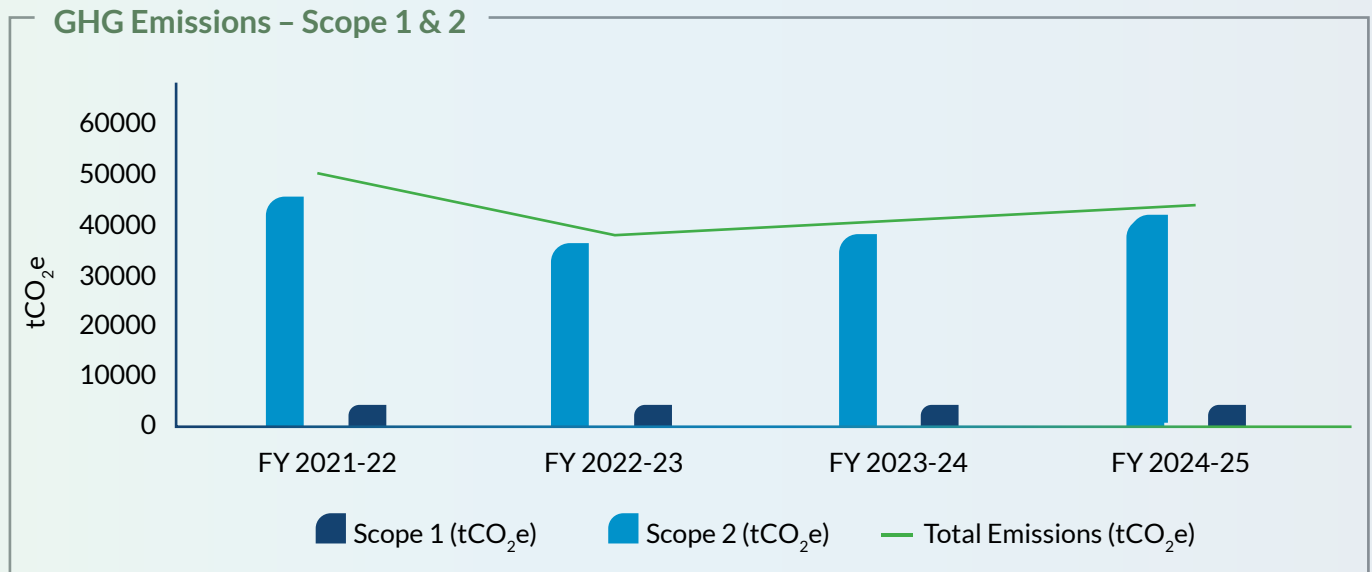
reinforcing our commitment to transparency and accountability. This proactive approach enables us to identify opportunities for improvement and implement measures that align with global best practices.

Our efforts are delivering tangible results. Over the past two financial years, NHPC has achieved a 9% reduction in GHG emissions (from FY 2021–22 to FY 2024–25), reflecting our unwavering focus on sustainability and environmental stewardship.



Salal Power Station (Dam), UT of J&K

## Total Emissions (Scope 1 & 2)



**NHPC categorizes its emissions in line with globally recognized standards:**

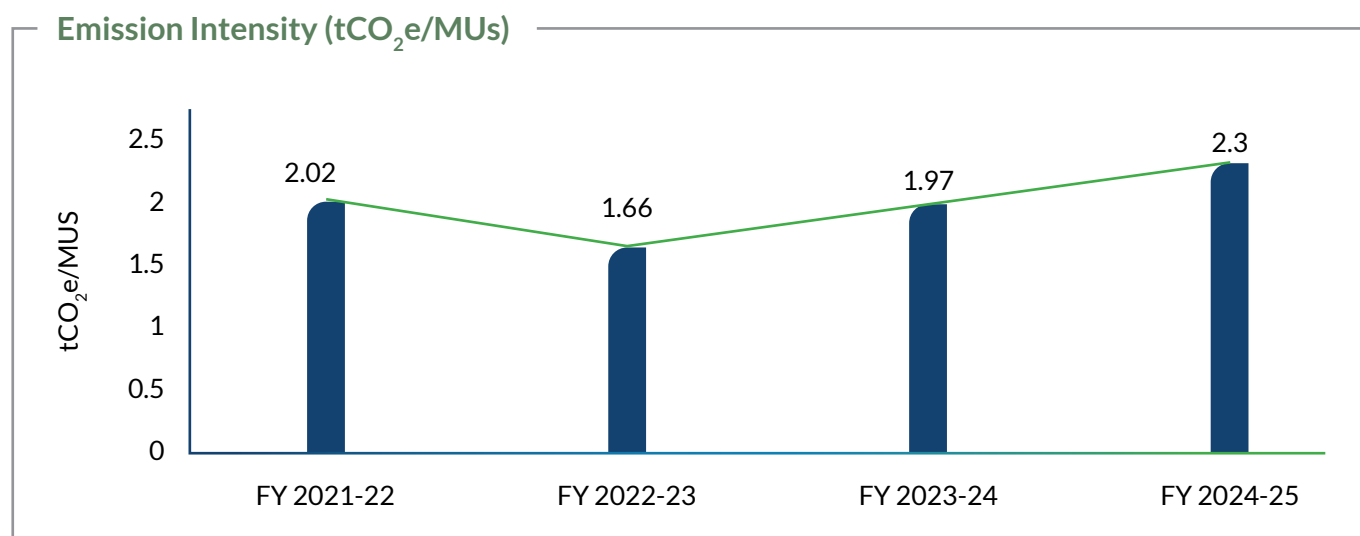
Scope 1 emissions include direct emissions from sources owned or controlled by NHPC, such as fuel consumption in DG sets, company-owned vehicles, and other operational equipment.

Scope 2 emissions represent indirect emissions resulting from the consumption of purchased electricity and energy.

To ensure accuracy and consistency in our reporting, NHPC applies conversion factors from the DEFRA 2024 guidelines for calculating both Scope 1 and Scope 2 emissions.

Chutak Power Station, UT of Ladakh

## GHG Emission Intensity



The increase in overall Emissions intensity, is attributed majorly due to reduction in overall units generated in FY 2024-25 over FY 2023-24, rather than solely due to increased GHG emissions.

## Scope 3 Emissions

NHPC continues to strengthen its climate action strategy by assessing Scope 3 greenhouse gas (GHG) emissions, which represent indirect emissions occurring across our value chain. This initiative reflects our commitment to a holistic approach to carbon management and aligns with global best practices for sustainability reporting.

### Current Year Assessment

In FY 2024-25, we maintained our focus on three significant categories of Scope 3 emissions. This year, NHPC adopted a spend-based approach for Scope 3 (Employee commuting) emissions calculation, replacing the previous fuel-based method. The change ensures broader coverage and a more accurate representation of NHPC's standalone Employee commuting emissions across relevant categories.

A significant improvement was in employee commuting data, where coverage expanded from 777 employees in 2024 to 3,323 employees in 2025. The spend-based data was derived from the Finance Department's validated records, which undergo rigorous internal checks before being used for emissions computation. This approach addresses earlier challenges of limited participation and data availability, delivering enhanced reliability and alignment with best practices.

#### Fuel- and Energy-Related Activities



Emissions from upstream production and transmission losses of purchased electricity and fuels consumed across Corporate Office and power stations.

#### Business Travel



official tours for meetings, training programs, and other work-related activities across the Corporate Office and power stations.

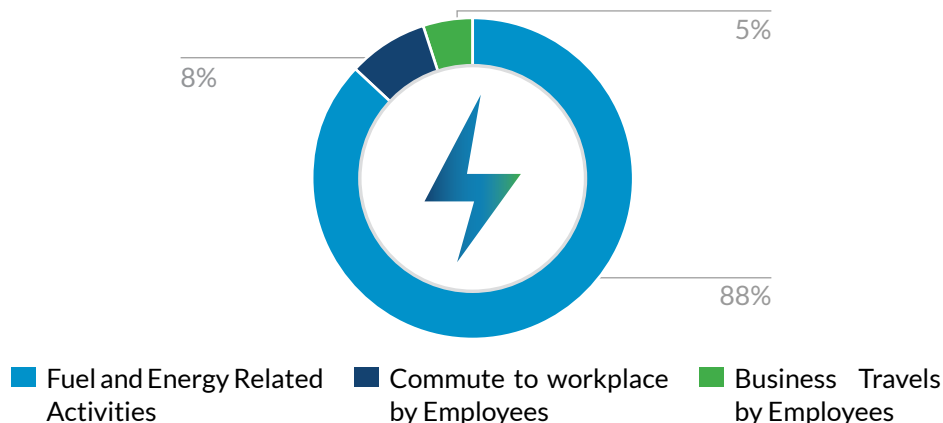
#### Employee Commuting



based on daily commute data for **3,323** employees across NHPC Office.

Our analysis for the reporting year indicates that total Scope 3 emissions amounted to **23,848 tCO<sub>2</sub>e**.

## Scope 3 Emissions



## Progress and Future Outlook

This year's assessment builds on the foundation laid in previous reporting cycles, enabling NHPC to track trends and identify opportunities for reduction. Looking ahead, we plan to:

- **Expand the Scope 3 boundary** to include all NHPC locations beyond the Corporate Office.
- **Incorporate additional categories** of Scope 3 emissions for a more comprehensive inventory.

By broadening the scope and depth of our assessments, NHPC aims to enhance its understanding of indirect emissions and implement targeted strategies to reduce its overall carbon footprint, reinforcing our long-term sustainability goals.

Scope 3 Category	Unit	FY 2024-25
Fuel and energy related activities	tCO <sub>2</sub> e	20,952
Commute to workplace by Employees	tCO <sub>2</sub> e	1,824
Business Travels by Employees	tCO <sub>2</sub> e	1,072
<b>Total indirect emissions (Scope 3)</b>	<b>tCO<sub>2</sub>e</b>	<b>23,848</b>

## Advancing Our Low-Carbon Commitment

NHPC's proactive approach to environmental stewardship and climate change mitigation is reflected in a range of initiatives designed to reduce emissions and promote sustainability. Our efforts include extensive afforestation programs within hydropower projects, encompassing both compensatory and voluntary plantation drives, under different occasion such 'Ek Ped Ma ke naam', 'World Environment Day', 'Van Mahotsav'. These initiatives not only offset the environmental impact of our operations but also enhance biodiversity and contribute to global climate goals.

Aligned with the Government of India's Mission LiFE (Lifestyle for Environment), NHPC actively promotes sustainable practices across offices and power stations. Awareness campaigns, including informative posters, encourage employees to adopt energy conservation, waste management, and water-saving measures, fostering a culture of environmental responsibility.

To further reduce our carbon footprint, NHPC has implemented several energy-efficient measures such as deploying electric vehicles (EVs) and installing EV charging infrastructure at office complexes. We have replaced conventional appliances with 5-star rated energy-efficient products, including BLDC fans, air conditioners, refrigerators, and water pumps. These actions significantly reduce energy consumption and emissions, reinforcing our commitment to climate action. In addition, diesel generator (DG) sets have been retrofitted at the corporate office and the Surajkund residential colony to improve efficiency and lower emissions.

Through these integrated efforts ranging from afforestation to energy efficiency NHPC continues to mitigate its operational impact while contributing to a sustainable future. These initiatives underscore our long-term vision of reducing carbon footprints, enhancing biodiversity, and supporting India's transition to a low-carbon economy.



## Air Emissions

Air pollution poses a significant risk to public health and the environment, making it essential to manage emissions effectively. In hydropower generation, air emissions primarily occur during the construction phase due to activities such as material handling, equipment operation and vehicular movement and dust from roads. Once projects transition to the operational phase, emissions are significantly lower and main source are captive use of use of diesel generator (DG) sets.

NHPC is committed to maintaining air quality across all its operations. We monitor both stack emissions and ambient air quality at power stations and regional offices, with real-time ambient air quality displays installed at the Corporate Office. During construction phase of hydropower projects, strict air pollution control measures are implemented, including water sprinkling on roads, regular maintenance of equipment, and covering of loose materials to minimize dust.

Air quality monitoring is conducted through NABL-accredited laboratories, and inspections are carried

out by the State Pollution Control Board to ensure compliance. Emissions from DG sets are closely monitored in line with CPCB guidelines. In our effort to reduce emission due to DG Sets, Retrofitted Emission Control Device (RECD) as per CPCB norms has been installed in Diesel Generating at CO and Residential colony , Surajkund. These measures ensure that NHPC not only meets regulatory requirements but also upholds its commitment to environmental stewardship and climate change mitigation.

Corporate Office	FY 2023-24	FY 2024-25
SOx (Tonnes)	0.027	0.183
NOx (Tonnes)	0.165	0.038
PM (Tonnes)	0.037	0.049

*Note: This data reports annual emissions from use of DG Sets at Corporate Office*

Chutak Power Station (Power House Entrance), UT of Ladakh

# Responsible Water Management

NHPC adopts a strategic approach to water management, integrating responsible stewardship into project design, operations, and township management to ensure dependable generation and ecosystem protection. Hydropower is a non-consumptive use of water to generate electricity at powerhouse located downstream of dam site. In the river stretch between dam site to powerhouse, environmental flows is maintained as mandated to sustain aquatic ecosystem, support agriculture, cultural needs and biodiversity. Our reservoirs also deliver vital co-benefits, including flood moderation, drinking water support, groundwater recharge and fisheries propagation, strengthening local resilience.

Beyond power generation, we drive efficiency in offices and residential colonies through rainwater harvesting, reuse of treated/reclaimed water, and deployment of water-efficient fixtures and systems—supported by regulatory compliance and continuous awareness.

This approach is anchored in NHPC's Corporate Environment Policy and Water Conservation Policy, which set clear standards for impact management, compliance, monitoring, and continual improvement, including roles, responsibilities, and accountability mechanisms. For details, refer to the **Corporate Environment Policy**: [https://www.nhpcindia.com/assests/pzi\\_public/gallery/16844978530.pdf](https://www.nhpcindia.com/assests/pzi_public/gallery/16844978530.pdf) and the **Water Conservation Policy**: [https://www.nhpcindia.com/assests/pzi\\_public/gallery/16844974380.pdf](https://www.nhpcindia.com/assests/pzi_public/gallery/16844974380.pdf)

## Water Stewardship Initiatives

NHPC continues to strengthen its water conservation efforts through a series of impactful initiatives aimed at sustainable resource management.

- Installation of rainwater harvesting pits at the Corporate Office and residential colonies to replenish groundwater and reduce dependency on external sources. Regular cleaning and maintenance of these pits are carried out to enhance groundwater recharge efficiency.
- Hydro-Meteorological Data Dissemination Policy, enabling structured sharing of critical data such as river water levels, discharge, sediment flow, and meteorological parameters. This policy ensures transparency, compliance with international treaties like the Indus Water Treaty, and supports research and water resource planning, in co-ordination with D&E Division of NHPC.
- Dedicated canteen displays and intranet posts promote water-saving practices, encouraging behavioral change and awareness across all NHPC locations.

Through these initiatives, NHPC demonstrates its commitment to responsible water stewardship, ensuring that water resources are managed efficiently and sustainably for the benefit of ecosystems, communities, and future generations.



Parbati III Power Station (Dam), Himachal Pradesh

## Water Conservation Initiatives

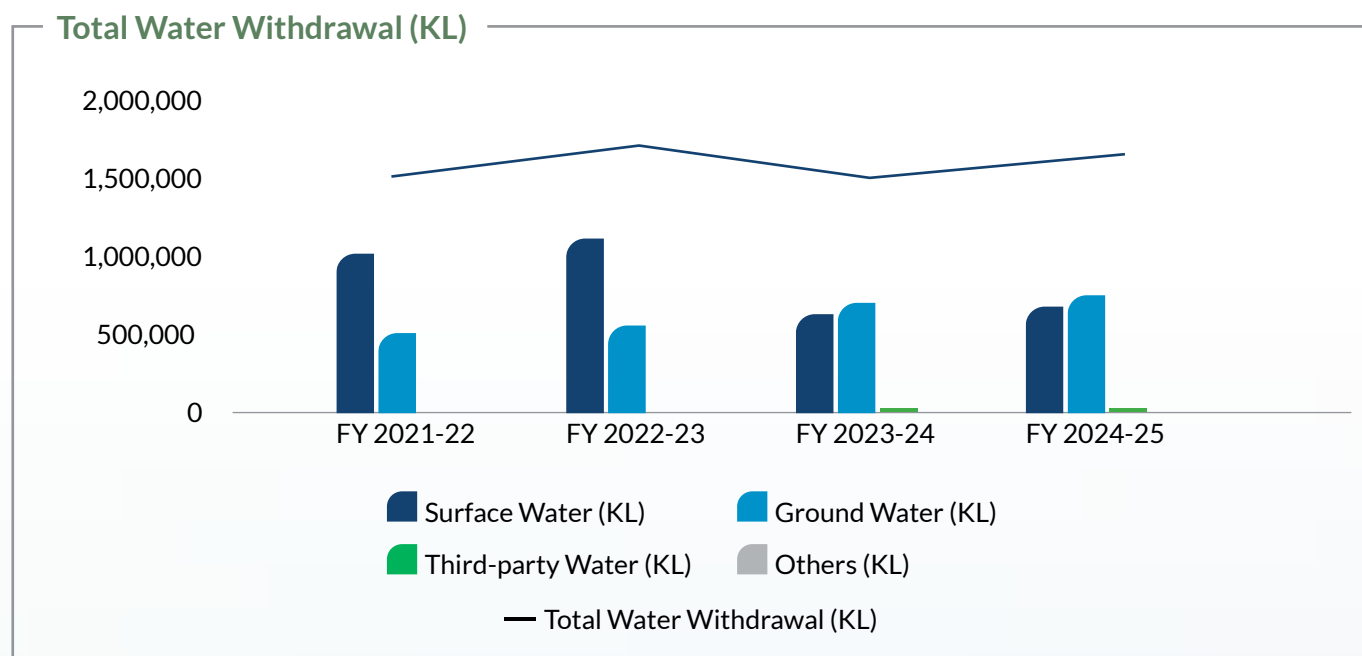
The company advances water stewardship through continuous awareness of water-saving measures are posted on the NHPC's intranet portal for creating awareness among employees posted across Power Stations (PS) and Regional Offices (RO); RO water vending machines in office with awareness posters are installed to promote responsible consumption. An online complaint management system is available on the intranet portal, enabling employees to report water leakages and request replacement of fittings at the Corporate Office and residential colony. A dedicated plumber team within the EMS Division ensures prompt rectification of complaints for timely resolution.

Zero Liquid Discharge (ZLD) system operates at the Corporate Office (CO); treated water from sewage treatment plants (STPs) is reused for horticulture resulting to saving of freshwater.



## Efficient Water Use and Management

NHPC maintains a low water footprint, as hydropower generation is primarily a non-consumptive process. Our water usage is mainly limited to routine functions within offices and residential colonies at power stations. To ensure responsible water management, NHPC implements a range of water-saving measures across its facilities, including efficient fixtures, optimized usage practices, and awareness initiatives.



### Total Water Withdrawal

Total Water Withdrawal	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Surface Water (KL)	1,025,367	1,099,746	700,358	773,858
Ground Water (KL)	497,677	562,284	763,112	886,690
Third-party Water (KL)	17,766	15,944	27,665	25,292
Others (KL)	0	0	619	743
<b>Total Water Withdrawal (KL)</b>	<b>1,540,810</b>	<b>1,677,974</b>	<b>1,491,754</b>	<b>1,686,583</b>

### Water Consumption

	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Water Consumption (in KL)	999,310	1,058,675	1,213,172	1,402,067



## Waste-water Management

NHPC is committed to sustainable wastewater management, ensuring that all discharge practices comply with regulatory standards while minimizing environmental impact and safeguarding public health. We strictly adhere to the General Discharge Standards prescribed by regulatory authority, ensuring that only treated wastewater is released into the environment. Our approach is guided by NHPC's Waste Management Policy, which reinforces our commitment to responsible resource use and environmental protection.

At our residential colony in Faridabad, for example, we have implemented a comprehensive waste management system that includes a Sewage Treatment Plant (STP), a Green Waste Processor for composting, and a two-bin

system for waste segregation at source, aiming to create a 'zero-waste' environment. Similarly, STPs have been installed at several power projects to manage wastewater from residential colonies and office complexes. In older establishments, wastewater is treated through septic tanks and soak pits, ensuring compliance with environmental norms.

NHPC remains committed to expanding wastewater treatment infrastructure and data acquisition measures across all projects and power stations, further strengthening our sustainability performance and contributing to the protection of ecosystems and community well-being.

Wastewater Discharged	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total wastewater generated (KL)	637,250	727,370	356,087	348,078
Waste water reused/ recycled (KL)	95,750	108,070	77,504	63,562
<b>Waste water discharged (KL)</b>	<b>541,500</b>	<b>619,300</b>	<b>278,582</b>	<b>284,516</b>



STP at URI Power Station, UT of J&K

# Waste Management

At NHPC, we prioritize environmental protection by implementing robust waste management practices across all operations. Guided by our Corporate Environment Policy and Waste Management Policy, we adhere to the Waste Management Rules prescribed by regulatory authorities, ensuring compliance and sustainability in every process.

Our approach focuses on minimizing waste generation at the source, supported by the principles of Reduce, Reuse, and Recycle. All waste generated is carefully collected, segregated, and disposed of in accordance with applicable guidelines. To strengthen these efforts, NHPC conducts regular awareness programs and campaigns

under the Mission LiFE (Lifestyle for Environment) initiative, encouraging employees to adopt responsible waste management practices and reduce waste across operations.

During FY 2024-25, there was a substantial increase in non-hazardous waste, primarily due to construction and demolition waste generated at the Salal power station, J&K, which was disposed of responsibly in compliance with State Pollution Control Board (SBCP) norms. This reflects NHPC's commitment to ensuring that even large-scale waste streams are managed in an environmentally sound manner.

Total Waste Generated (Metric Tonnes)	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Hazardous waste generated	36.51	60.59	51.7	17.56
Non-hazardous waste generated	1182.36	1410.44	2290.39	25772.93
<b>Total Waste Generated</b>	<b>1218.87</b>	<b>1471.03</b>	<b>2342.09</b>	<b>25790.49*</b>

\* Increase in non-hazardous waste reflects demolition and reconstruction activities at Salal Power Station.

## Waste Management Practices

We have established detailed waste management procedures for every category of waste, ensuring compliance with environmental regulations and promoting sustainability across our operations. During the construction phase, tunneling generates solid waste in the form of muck, which is managed under a project-specific Muck Disposal Plan. A portion of this material is reused as aggregates, while the remaining is disposed of at designated muck dumping sites that are later leveled

and restored with plantation. Some parts of debris or muck from our activities is utilized to fill low-lying areas and repair road patches.

Non-hazardous materials such as scrap and ferrous metals are collected and stored in designated areas before being periodically auctioned once sufficient quantities are accumulated. Municipal and biodegradable waste is managed through local municipal bodies wherever applicable.

### Swachhta Pakhwada 2024

In line with Ministry of Power directions, NHPC, its JVs and subsidiaries observed Swachhta Pakhwada across corporate, projects and power stations. Key actions included Swachhta pledges and awareness displays; workplace, colony and community clean-ups; school sessions on personal and menstrual hygiene; medical check-ups and hygiene kits for safai karamcharis; nukkad natak on single-use plastic with jute/cotton bag distribution; dustbin distribution for waste segregation; weeding out of 1,195 old files; and tree plantation drives led by senior management.

Hazardous waste, including used oil, batteries, and e-waste, is stored securely and disposed of through authorized recyclers and vendors. Through buy-back scheme enables the exchange of used batteries at discounted rates, while e-waste is managed in accordance with NHPC's E-Waste Policy, ensuring disposal through certified organizations. Importantly, there is no input or output of hazardous waste or toxic chemicals in the hydropower generation process.

Biomedical waste is generated from dispensaries handled by authorized recyclers and vendors or disposed

of through deep burial in remote locations, following the Biomedical Waste Management Rules, 2016. Non-biodegradable waste is segregated and transported to disposal sites designated by local authorities. To further strengthen compliance and monitoring, NHPC is upgrading its data management system on the intranet portal to enable better tracking and reporting of waste disposal. Regular inspections by the State Pollution Control Board ensure that our waste management practices remain aligned with environmental standards.

### Waste Disposal Methods (Metric Tonnes)

Disposal Method	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Recycled	0	0	69.47	1.69
Re-use	21.76	3.41	0.57	0
Other recovery operations	676.49	950.62	0.01	0

### Waste Diverted to Disposal (Metric Tonnes)

Disposal Method	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Incineration	0.11	0.1	0.39	0.32
Landfilling	44.54	50.15	355.63	238.47
Other disposal operations	475.98	466.76	1853.72	25151.62



Swachhta Pakhwada 2024, Cleanliness Drive at Mughal-era bridge over Budhiya Wala Nala, Faridabad



## Transforming Muck Dumping Sites into Eco Parks at Kishanganga Power Station, UT of J&K(India)

### Background and Objectives

During construction of the Kishanganga Power Station in Jammu & Kashmir (India), NHPC had to manage significant volumes of excavated muck in a systematic and sustainable manner. Two primary dumping locations were created in forested areas near the TBM site at approximately the 16th milestone from Bandipora and at Kanzalwan on the Gurez side. The muck generated was partially used for production of concrete, with the remaining utilized for road laying and plantations. In collaboration with the J&K Forest Department, NHPC funded the conversion of these stabilized dump sites into Eco-parks with restored green cover and essential civic amenities. The initiative addresses a long travel stretch that lacked way-side facilities, improves the ecological footprint of project-affected landscapes, and supports local tourism.

### Partnerships and Governance

The J&K Forest Department (Office of Project Officer, CAT Kishanganga Project, Bandipora) led project execution with funding from NHPC-Kishanganga Power Station.

### Project Scope, Investment, and Status

Two eco parks were developed:

- Kanzalwan Eco Park (right side of Bandipora-Gurej Road, Gurez Valley): INR 2.277 crore; completed, inaugurated, and fully functional, serving as a popular visitor attraction.
- TBM Site Eco Park (left side of Bandipora-Gurej Road at approximately the 6th milestone, including the Bandipora-Chandaji Road interface): INR 10.34 crore; civil and landscape works completed.

**Kanzalwan Eco Park**, Kanzalwan was developed on terraced levels with comprehensive slope stabilization. Visitor amenities include a guard hut, ticket counter, car parking, and other basic way-side facilities.

### Environmental and Social Outcomes

The conversion of muck disposal areas into stabilized green spaces has restored degraded land, enhanced slope stability, and improved visual and ecological quality. Erosion control structures (gabions, check



*Eco Restoration Site, Kishanganga Power Station, UT of J&K*

dams, channelization) and planned geosynthetic solutions strengthen climate resilience against intense rainfall and flash floods. The new parks provide safe, clean rest points for commuters and inclusive recreational spaces for communities. Kanzalwan's strong visitor uptake underscores the initiative's contribution to nature-based tourism and local livelihoods.



### Risk Management and Adaptive Measures

An adaptive management approach underpins long-term durability. Priorities include monitoring of slope behavior, requirement of catchment treatment with additional check dams in upstream of upper segment of site to control flashy flows, mitigation of shooting-stone risk near the road facing parking. These monitoring will guide the management of risks.

By repurposing construction muck sites into eco parks with enduring public value, NHPC demonstrates a circular, nature-positive mindset and climate-resilient infrastructure development that benefits communities, ecosystems, and travelers along the Bandipora–Gurez corridor.



*Transforming Muck Dumping Sites into Eco Parks along the Bandipora–Gurez Corridor (Kishanganga Power Station, UT of J&K)*



# Biodiversity Conservation

At NHPC, biodiversity conservation is integral to our environmental stewardship. Guided by our Corporate Environment Policy (2022) and Biodiversity Policy, we protect and enhance ecosystems by integrating biodiversity considerations into every stage of project development and operational management of a hydropower project. These policies apply to all power stations, regional offices, and corporate operations, extending to our value chain partners. We comply with all applicable laws and regulatory norms and embed biodiversity considerations into enterprise risk management and decision-making, following a 'No Net Loss of Forestland' approach going beyond just compensatory afforestation efforts.

Compliance with regulatory requirements is ensured through comprehensive Environmental Impact Assessments (EIA) for all hydroelectric projects, in accordance with the MoEF&CC's EIA Notification, 2006, and project-specific Terms of Reference. Environmental Management Plans (EMP), including project-specific Biodiversity Management Plans (BMP) are developed based on EIA findings and implemented in collaboration with State Forest Departments at NHPC's expense. Transparency remains a cornerstone of our governance approach, EIA and EMPs Reports are also submitted online on the website (PARIVESH) of MOEF&CC during the appraisal stage of environment clearance. Six-monthly Environmental Clearance compliance reports of projects are publicly disclosed on NHPC's website and submitted to regulatory authority.



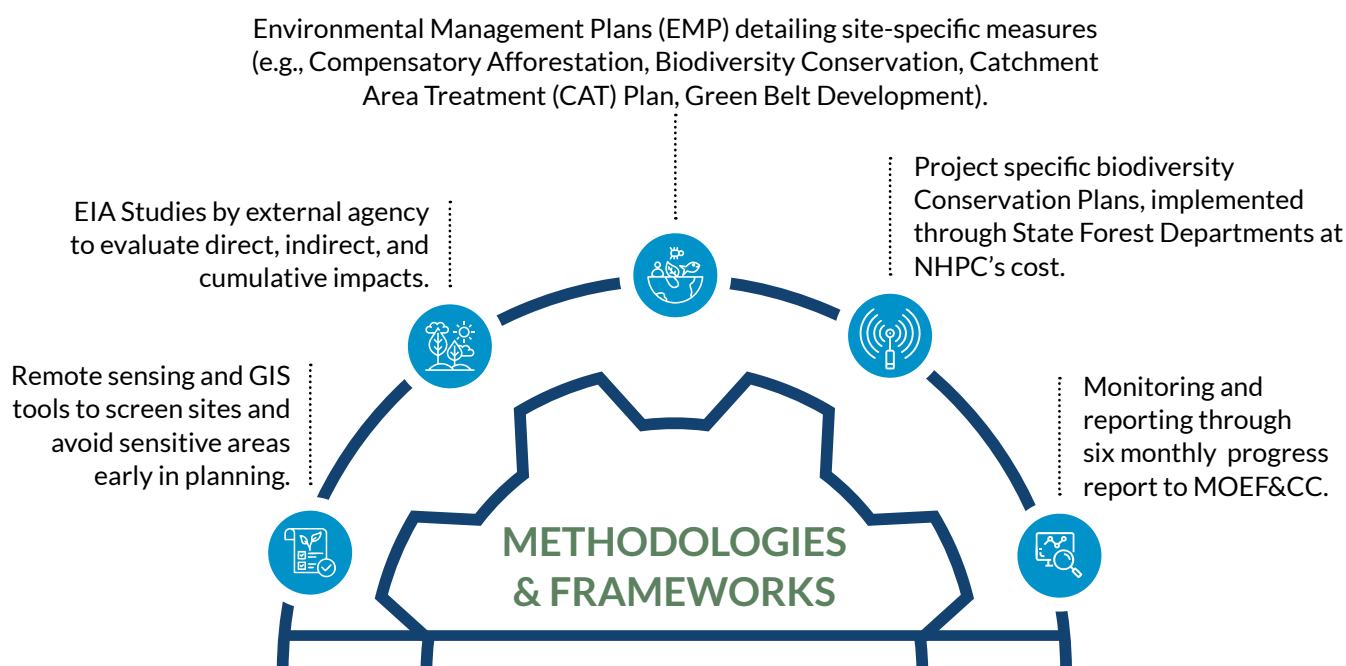
Plantation Drive during World Environment Day Celebration at Corporate Office, Faridabad

# Approach to Biodiversity Risk Assessment

## Location-Specific Assessment

During the Survey & Investigation (S&I) stage, each project undergoes a detailed EIA assessing biodiversity exposure and impacts within a 10 km radius of major components (dam/reservoir), covering local flora, fauna, habitat types, sensitive receptors, and cumulative environmental aspects in line with the Terms of Reference (TOR) issued by MoEF&CC. EIA studies are conducted by external agencies accredited by QCI. Based on analysis of biodiversity risk, site-specific Biodiversity Conservation

Plan is prepared in consultation with concerned State Forest Department for implementation during execution of project. About total 3454 Sq.km of study area has been covered for biodiversity assessment under EIA study of 11 nos. of hydropower stations each with study area covering 10km radius. The actual total area covered through the EIA will be updated in the coming years to measure and report with improved GIS accuracy (e.g., shapefiles and metadata), enabling more precise biodiversity screening and cumulative impact analysis.



## Integration into Risk Management

Biodiversity risk is embedded in NHPC's Risk Policy under Environmental Risk Management, ensuring biodiversity is factored into strategy, planning, and operations.

## Biodiversity Risks Considered

Biodiversity study covers both dependency-related and impact-related biodiversity risks. Dependency-related risks include the potential effects on ecosystem services such as water regulation and soil stability, habitat connectivity, and the rights of indigenous and forest-dwelling communities, which are safeguarded through Gram Sabha consultations under the Forest Rights Act, 2006. Impact-related risks focus on habitat loss, degradation, and species conservation, ensuring that threatened and endangered species are protected through targeted strategies.



Tulips at Corporate Office Complex, Faridabad



## Mitigation Hierarchy & Management Actions

NHPC follows a structured mitigation hierarchy to manage biodiversity risks.



### Avoid

Early-stage site screening using remote sensing and GIS helps avoid impacts on protected and high-biodiversity areas. The Forest Advisory Committee recommends prioritizing non-forest land for ancillary infrastructure such as residential colonies, reducing forest diversion.



### Reduce

Project designs are optimized to minimize environmental footprints. Environmental flow (E-flow) provisions are maintained to sustain aquatic ecosystems and downstream requirements.



### Restore

Restoration measures include compensatory afforestation to offset forest diversion impacts, fisheries management to maintain aquatic biodiversity, and landscaping to restore ecological balance. NHPC also pays the Net Present Value (NPV) of diverted forest land to account for lost ecological services.



### Regenerate

Green Belt Development and Catchment Area Treatment programs compensatory and voluntary afforestation are implemented to improve habitat quality, reduce soil erosion, and enhance biodiversity around project sites.



### Monitor & Report

Continuous monitoring is carried out through EIA and EMP frameworks. Six-monthly Environmental Clearance compliance reports are submitted and disclosed publicly, ensuring transparency and adaptive management.

## Key Initiatives

NHPC undertakes a range of initiatives to strengthen biodiversity conservation. Most of these initiatives are long term activities in terms of their maintenance and running. For example, Ex-situ conservation efforts include the establishment and maintenance of Orchidariums at Lower Subansiri Project (Assam), Tippi (Arunachal Pradesh), and TLDP-IV (West Bengal). A butterfly park has been developed at Teesta-V Power Station in Sikkim, and herbal parks have been created at Chamara Power Station Stage-I in partnership with the Research Institute in Indian System of Medicine, Mandi, Himachal Pradesh.

To support aquatic biodiversity, fish ladders have been installed at Uri-I, Tanakpur, TLDP-III, and TLDP-IV, while fish hatcheries and farms have been developed under Fisheries Management Plans. NHPC has also signed an MoU with ICAR-DCFR, Bhimtal, and the Directorate of Fisheries, Government of Arunachal Pradesh, for consultancy on the Fisheries Management Plan of Subansiri Lower HEP. Additionally, NHPC organizes environmental awareness and plantation drives during events such as World Environment Day, Van Mahotsav, and Azadi Ka Amrit Mahotsav across all offices, power stations, and project sites.



Fish Ladder at TLD-IV Power Station, West Bengal



During the reporting year, NHPC did not receive clearance and start construction of any new projects in or around ecologically sensitive areas. There were no recorded negative impacts or violations related to environmental, biodiversity, or ecological issues. Furthermore, NHPC has not incurred any significant fines exceeding USD 10,000 for environmental or ecological non-compliance in the past four financial years.

NHPC remains committed to advancing biodiversity conservation ensuring environmental flow in the downstream and scale up awareness initiatives while improving the monitoring and evaluation of compensatory afforestation, catchment area treatment, and green belt development for measurable ecological outcomes.

## Biodiversity Conservation in Himachal Pradesh

NHPC has actively supported biodiversity conservation in Himachal Pradesh through two major initiatives, developed in collaboration with the Wildlife Institute of India (WII), Dehradun for implementation by HP State Forest Department. The fund was released by NHPC under the environment management plan of Parbati HE Project Stage-II (800MW). An updated progress of biodiversity conservation initiatives till FY 2024-25 has been communicated by HP State Forest Department to NHPC. These efforts reflect NHPC's commitment to ecological preservation and sustainable development.

The first initiative, titled "Sustainable Livelihood-Based Approach to Biodiversity Conservation in the Great Himalayan Conservation Landscape," focuses on protecting the flora and fauna of the Parvati Valley while promoting sustainable livelihoods for local communities. NHPC released ₹16.17 crore for this

project, based on an Environment Management Plan prepared by WII in 2005. As of FY 2024-25, ₹14.63 crore has been utilized, with the remaining funds scheduled for use in FY 2025-26 and 2026-27.

The second initiative, "Conservation of Endangered Species in Himachal Pradesh," was designed to safeguard vulnerable wildlife across the state. NHPC contributed ₹20 crore toward this effort, which was fully utilized by FY 2016-17 under the guidance of the Wildlife Wing of Himachal Pradesh, following an approved strategic plan. Together, these projects underscore NHPC's integrated approach to environmental management—combining scientific planning, community engagement, and long-term ecological impact. They align with NHPC's broader sustainability goals and contribute to India's national biodiversity commitments.



Phumdi in Loktak Lake, Loktak Power Station, Manipur

# Social

## Building Inclusive Communities, Creating Shared Value

NHPC's sustainability vision extends beyond energy generation to creating shared value for communities. We prioritize inclusive growth through proactive engagement, livelihood enhancement, education, healthcare, and skill development programs in project-affected areas. Resettlement and rehabilitation scheme are designed to uphold dignity and improve quality of life, while our CSR initiatives foster socio-economic development and cultural preservation. By promoting safety, diversity, and well-being within our workforce and communities, NHPC continues to power progress responsibly.

## In this section

Human Capital Development

Diversity & Equal Opportunities

Employee Development and Capability Building

Human Rights & Fair Labor Practices

Responsible Supply Chain

Occupational Health, Safety & Wellness

Community Engagement & CSR Impact

*Basant Utsav at Corporate Office, Faridabad*



## Highlights



Great Place to Work Certification  
Certified culture of trust and inclusion



**92.51%**  
Beneficiary satisfaction score (DISCOMs)



**28,323**  
Training man-days delivered



**4,842**  
Tier-1 suppliers



**86,053**  
Local beneficiaries via project dispensaries



**₹109.64 crore**  
CSR spend



**0**  
Fatalities and recordable injuries



**56.12%**  
Procurement from MSEs



**100%**  
Healthcare coverage for employees/  
dependents



**100%**  
Parental leave return and retention

# Human Capital Development

## Empowering People, Driving Performance

At NHPC, our people are our greatest strength. We believe that a skilled, motivated, and engaged workforce is the foundation of sustainable growth. Our human capital strategy focuses on creating a workplace that fosters learning, innovation, and well-being, ensuring that employees remain future ready in a rapidly evolving energy sector.

Human Resource Development (HRD) at NHPC is more than a function it is a strategic enabler. Our initiatives are designed to align employee competencies with organizational goals, ensuring adaptability and resilience in a dynamic business environment. We emphasize continuous learning, leadership development, and capability building to nurture talent that can deliver on our ambitious growth plans.

### Building Skills for the Future

We invest in comprehensive programs that go beyond recruitment, focusing on attracting, developing, and retaining top talent. Our structured training and

development framework equips employees with technical expertise, managerial skills, and digital capabilities, enabling them to thrive in the renewable energy transition.

### Employee Well-being and Engagement

NHPC promotes a culture of trust, inclusivity, and recognition. We prioritize health, safety, and work-life balance, supported by policies that ensure equal opportunities and diversity. Our initiatives aim to enhance employee satisfaction and engagement, reinforcing NHPC as an employer of choice.

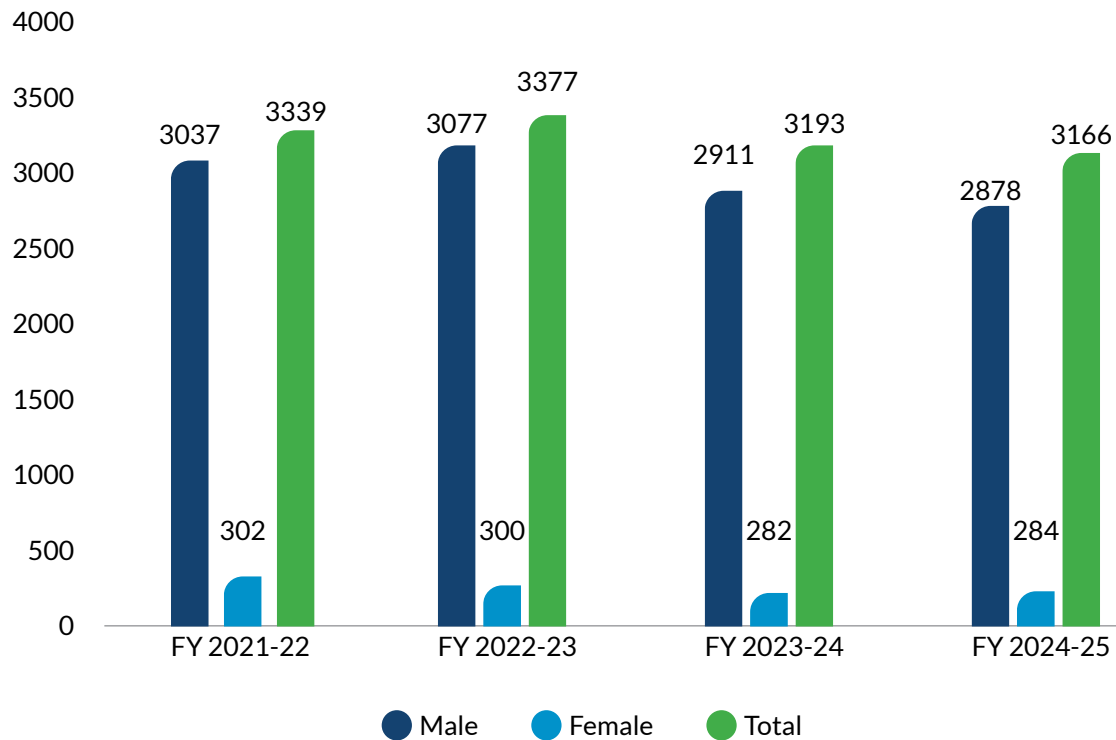
As of March 31, 2025, NHPC had a total workforce of 4,577 employees, comprising 3,166 executives and 1,411 permanent workers, including supervisors and workmen. This figure represents employees working across NHPC's standalone operations as well as those deputed to joint ventures. Permanent employees refer to regular full-time staff across both executive and non-executive roles.



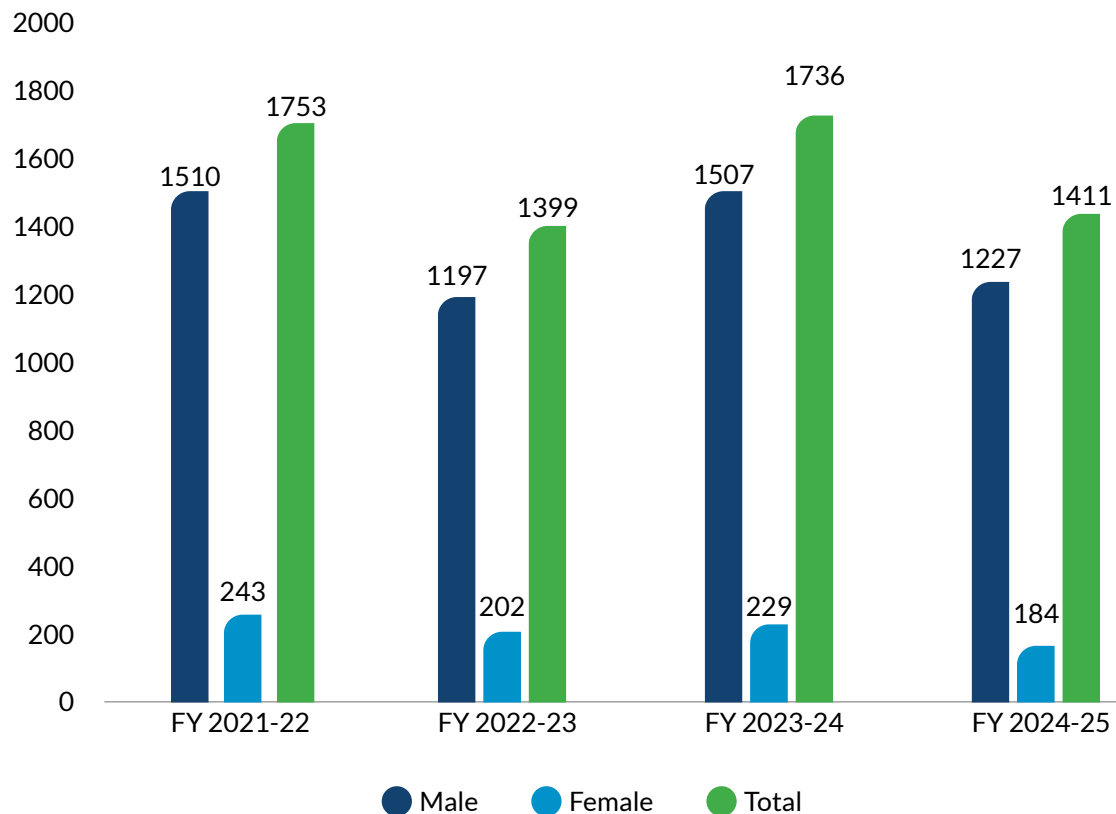
UDAAN - Corporate Adventure Outbound training program for Women Executives



### No. of Permanent Employees at NHPC (Executive employees)



### No. of Permanent Workers at NHPC (Non-executive employees)

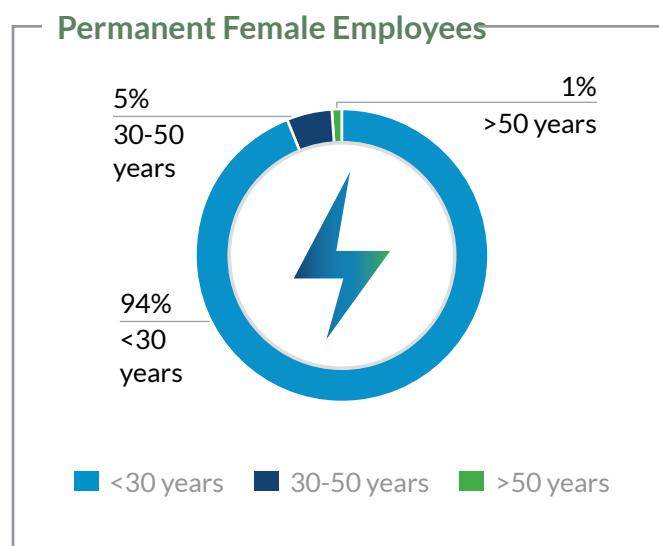
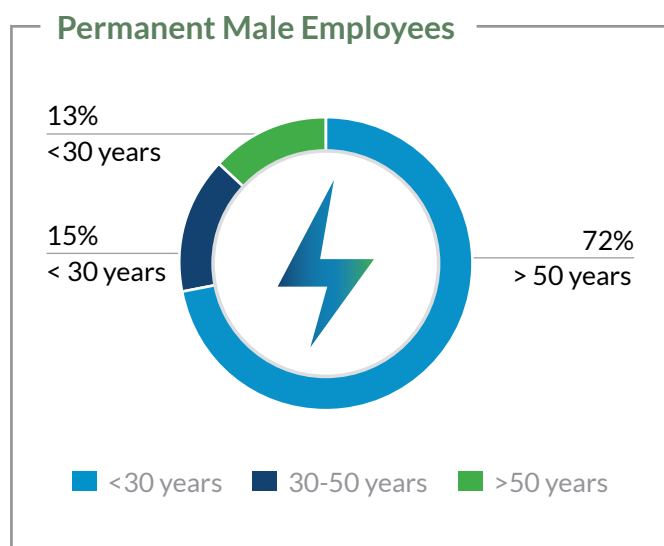


## Details of NHPC's Workforce

Workforce description	FY 2021-22			FY 2022-23			FY 2023-24			FY 2024-25		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Management	240	13	253	1,734	149	1,883	427	23	450	694	42	736
Executives (Non-Management)	2,797	289	3,086	1,343	151	1,494	2,484	259	2,743	2,188	242	2,430
<b>Total permanent employees</b>	<b>3,037</b>	<b>302</b>	<b>3,339</b>	<b>3,077</b>	<b>300</b>	<b>3,337</b>	<b>2,911</b>	<b>282</b>	<b>3,193</b>	<b>2,882</b>	<b>284</b>	<b>3,166</b>
Permanent Workers	1,510	243	1,753	1,197	202	1,399	1,507	229	1,736	1,227	184	1,411
<b>Total Permanent workforce</b>	<b>4,547</b>	<b>545</b>	<b>5,092</b>	<b>4,274</b>	<b>502</b>	<b>4,736</b>	<b>4,418</b>	<b>511</b>	<b>4,929</b>	<b>4,109</b>	<b>468</b>	<b>4,577</b>
Contract Workers	6,241	781	7,022	6,241	781	7,022	6,756	878	7,634	6,952	874	7,799
<b>Total Workforce</b>	<b>12,114</b>			<b>11,798</b>			<b>12,563</b>			<b>12,376</b>		

Note: NHPC does not engage Contractual Workers. However, NHPC awards Running & Maintenance /Service Contracts through tender process to the successful bidders/ contractor. In turn, Contractors engage Contract Labour to execute the R&M/Service contracts at the establishments of NHPC Limited in accordance with the provisions under Contract Labour (Regulation & Abolition) Act 1970.

## Gender-wise age group distribution in FY 2024-25



## NHPC's Great Place to Work Certification

### Objective

NHPC set out to obtain an independent, employee-centered view of its workplace culture to validate strengths, pinpoint improvement areas, and guide people priorities within its sustainability strategy. The focus was to understand how employees experience trust, fairness, pride, respect, and camaraderie so that actions could strengthen engagement, inclusion, and long-term value creation.

### Process

An organization-wide Trust Index survey was conducted across the five dimensions of a great workplace. The assessment produced an overall Trust Index of 71% positive, along with detailed statement-level and demographic insights. This provided a clear picture of where NHPC's culture is strongest and where greater transparency and equity would most improve trust.

### Outcomes

The results affirm a strong foundation anchored in equitable rewards and shared purpose. Employees report high confidence in fair pay (84%) and in receiving a fair share of organizational profits (81%), alongside very strong pride in NHPC's contribution to society (91%). The assessment also highlights priorities to deepen trust and inclusion, with lower agreement on promotions going to those who best deserve them (46%), managers avoiding favourites (49%), and performance being fairly evaluated (56%). Experience patterns vary by cohort, with stronger sentiment among employees aged 55+, those in below supervisory roles, and women, and relatively lower sentiment among mid-tenure employees, fully remote employees, and employees aged 25 or younger. These insights inform NHPC's people agenda to enhance fairness, transparency, and inclusion, supporting better recruitment, lower turnover, and higher productivity in line with the company's sustainability goals. The company is now Great Place to Work-Certified.





## New Employee Hires

NHPC continues to strengthen its workforce by welcoming new talent that complements the expertise of seasoned professionals. This blend of experience and fresh perspectives fosters innovation, adaptability, and collaboration key drivers in today's evolving energy landscape. By hiring individuals from diverse regions and backgrounds, NHPC builds an inclusive environment that values varied skills and ideas, ensuring collective progress and organizational excellence.

In line with our commitment to growth and inclusivity, NHPC actively recruits individuals who bring unique capabilities and fresh perspectives. These new hires not

only enhance our operational capacity but also contribute to building a culture of innovation and continuous improvement.

Our efforts to promote gender diversity have shown measurable progress during FY 2024-25. Similarly, the Supervisory and Workmen categories have also recorded improvements in female participation, in our inclusivity journey. While women currently represent a smaller proportion of the overall workforce, these positive trends underscore our ongoing commitment to bridging the gender gap and fostering a balanced workplace.



Six - Week Induction cum Orientation Training Programme for Jr. Engineers of NHPC Limited  
(11th November, 2024 - 20th December, 2024)

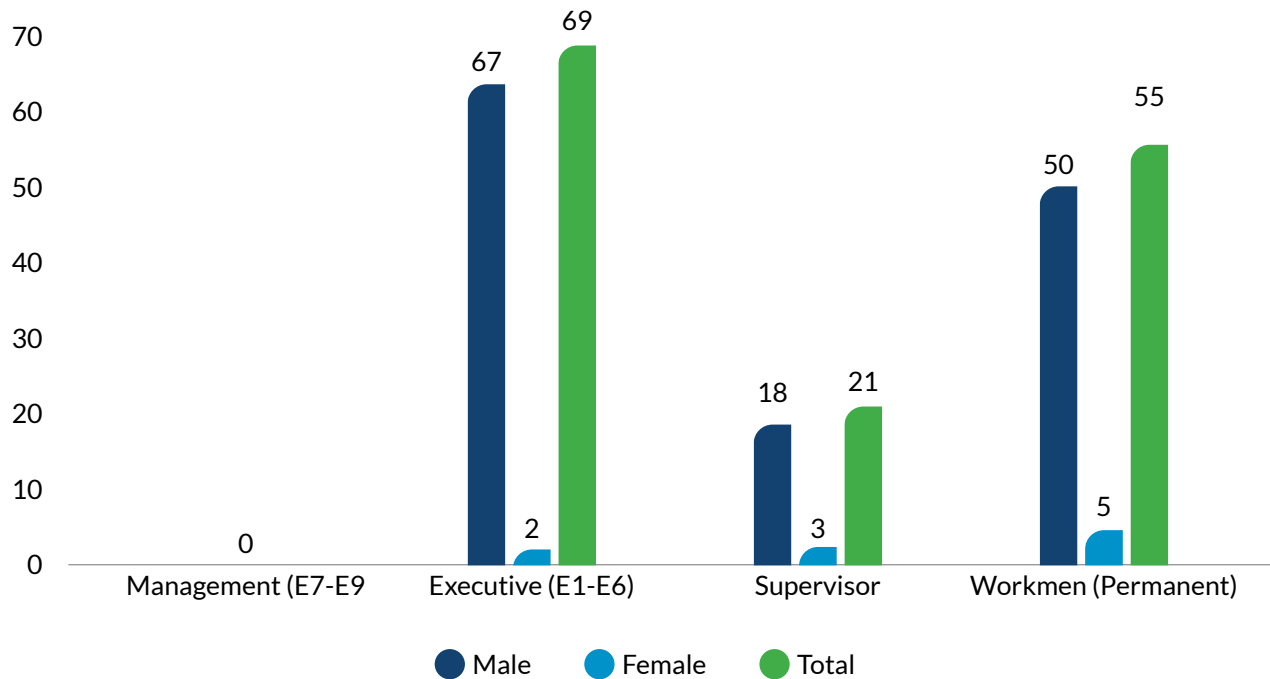


### Details of New Hires

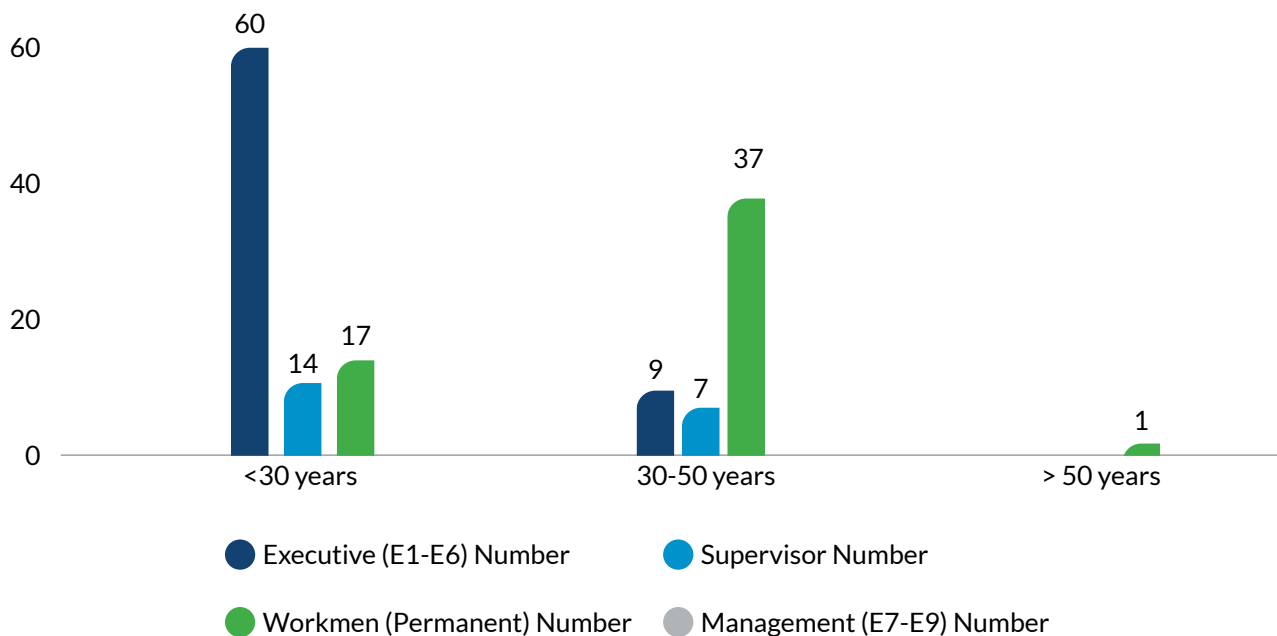
New hires based on Age	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Below 30 years	31	131	419	91
30 to 50 years (including 30 and 50)	11	26	78	53
More than 50 years	0	0	1	1

New hires based on Gender	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Male	32	151	463	135
Female	10	6	35	10

### Category-wise New Hires in FY 2024-25



### Age-distribution of New Hires in FY 2024-25



## Employee Turnover Rate

NHPC's workforce demonstrated resilience and continuity in FY 2024-25, with orderly, retirement-led transitions and stable leadership across key roles. We proactively monitor turnover by age band and cadre to support capability building, safety, and a positive employee experience, using insights to strengthen succession planning, learning pathways, and internal mobility.

In FY 2024-25, Turnover was concentrated among employees over 50 years predominantly retirement-driven with Workmen 196, Supervisors 36, Executives 38 and 30 in Management. Under-30 exits reflected early-career mobility, led by Supervisors 92 and Executives 29, (Workmen 3; Management 0. Mid-career (30-50 years) departures remained modest across cadres: Executives 12, Supervisors 15 and Workmen 3, with no exits in Management.

Compared with FY 2023-24, over-50 Workmen separations declined to 196 from 217, indicating a moderating retirement wave. Executive turnover shifted at both ends of the age curve under-30 increased to 29 (from 23), 30-50 decreased to 13 (from 17) and over-50 rose to 67 (from 48). Among Supervisors, under-30 exits rose sharply to 92 (from 18), 30-50 increased to 15 (from 2) and over-50 remained broadly stable at 36 (from 35). No separations were recorded in the Management cadre this year, versus 40 departures of over-50 employees in the prior year; under-30 remained zero.

NHPC continues to manage retirement-led churn through succession planning and structured knowledge transfer, while strengthening onboarding, learning pathways and internal mobility to enhance early-career retention and safeguard continuity in critical roles.

### Employee Turnover in FY 2024-25



### Employee Turnover Rate in FY 2024-25

Particulars	FY 2023-24	FY 2024-25
Total employee turnover rate	1.46%	1.56%
Voluntary employee turnover rate	1.46%	1.56%

### Breakdown of Employee Turnover Rate in FY 2024-25

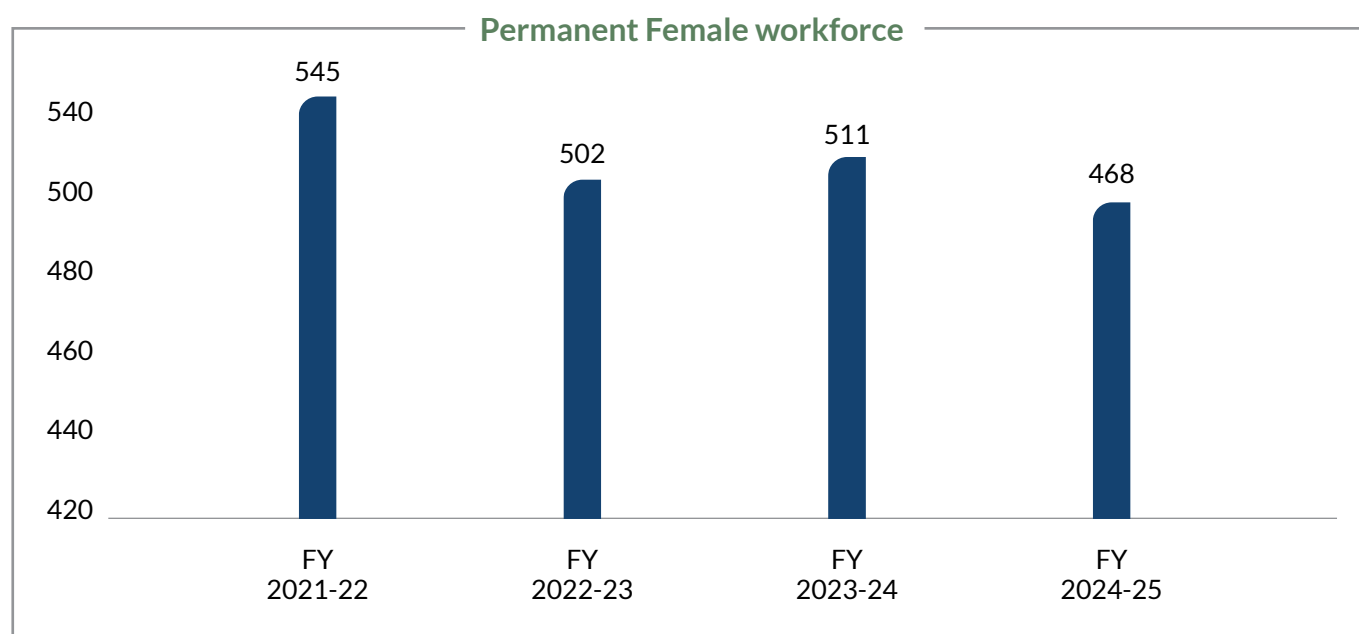
Category	Gender	Percentage
Total Employee Left	Male	1.53%
	Female	1.91%
Total Employee Left Voluntary	Male	1.53%
	Female	1.91%

# Diversity & Equal Opportunities

We are committed to diversity and equal opportunities, ensuring merit-based employment and development with zero tolerance for discrimination or harassment. Our hiring, pay, progression, and training practices are accessible and inclusive. Contractual engineers for each hydro project are recruited from local communities, subject to requisite qualifications, safety standards, and fair employment practices.

## Gender Diversity and Women Empowerment

We are committed to increasing female representation across all levels and have implemented several initiatives to support women employees:



**10.23%**

overall woman employee strength

**5.07%**

women in management positions in revenue generating functions\*\*

**4.4%**

women in STEM-related positions\*

**5.82%**

women in junior management positions\*\*\*

\*Excluding IT positions

\*\*Revenue-generating functions refer to line management roles in departments such as sales, or that contribute directly to the output of products or services. May also be referred to as roles that have P&L responsibility. STEM: Science, technology, engineering and mathematics. (E7-E9)

\*\*\*Junior management refers to employee bands E7 to E8



## Women Empowerment Initiatives



### Training & Development

Women employees are regularly nominated for leadership and empowerment programs.



### Representation in Selection Committees

Women representatives are included in recruitment and promotion boards.



### Medical Benefits

Option to declare parents or in-laws as dependents under medical rules.



### Crèche Facility

Available at NHPC Corporate Office for children aged 6 months to 6 years



### Maternity & Childcare Benefits

Up to 180 days of maternity leave and 730 days of paid childcare leave for two children (with no age limit for children with 40% disability).



### Internal Complaints Committees (ICCs)

Established at all locations to address sexual harassment complaints.



### WIPS Cell

A dedicated Women in Public Sector forum operates at the Corporate Office.

## Matritva – Supporting Motherhood at the Workplace

NHPC introduced “Matritva”, a special welfare initiative designed to provide unwavering support and care to female employees during their journey to motherhood while continuing their professional responsibilities.

Under this initiative, NHPC ensures a nurturing and comfortable work environment for expecting mothers through the following measures:

- **Nutritional Support:** A daily serving of fresh fruits, dry fruits, milk, or juice during working hours to promote maternal health and well-being.

- **Ergonomic Comfort:** Provision of a paddle stool to help elevate feet, ensuring a comfortable sitting posture and reducing fatigue.
- **Positive Workspace:** A planter and an uplifting picture are placed at the employee’s workstation to create a cheerful and positive atmosphere.

This initiative reflects NHPC’s commitment to employee well-being, gender inclusivity, and sustainable workplace practices, aligning with UN SDG 3 (Good Health and Well-being) and SDG 5 (Gender Equality).



Good to Great Leadership Programme

Total workforce	Units	
-Number of women in junior management positions, i.e. first level of management (as % of total junior management positions) (E7 to E8)	Quantitative	41
-Share of women in junior management positions, i.e. first level of management (as % of total junior management positions) (E7 to E8)	%	5.82
-Number of women in top management positions, i.e. maximum two levels away from the CEO or comparable positions (as % of total top management positions) (E9 and above)	Quantitative	1
-Share of women in top management positions, i.e. maximum two levels away from the CEO or comparable positions (as % of total top management positions) (E9 and above)	%	3.23
-Number of women in management positions in revenue-generating functions (e.g. sales) as % of all such managers (i.e. excluding support functions such as HR, IT, LAW, Rajbhasha) (E7 to E9)	Quantitative	34
-Share of women in management positions in revenue-generating functions (e.g. sales) as % of all such managers (i.e. excluding support functions such as HR, IT, LAW, Rajbhasha) (E7 to E9)	%	5.07
-Number of women in STEM-related positions (as % of total STEM positions)only technical discipline (excluding IT)	Quantitative	113
-Share of women in STEM-related positions (as % of total STEM positions)only technical discipline (excluding IT)	%	4.4

## Empowering Persons with Disabilities (PwD)

NHPC is committed to creating an enabling environment for differently-abled employees. Our workforce includes 13 visually impaired, 7 hearing impaired, and 109 orthopedically impaired employees (including those deputed to JVs). Key initiatives include:

### Sustainability Initiatives for Persons with Disabilities



#### Exemption from Rotational Transfers

PwD employees and caregivers of specially-abled children can choose preferred postings.



#### Medical Benefits for Disabled Children

There is no age restriction for considering specially-abled children as dependents for medical and other benefits.



#### Vocational Training Assistance

Financial support for employees who become physically challenged during service.



#### Smart Stick and Smart Glass for Visually Impaired

Reimbursement towards Smart Stick/Smart Glass for visually impaired is allowed to employees and their dependents once in 2 years, which is allowed beyond the OPD ceiling.



#### Hearing Aid Reimbursement

For employees and their dependents.



#### Artificial Limbs Assistance

Reimbursement of the cost of artificial limbs is provided, along with an interest-free loan for employees and their dependents.

## Gender Pay Equity

At NHPC, we are committed to fostering an inclusive workplace where every individual is valued and rewarded fairly. Gender pay equity is a critical component of this commitment. We continuously strive to ensure that compensation practices are transparent, equitable, and free from bias.

To achieve this, we regularly review our salary structures and remuneration policies, aligning them with industry benchmarks and best practices. Our approach is guided by the principle of “equal pay for equal work”, ensuring

that employees performing similar roles with comparable experience and responsibilities receive fair compensation, regardless of gender.

As part of our ongoing efforts, we monitor and analyze pay data across all levels of the organization. This helps us identify and address any disparities proactively. The table below presents the ratio of basic salary and total remuneration (including allowances and benefits) for male and female employees, reflecting our commitment to maintaining gender pay parity.

Details of Average Pay in INR (Rupees)					
	As per NHPC	MALE		FEMALE	
		Basic	Basic + Bonus	Basic	Basic + Bonus
Management Level (All management-level positions from first-line/junior managers up to top/senior managers with a reporting line 2 levels or less from the CEO, but excluding executive-level positions)	Executive (E1-E6)	11,55,028	30,91,376	11,58,807	30,09,382
Executive level They hold senior positions and impact company-wide decisions. Executives usually report directly to the CEO, and the CEO is included in the definition of executive level	Management (E7-E9)	17,98,801	51,28,263	19,07,314	52,26,737
Non Executive/Managerial (Employees in charge of executionary functions, such as production and administrative positions. These employees have limited or no managerial role)	Non executive (Workmen and Supervisors)	7,86,053	18,79,914	7,88,702	18,85,108



International Women's Day celebration at Corporate Office, Faridabad



# Employee Development and Capability Building

Our Employee Development Plan for 2024–25 is designed to nurture talent, strengthen capabilities, and align individual growth with organizational objectives. This comprehensive framework addresses diverse learning needs, ensuring employees are equipped to thrive in an evolving business landscape.

## Strategic Focus Areas

The plan encompasses a wide spectrum of programs aimed at enhancing both professional and personal competencies. Key focus areas include:



### Advanced Technical Expertise

Training on emerging technologies, including renewable energy innovations and digital transformation tools.



### Health, Safety, and Sustainability

Programs reinforcing workplace safety, environmental stewardship, and sustainable practices.



### Leadership and Behavioral Skills

Initiatives to develop managerial acumen, communication skills, and collaborative leadership.



UDDAN Corporate Adventure Outbound Program for Women Executives



## Learning Methodologies

To maximize impact, we adopt a blended learning approach that combines classroom sessions, virtual learning platforms, and experiential programs. Partnerships with leading academic and industry institutions ensure access to cutting-edge knowledge and global best practices.

## Employee Training Programs

NHPC views training and development as central to employee growth and organizational success. In FY 2024-25, the Company delivered 28,323 man-days of learning across domain-specific and emerging technologies spanning Civil and Electrical Engineering, Design Engineering, HR, Finance, as well as managerial and soft skills through targeted skill programs and broader career development initiatives. Employees were nominated to customized programs at premier institutions, including IIMs, IITs, XLRI, ASCI, and GE T&D India Limited, with 755 executives sponsored during the year. In addition, executives pursued higher education (e.g., MBA, M.Tech) and participated in international immersion programs to gain exposure to global practices in renewable energy development, management best practices, and related areas. NHPC reports an average of 37 hours of training and development per full-time employee (FTE). NHPC advanced diversity through focused initiatives: beyond broad participation by women in India and abroad, six exclusive programs were organized for female employees, including three outbound courses. A robust learning culture was further supported through workshops and knowledge-sharing sessions in both physical and virtual modes, alongside specialized Corporate Governance programs for senior officials.

### Average hours of training per year per employee in FY 2024-25 (Hrs.)

Employee Category	Male (Training hours)	Female (Training hours)
Management (E7-E9)	30	42
Executives (E1-E6)	28	38
Supervisor	141	100
Workmen	6	7

### Total number of employees receiving trainings and development programs in FY 2024-25

Employee Category	Male (Nos.)	Female (Nos.)
Management (E7-E9)	505	40
Executives(E1-E6)	1,502	209
Supervisor	384	30
Workmen	201	43



Art of Good Living Programme for Employees

## Empowering a Future-Ready Workforce

Through these initiatives, we aim to foster a culture of continuous learning and adaptability. Our development programs not only enhance technical proficiency but also promote holistic growth, enabling employees to contribute meaningfully to organizational success. The details of some of the employee development programs are listed below:

Name of the Programme	Details of Programme/ Training Curriculum	Impact of Training session to participants and NHPC	% of Total Full time employees
Induction cum Orientation Program for Junior Engineers/ Supervisors/ Sr. Accountants/ Hindi Translators	Onboarding of new employees, providing overview of functioning of all departments of NHPC.	<ol style="list-style-type: none"> <li>Helps in retaining employees.</li> <li>Helps in understanding the functioning of various departments of the organization.</li> <li>Helps the new joinees to understand the company culture and values</li> <li>Inculcate sense of belongingness</li> <li>Enhancing knowledge and skills</li> </ol>	6.48
Leadership Development Programs	Strategic Management, Corporate Governance, Business Ethics	<ol style="list-style-type: none"> <li>Helps in increasing leadership skills</li> <li>Helps in increasing confidence and self-esteem</li> <li>Develops strategic thinking</li> <li>Improved performance</li> <li>Helps in better Decision-Making</li> <li>Helps in professional growth</li> <li>Helps in succession planning</li> </ol>	7.89
Technical and Functional programs	Technical and functional program curriculum includes topics on functioning of NHPC like Power House, Dam, Hydro-mechanical, Finance, HR, Environment etc. And future work avenues of NHPC in the field of Renewable Energy	<ol style="list-style-type: none"> <li>Helps in increasing knowledge and skills</li> <li>Helps in improving problem solving ability</li> <li>Helps in career advancement</li> <li>Higher job satisfaction</li> <li>Helps in increasing productivity</li> <li>Helps in improving performance</li> <li>Reduction in errors</li> </ol>	35.81
Health and Wellness programs	Curriculum includes sessions on physical and mental well being of employees	<ol style="list-style-type: none"> <li>Improved physical and mental health</li> <li>Helps to reduce risk of chronic diseases</li> <li>Helps in improving the quality of life</li> <li>Helps in reducing healthcare costs</li> <li>Helps in increasing productivity</li> <li>Helps in improving employee engagement</li> <li>Helps in reducing absenteeism</li> </ol>	14.69

Name of the Programme	Details of Programme/ Training Curriculum	Impact of Training session to participants and NHPC	% of Total Full time employees
Quality and Safety programs	IMS, SA8000:2014, ISO 9001:2015 Quality Management System, First Aid & Safety, Safety provisions/ guidelines for Construction Activities, Safety Management in O&M of Power Plants, Disaster Plan, Fire Safety Management & Chemical Safety, Risk Informed Dam Safety Management, Fire-Fighting and Fire Safety, Various Dam & Power House Safety aspect, General Safety Awareness, Occupational Health and Safety, Electrical Safety, Fire Safety	<ol style="list-style-type: none"> <li>1. Reduces the risk of accidents and injuries</li> <li>2. Helps in increasing efficiency</li> <li>3. Enhance emergency response</li> <li>4. Increasing productivity</li> <li>5. Reduces injury rates</li> <li>6. Helps in hazard identification</li> <li>7. Regulatory compliance and legal protection</li> <li>8. Enhancing the reputation of the company</li> </ol>	8.33

## SAARTHI – NHPC’s Mentoring Scheme

Saarthi is NHPC’s company-wide mentoring initiative to onboard and develop newly recruited executives (primarily E2/E3) across hydro, solar and wind portfolios. It accelerates cultural assimilation, builds technical and leadership capability, and fosters a learning-led, ethical workplace.

- **Governance:** Anchored by Corporate T&HRD. Mentors are senior employees with substantial NHPC experience and strong performance track records; participation is voluntary, and confidentiality is mandatory. As far as possible, cross-functional mentors are allotted by the HR Division of the concerned location; pairing is preferably within the same unit/region and, as feasible, same gender.
- **Process:** Mentor pool creation and orientation; mentors and a Buddy are attached preferably before joining or within one week of joining. Mentor-mentee teams meet 2–5 times per quarter, with e-mentoring enabled when required. Corporate T&HRD nurtures and sustains the relationship during the first three years; beyond this, it may continue informally

with mutual consent. Reporting is enabled through online submission of Mentor’s Reports in Sahaj Sewa.

- **Roles:** Mentors act as role models and coaches on NHPC’s culture, values, norms and career pathways; mentees own their goals, meet regularly, act on guidance and build networks. A Buddy (typically one–two grades above, preferably from the same function/department) welcomes the new joiner, helps navigate surroundings, introduces colleagues, supports understanding of policies and culture, and facilitates networking.

Recognition and outcomes: Mentor’s Day celebrated annually; visibility through intranet and success stories; mentoring reflected in KPAs under HR parameters. The scheme strengthens human capital, speeds assimilation at remote sites, improves engagement and retention, and builds a leadership pipeline—supporting SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation and Infrastructure).

## Performance Management and Career Development

We recognize that employee performance and career growth are integral to organizational success. Our performance management framework is designed to foster continuous feedback, transparent evaluation, and structured career progression, ensuring alignment between individual aspirations and business objectives.

### Structured Performance Review Process

We follow a Management by Objectives (MBO) approach, enabling employees and their appraising authorities to engage in meaningful discussions about achievements, competencies, and development opportunities. This process ensures clarity on expectations and supports employees in setting measurable career goals.

Our Performance Appraisal Report (PAR) system provides a comprehensive evaluation based on key parameters such as:



This holistic assessment incorporates 360-degree feedback, offering employees constructive insights into their strengths and areas for improvement.

## Annual Review Cycle

Performance reviews are conducted annually for all permanent employees at the close of the financial year. The appraisal process involves three levels of review: Initiating Officer, Reviewing Officer, and Accepting Officer to ensure fairness and objectivity. For personal staff attached to senior officials, a single individual may perform all three roles.

Outstanding performance is celebrated through our "Star of NHPC" award, presented during the Annual Raising Day celebration. This recognition reinforces our culture of excellence and motivates employees to achieve their full potential. The HR Division plays a critical role in ensuring the completeness and impartiality of the appraisal process. All evaluations are systematically reviewed and forwarded to the PAR cell for record-keeping and compliance.

Employees receiving regular performance reviews in FY2024-25 (No. s)		
Employee Category	Male	Female
Management (E7-E9)	690	42
Executives(E1-E6)	2,188	242
Supervisor	476	33
Workmen	751	151



Employee Development Training session



# Strengthening Employee Well-being through Comprehensive Benefits

At NHPC, we believe that the success of our organization is deeply connected to the well-being and satisfaction of our employees. Our benefits framework is designed to provide holistic support—covering health, financial security, and personal development—ensuring that every member of our workforce feels valued and empowered.



International Yoga day at Bairasiul Power Station



Free Multispecialty Health Camp

## Healthcare and Wellness

NHPC provides extensive medical facilities for employees and their dependent family members under the Medical Attendance Rules and the Retired Employees' Health Scheme (REHS). To enhance accessibility and efficiency, we have implemented e-Sushrut, a Hospital Management Information System (HMIS) developed by C-DAC, enabling seamless healthcare services across our network.



Free Multispecialty Health Camp



### Health Mela

Multiple free multi-specialty Health camps – hosted at Corporate Office, office colonies for all employees of NHPC Ltd. And their dependents, retired employees and contract workers in association with empaneled hospitals.



Free Multispecialty Health Camp



### HPV Vaccination Drive

Specialised vaccination drive held in association with Serum Institute of India- to provide CERVAVAC® (Cervical Cancer Vaccination) to young girls and women for the prevention of diseases caused by Human Papillomavirus (HPV)



Health Talk on the event of Anti-Tobacco day celebrations at Corporate Office Faridabad



### Health talk Sessions

Webinars and talks organized by Medical services division, Corporate Office for raising awareness on respiratory illnesses, prevention and elimination of Tuberculosis, Internal medicine and many other topics. Sessions were held for existing and retired employees of NHPC to drive awareness on prevalent issues and how to protect oneself from such diseases through health upliftment and management.

A team from NHPC visited Senior Secondary School in Sarai Khawaja, Faridabad with the objective of creating awareness about Importance of Liver ,liver diseases, fatty liver and its risks and complications ,How can it be prevented ,How to maintain healthy diet -amongst the SCHOOL CHILDREN.



Awareness talk on Liver disease among School children, Senior Secondary School in Sarai Khawaja, Faridabad



### NHPC Sports Scholarship Scheme for Upcoming Sportspersons

During the reporting year, NHPC invited online applications for its Sports Scholarship Scheme to nurture young talent across 16 disciplines, including para sports. The scheme targets athletes aged 14-19 years (14-24 years for para sports) with up to 32 scholarships awarded for three years in two categories: Elite Scholar (Rs. 12,000/13,000/14,000 per month in Years 1/2/3) and Scholar (Rs. 9,000/10,000/11,000 per month in Years 1/2/3), with additional benefits as per guidelines. The initiative advances NHPC's commitment to youth development, inclusivity and community well-being, aligning with the company's social performance priorities and relevant UN SDGs.



### Fit India Swachhata Freedom Run 5.0

In line with Ministry of Power directions, NHPC observed the Fit India Swachhata Freedom Run 5.0 from 2-31 October 2024 across the Corporate Office and all Projects/Power Stations, promoting the twin themes of cleanliness and health. Employees at all locations took the Fit India Pledge and participated in runs and walks to build habits of active living; families, children and contract workers also joined with enthusiasm. The initiative was amplified through social media, and participants used the Fit India mobile app to track distances.



### Run for Unity

On 31 October 2024, National Unity Day was commemorated with the National Unity Pledge administered by the Chairman & Managing Director, Shri R. K. Chaudhary, in the presence of Functional Directors at the Corporate Office, with Heads of Project administering the pledge across units. A "Run for Unity" was organized at the Corporate Office and all locations to promote fitness across age groups, reinforcing NHPC's commitment to employee well-being, community engagement and national initiatives such as Swachh Bharat, Swasth Bharat.

## Tele-MANAS at NHPC: 24/7 Mental Health Support

NHPC amplifies the Government of India's Tele-MANAS programme by widely disseminating the toll-free helpline (14416 / 1-800-891-4416) via intranet, emails, site notice boards, toolbox talks, townhalls, and CSR outreach ensuring employees, contractors, dependents, and communities around remote project sites can access free, confidential support anytime. Tele-MANAS offers immediate counseling and specialist audio/video consultations, in 20 languages with a mobile app for self-care; NHPC integrates these resources into its wellbeing and safety communications to drive awareness and uptake.

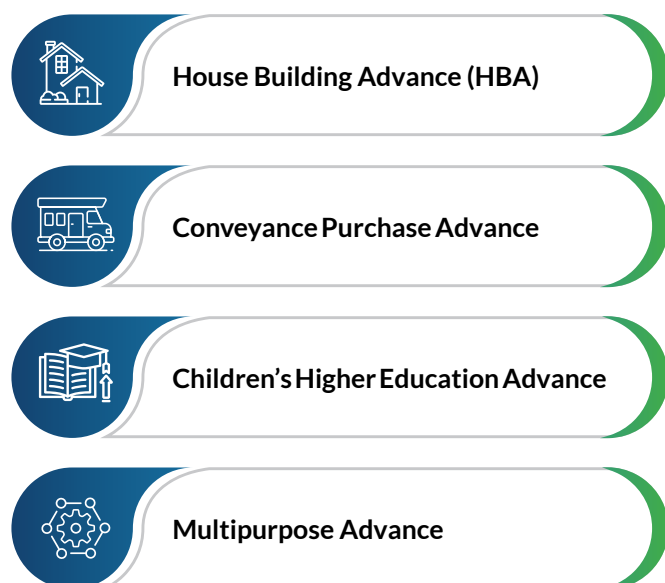


## Insurance and Risk Coverage

Employee safety and security remain a top priority. All regular employees are covered under the Group Personal Accident Insurance Scheme and the Employees' Deposit Linked Insurance Scheme (EDLI), providing financial protection and peace of mind.

## Financial Assistance and Development Support

NHPC extends multiple financial assistance programs, including:



These initiatives reflect our commitment to supporting employees in achieving their personal and professional aspirations.

## Creating a Supportive Work Environment

Our comprehensive benefits package underscores NHPC's dedication to fostering a caring, inclusive, and growth-oriented workplace. By prioritizing employee well-being, we not only recognize their contributions but also create an environment where individuals can thrive—professionally and personally.

## Defined Contribution Plans



### Social Security Scheme

To safeguard families against unforeseen circumstances, NHPC offers a monthly matching contribution for each employee. This scheme provides financial assistance in the event of an employee's death or permanent total disability.



### Employees' Defined Contribution Superannuation Scheme (EDCSS)

Under this scheme, employees contribute 5% of their Basic Pay and Dearness Allowance, ensuring a secure pension plan for their post-retirement life.



### Provident Fund

NHPC contributes a fixed amount to the Provident Fund at predetermined rates. These contributions are managed by a dedicated Trust and invested in approved securities, ensuring stability and growth of funds.



### Gratuity

Employees completing five or more years of service are eligible for gratuity benefits as per the Payment of Gratuity Act, 1972. The benefit is calculated at 15 days' wages for each completed year of service, subject to a maximum of INR 0.20 Crore, payable upon superannuation, resignation, termination, disablement, or death.



### Retired Employees Health Scheme (REHS)

NHPC extends medical facilities to retired employees, their spouses, and eligible dependent children through company hospitals and empaneled healthcare providers, ensuring continued healthcare support post-retirement.





### Allowances on Retirement or Death

To ease the transition, NHPC provides relocation assistance to employees upon retirement and to families of deceased employees. These benefits are determined through actuarial valuation to ensure fairness and adequacy.



### Memento on Superannuation

As a token of appreciation for years of dedicated service, employees receive a memento valued at INR 10,000 upon superannuation.

### NHPC Employees' Family Economic Rehabilitation Scheme

NHPC remains committed to safeguarding the financial security of its employees and their families. In line with this commitment, the NHPC Employees' Family Economic Rehabilitation Scheme, introduced in April 2021, provides financial assistance to employees in the event of permanent total disability and to families in the unfortunate event of an employee's death during service. This initiative ensures economic stability during challenging times and reflects NHPC's dedication to supporting its workforce beyond professional obligations.

### Leave Benefits

NHPC recognizes the importance of work-life balance and offers a comprehensive leave policy to support employees' personal and family needs. Employees are entitled to earned leave and half-pay leave, which accumulate annually at rates of 30 and 20 days respectively and can be encashed during service.

In addition, NHPC provides paid parental leave to ensure employees have the necessary support during significant life events. Women employees are entitled to maternity leave of up to 180 days, while commissioning mothers through surrogacy are granted 12 weeks of maternity leave. These policies have resulted in exceptional outcomes, with both male and female employees achieving a 100% return-to-work rate and a 100% retention rate after availing parental leave. This consistency across all categories reflects NHPC's supportive work environment and effective parental leave framework, ensuring that employees feel valued and motivated to continue their careers with us.

To further assist working parents, NHPC operates the Aanchal Creche Facility, providing safe and reliable childcare services that enable employees to focus on their professional responsibilities while ensuring their children are cared for in a nurturing environment. Beyond workplace benefits, NHPC also promotes community engagement through initiatives such as the "Bandhan" portal, a unique platform designed to facilitate matrimonial connections among NHPC employees and their families across diverse geographies, from remote areas to urban centers. This initiative strengthens social bonds and underscores NHPC's role in supporting the personal lives of its workforce.



Employee training on Managing change effectively



# Human Rights

NHPC is committed to respecting and advancing the fundamental human rights of all stakeholders across our operations and value chain. Our approach is guided by the Universal Declaration of Human Rights, relevant International Labour Organization conventions, and the Constitution of India. Human rights considerations are embedded in our policies, daily practices, and strategic decisions, including acquisitions, mergers, and investments. NHPC's Human Rights Policy expressly prohibits child labour and forced or compulsory labour within our facilities and supply chain and upholds equal opportunity and dignity at work without discrimination or harassment on the basis of age, gender, marital or economic status, disability, race, national or regional origin, ancestry, indigenous status, personal beliefs, religion, political affiliation, sexual orientation, or HIV/AIDS status.

Responsibility for implementing our human rights commitments is woven into management systems across business units, with particular attention to labour rights, supply chain oversight, community interactions, and security arrangements. We maintain comprehensive procedures to prevent, detect, and address misconduct. Our policy for the Prevention, Prohibition and Redressal of Sexual Harassment of Women at the Workplace complies with the Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013 and classifies sexual harassment as misconduct under the NHPC Conduct, Discipline and Appeal Rules. Internal Complaints Committees (ICCs) are established

at all locations to ensure accessible, impartial grievance handling. The ICC at the Corporate Office in Faridabad is chaired by a senior female officer and includes a representative from a non-governmental organization to strengthen independence and support for complainants.

We strive to foster a safe, respectful, and inclusive workplace. Targeted training and awareness programs reinforce our zero tolerance stance on discrimination and harassment and ensure employees understand their responsibilities and the procedures available to raise concerns. Clear protocols guide prevention, reporting, investigation, and resolution, providing timely access to remedy through established disciplinary and grievance mechanisms, including ICCs.

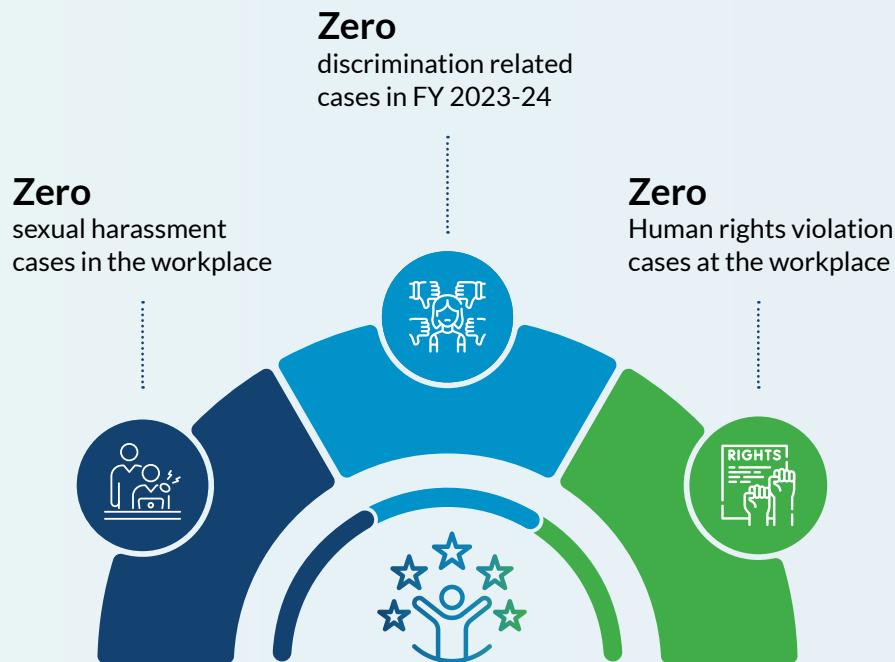
**Supply Chain, Community and Security Contexts:** Our expectations extend to suppliers and contractors, who are required to uphold prohibitions on child labour and forced or compulsory labour and to respect internationally recognized labour rights. Human rights considerations are integrated into our community engagement and security measures, with emphasis on respectful interactions, lawful conduct, and risk mitigation to prevent adverse impacts.

**Ethical Conduct and Anti-Corruption:** Integrity and transparency underpin our approach to human rights. We conduct anti corruption risk assessments and maintain controls, complemented by regular communication and training so that employees are informed, vigilant, and accountable. These systems support early identification of risks and effective mitigation across our operations.



Ms. Kiran Sethi of Delhi Police SWAT addressing the International Women's Day event at C.O., NHPC

## Commitment to a Discrimination-Free and Harassment-Free Workplace at NHPC in FY 2024-25



During the reporting period, NHPC recorded no human rights violations. There were no reported instances of child labour or forced/compulsory labour within our operations and supply chain. We confirmed zero incidents of sexual harassment and zero incidents of corruption, with no remedial actions required. This performance reflects our continued focus on robust governance, consistent policy implementation, and ongoing employee engagement.

We will continue to strengthen human rights due diligence across operations and the supply chain, enhance training and awareness, maintain accessible and impartial grievance mechanisms, and align with evolving national legislation and internationally recognized standards. Our priority is to preserve and advance respect for human rights while building trust with our stakeholders and supporting long term, responsible growth.



*POSH Act and Gender Sensitization Programme for Male Executives*



# Responsible Supply Chain

Extending the expectations set out in our Human Rights commitments, we embed responsible, transparent, and inclusive practices across our procurement and supplier relationships. In FY2024-25, we continued to advance a sustainable supply chain through policy led governance, rigorous due diligence, and strong support for domestic industry and micro and small enterprises (MSEs).

NHPC's Sustainable Procurement Policy guides all purchasing activity across the Corporate Office and Projects/Power Stations. The policy is designed to deliver efficiency, transparency, economy, fairness, integrity, and value for money, while fostering a socially responsible ecosystem. We require suppliers and contractors to uphold clear environmental, social, and governance standards, including expectations on occupational health and safety, labour and human rights, environmental stewardship, and business integrity and ethics. These expectations are aligned with our corporate codes and India's legal and regulatory framework.

## Supplier engagement and due diligence

NHPC's supply chain comprises exclusively of Tier 1 suppliers, all of whom directly supply goods and services to the Company, with no involvement of non-Tier 1 suppliers in any procurement process. For all significant procurement activities, contractors, as integral partners in the value chain, are required to provide disclosures on adherence to sustainability standards aligned with ESG parameters. Where gaps are identified, targeted support is provided—both remotely and through on-site engagements to assist suppliers in implementing corrective actions and strengthening their management systems. This approach ensures continued alignment of the supply chain with NHPC's sustainability commitments and regulatory requirements.

During FY2024-25, the total number of contracts placed for the supply of goods and services to Tier 1 suppliers was 4,842. All the suppliers directly supply goods & services to NHPC and therefore, NHPC does not have any non-tier-1 suppliers. From the aggregate, 2,382 contracts were awarded to significant Tier 1 suppliers with individual contract values exceeding ₹5.0 lakh, while 2,460 contracts were awarded to non-significant Tier 1 suppliers with individual contract values below ₹5.0 lakh.

All tenders are conducted through the Government of India's e procurement platforms the Central Public Procurement (CPP) Portal and the Government e



Chamara III Power station (Dam-Arial View), Himachal Pradesh

Marketplace (GeM). These systems enable broad vendor participation, streamlined coordination, and consistent application of government guidelines for transparent procurement. Tender evaluation is undertaken by dedicated committees following Central Vigilance Commission (CVC) guidelines, with assessment criteria that incorporate social, environmental, and governance considerations alongside technical and commercial factors. We adhere to the International Competitive Bidding (ICB) as well as Domestic Competitive Bidding (DCB) system, aligning our processes with internationally recognized practices as well as CVC and Government of India standards, to select the most qualified agencies for our hydropower projects.

Integrity and accountability are integral part of our procurement process. Under the Integrity Pact, both bidders/contractors and NHPC commit to transparency throughout the tendering process and contract execution. NHPC maintains a Memorandum of Understanding with Transparency International India to support robust implementation of the Integrity Pact in accordance with CVC guidelines. Our grievance redressal provisions, detailed in bid and tender documents, include recourse to Independent External Monitors (IEMs), ensuring that concerns can be raised and addressed impartially at any stage of the procurement lifecycle.

NHPC strictly follows applicable Government of India policies governing public procurement, including the Public Procurement (Preference to Make in India) Order, 2017; the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012; and relevant policies related to land border sharing. We also operate NHPC's preferential policy for project affected families, strengthening local inclusion around our project sites. By using GeM and CPP portals and applying preference policies consistently, we ensure fairness in bidding and provide equal opportunity for eligible suppliers, including Start Ups and new market entrants.

We prioritize indigenous products and sustained access for MSEs and Start Ups, in line with national objectives to broaden participation in public procurement. Our model emphasizes timely payments, clear specifications, and predictable procurement cycles to reduce barriers to entry. In FY2024-25, NHPC procured 56.12% of eligible goods and services from MSEs well above the 25% mandate set by the Ministry of Micro, Small and Medium Enterprises and our spend included 4.88% from SC/ST owned MSEs and 6.12% from women owned out of total Goods produced and Services rendered by MSEs.. These efforts benefited 3,250 MSEs, including 175 owned by SC/ST entrepreneurs and 494 owned by women entrepreneurs. Building on this performance, in FY2024-

25 we continued to prioritise MSE participation, with year end outcomes presented in the Performance Data Appendix of this report.

During FY 2024-25, we reinforced supplier screening and ESG integration in tender evaluation, expanded capacity building support for high risk and strategic suppliers, and maintained strong integrity controls through our Integrity Pact and IEM enabled grievance mechanisms. Looking ahead, we will further digitise supplier due diligence, deepen engagement on occupational health and safety and labour rights across our tier 1 base, and continue to align with evolving Government of India procurement directives and global good practices. Our objective remains clear: a resilient, ethical, and inclusive supply chain that creates long term value for stakeholders while supporting India's sustainable development priorities.

### Supplier Screening

# 4,842

**Total number of Tier-1 suppliers #**

# Tier 1 suppliers are direct suppliers to whom individual contracts has been awarded by NHPC.

# 2,382

**Total number of significant suppliers in Tier-1\***

\*Significant Tier 1 suppliers: direct suppliers with aggregate contracts exceeding ₹ 5.0 lakh in the reporting period.

# 49.19%

**of total spend on significant suppliers in Tier-1**

# 2,460

**Total number of significant suppliers in non-Tier-1\***

\*non-significant (below ₹ 5 lakh) Tier -1 suppliers



Parbati -II Power Station (Dam), Himachal Pradesh



# Supplier Code of Conduct

Building on our Sustainable Supply Chain commitments, NHPC's Supplier Code of Conduct sets clear, enforceable standards for all vendors and contractors engaged for Goods, Services, and Works in FY2024-25. The Code anchors responsible, sustainable, and ethical practices across our value chain, promoting environmental stewardship, protecting human rights and labour standards, and supporting social well-being and community development in line with India's regulatory framework and broader ESG expectations.

The Code is embedded in our end-to-end procurement lifecycle pre-qualification, tendering, evaluation, award, and contract management. All procurement is conducted in accordance with NHPC's procurement manual and standard tender documents and executed via Government of India e-procurement platforms (CPP and GeM) to ensure consistency, fairness, and transparency. Minimum qualification criteria address core human rights and labour protections, including the elimination of forced and child labour, compliance with occupational health and safety requirements, prevention of discrimination and harassment, respect for freedom of association and collective bargaining, adherence to labour laws and minimum wage guidelines, and integration of environmental considerations relevant to the goods or services procured.

Tender evaluations apply clearly defined terms and conditions that encompass social and environmental aspects alongside technical and commercial criteria. Integrity is reinforced through NHPC's Integrity Pact, under which both bidders/contractors and NHPC commit to transparency throughout the tendering process and contract execution. Grievance redressal provisions, including access to Independent External Monitors, provide impartial channels to raise and resolve concerns. Suppliers are required to comply with all applicable laws and regulations in the jurisdictions where they operate and to refrain from bribery, fraud, collusion, coercion, or other corrupt practices.

To support effective and consistent implementation, NHPC conducts regular trainings for employees on socio-environmental and governance parameters relevant to sustainable procurement and holds consultations and pre-bid meetings with suppliers. These forums clarify expectations under the Code, build shared understanding of requirements, and encourage adoption of good practices. Our procedures for sustainable sourcing are comprehensive and applied across categories to help ensure procurements are both sustainable and safe, with emphasis on preventing adverse environmental and social impacts across the supply base.

## ESG expectations for suppliers



### Business integrity and ethics

Zero tolerance for bribery and corruption; align with NHPC's Code of Conduct; practice fair competition; maintain accurate records; cooperate with audits, monitoring, and Integrity Pact mechanisms.



### Occupational health and safety

Comply with OHS laws; identify and control hazards; provide training, PPE, and emergency preparedness; ensure safe, healthy, and clean workplaces.



### Environmental stewardship

Comply with permits and standards; reduce impacts across emissions, energy, water, waste, and hazardous materials; improve resource efficiency, including responsible packaging and product stewardship where applicable.



### Labour and human rights

Prohibit child and forced labour; prevent discrimination and harassment; respect freedom of association and collective bargaining; ensure fair wages and working hours; provide effective worker grievance channels.

Conformance with the Supplier Code of Conduct is a condition of doing business with NHPC. We expect suppliers to cascade these requirements to sub contractors, address identified gaps promptly and demonstrate continuous improvement. Through transparent processes, capability building, and consistent enforcement, NHPC aims to maintain a responsible, resilient supply network that advances sustainable outcomes and long term value creation in FY2024-25.

# Occupational Health, Safety & Wellness

NHPC continued to operate with a strong environmental conscience and a rigorous health and safety culture, protecting people and the environment. During the investigation stage, potential environmental and social impacts are assessed and identified through Environmental Impact Assessment studies, and Environmental Management Plans are formulated and implemented to mitigate or compensate for adverse effects. Our Safety Policy and Safety Manual ([https://www.nhpcindia.com/assests/pzi\\_public/gallery/16857028460.pdf](https://www.nhpcindia.com/assests/pzi_public/gallery/16857028460.pdf)) set out the scope, applicability of laws, standard operating and operational control procedures, and roles and responsibilities for effective safety management. These requirements are implemented at all power stations and projects, supported by site-specific Safety and Disaster Management Plans and Crisis & Disaster Management Plans, and anchored by a clear target of zero hazard potential at the workplace. Compliance with

safety systems, procedures, and environmental laws is regularly monitored, and our contractors are required to meet all relevant safety acts, rules, regulations, standards, and site requirements.

NHPC maintains regulatory alignment and adheres to applicable laws and standards, including the Occupational Safety, Health and Working Conditions Code, 2020; the Factories Act, 1948; the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996; the Disaster Management Act, 2005; the Environment (Protection) Act, 1986; the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016; the National Building Code; and the relevant Central Electricity Authority regulations.



Nimmo Bagzo Power Station (Dam), UT of Ladakh

## Vikasit Bharat ka Mantra, 'Bharat ho Nashe se Swatantra'

In alignment with the national campaign "Vikasit Bharat ka Mantra, Bharat ho Nashe se Swatantra," NHPC organized an oath-taking programme against drugs at its Corporate Headquarters, Faridabad on 12.08.2024. The pledge was administered by Chairman and Managing Director Shri Raj Kumar Chaudhary, in the presence of Director (Personnel) Shri Uttam Lal, Chief Vigilance Officer Shri Santosh Kumar, department heads and all officers, reaffirming NHPC's commitment to a drug-free society and a safe, healthy workplace.

## Safety Governance Structure at NHPC

Safety governance operates at corporate and site levels. At the corporate level, the Safety Division sets policies, targets, and guidelines and provides functional oversight across the portfolio. At each power station and project, administrative responsibility lies with the Head of Project, who ensures on the ground implementation. Safety Committees are established at all sites with equal representation of management and workers, providing a platform for participation, resolution of safety issues, and follow up on audit recommendations. Committee meetings are held monthly at construction projects and quarterly at operating power stations, with decisions taken collectively under the chairperson's leadership.

## NHPC's Commitment to Safety and Environmental Excellence

At NHPC, safety and environmental stewardship are integral to our operations. We adopt a proactive approach to risk management, ensuring that our projects and power stations operate with the highest standards of safety, quality, and sustainability.



### Strengthening Safety Culture

We conduct comprehensive internal and external safety audits annually across all power stations and projects to identify and mitigate potential hazards. Regular mock drills, training programs, and awareness campaigns are organized for employees, contractors, and local communities to enhance preparedness for emergencies and validate the effectiveness of safety controls.



### Advanced Early Warning Systems

To safeguard lives and assets, Early Warning Systems have been installed or are under implementation at all

NHPC projects. These systems enable real-time alerts for upstream river conditions. Additionally, hooters and caution boards are strategically placed at dams and powerhouses to inform and alert downstream communities before water releases, reinforcing public safety.



### Global Standards and Certifications

NHPC's commitment to quality and safety is reflected in its adherence to international standards. Our power stations are certified under:



**ISO 9001:2015**

Quality Management



**ISO 14001:2015**

Environmental Management



**ISO 45001:2018**

Occupational Health & Safety Management

Regular compliance reviews ensure that these certifications are maintained, driving continuous improvement in our systems and processes.



## Zero Harm Philosophy

We strive for “Zero Injuries, Zero Losses, and Environmental Protection” across all operations. Contractor compliance with safety regulations, site-specific requirements, and statutory norms is ensured through rigorous pre-qualification checks, induction programs, supervision, and periodic audits.

### Training, competency, and standards

NHPC's Safety Manual outlines statutory requirements, defines roles and responsibilities, and embeds advanced safety standards across locations. It is periodically updated to reflect Central Electricity Authority regulations and good practice for constructing, operating, and maintaining electrical plants and lines. Employees receive regular training on operating safety protocols, disaster preparedness, fire safety management, chemical safety, first aid, proper use of personal protective equipment, and firefighting equipment. Engagement tools such as toolbox talks and safety observations reinforce safe behaviours. All contract workers receive a minimum of 10 hours of safety training covering general safety awareness, first aid, PPE use, firefighting equipment, handling catastrophic events, and site specific hazards.

## NHPC's Safety and Risk Management Framework

At NHPC, safety is not just a compliance requirement it is a core value embedded in every stage of our operations. Our comprehensive framework ensures proactive risk identification, robust incident management, and effective emergency preparedness to safeguard people, assets, and the environment.



### Proactive Hazard and Risk Management

We implement a structured safety management system that systematically identifies, assesses, and mitigates hazards across all activities. Each project stage is supported by Job Safety Analyses (JSA) and Risk & Method Assessments, ensuring operational integrity. Our Hazard Communication Program maintains an updated inventory of hazardous materials and provides Material Safety Data Sheets (MSDS) in local languages to enhance awareness and compliance.



### Robust Incident Management

NHPC follows a well-defined Incident Management System guided by our Safety Manual. Every accident or dangerous occurrence is reported, thoroughly investigated, and analyzed to determine root causes, quantify losses, and implement corrective and preventive measures to avoid recurrence.



### Comprehensive Emergency Preparedness

Every NHPC power station operates under a multi-tiered Emergency Management System, which includes:

- On-site Emergency Plan: Focused on preparedness for events like fires and flooding, reinforced through regular mock drills.
- Off-site Emergency Plan: Designed for coordinated responses to large-scale incidents such as explosions or toxic releases, validated through scheduled drills.
- Crisis & Disaster Management Plan (C&DMP): Addresses natural and man-made disasters through early warning systems and regular drills. A 24/7 Master Control Room, supported by the e-Aabhas platform and automatic water level sensors, ensures real-time monitoring and rapid response capabilities.

## NHPC Safety Performance: Proactive Hazard Mitigation

NHPC applies a preventive approach to identify and mitigate potential hazards before they escalate into incidents. External and internal safety audits are conducted systematically across sites, and Hazard Identification and Risk Assessment (HIRA) processes are applied to all critical activities to surface potential threats and define controls. Findings from audits and HIRA are translated into corrective and preventive actions, tracked to closure, and reinforced through mock drills and refresher trainings. This proactive model strengthens operational resilience and supports our zero harm ambition.

In FY2024-25, NHPC maintained disciplined governance, robust operational controls, and ongoing capability building to safeguard people and the environment. We continued to refine incident investigation and learning, strengthen emergency preparedness, enhance early warning and public alert mechanisms, and deepen contractor oversight. Summary performance indicators and year over year trends are presented in the Performance Data Appendix of this report.



Employees Development Programme (Prerna - Lecture Series)

## Details regarding Contract Workers safety incidents

Safety Incident/Number	Measure	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Lost Time Injury Frequency Rate (LTIFR) (per one million-person hours worked)	Rate	0.21	0.63	0	0
	Number	7	7	3	0
Fatalities as a result of work-related injury (per one million-person hours worked)	Rate	0.27	0.21	0.16	0.00
	Number			3	
High-consequence work-related injuries (excluding fatalities)	Number	2	1	1	0
	Rate	0.08	0	0.05	0.00
Recordable work-related injuries	Number	3	25	2	0
	Rate	0.12	0.73	0.11	0.00
Working Hours	Million	25.93	34.08	18.51	17.40

## Details regarding Employees safety incidents

Safety Incident/Number	Measure	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Lost Time Injury Frequency Rate (LTIFR) (per one million-person hours worked)	Rate	0	0.09	0	0
	Number	0	2	0	0
Fatalities as a result of work-related injury (per one million-person hours worked)	Rate	0.00	0.26	0.00	0.00
High-consequence work-related injuries(excluding fatalities)	Number	0	0	0	0
	Rate	0.00	0.00	0.00	0.00
Recordable work-related injuries	Number	0	2	1	0
	Rate	0.00	0.26	0.12	0.00
Working Hours	Million	8.07	7.69	8.33	8.01

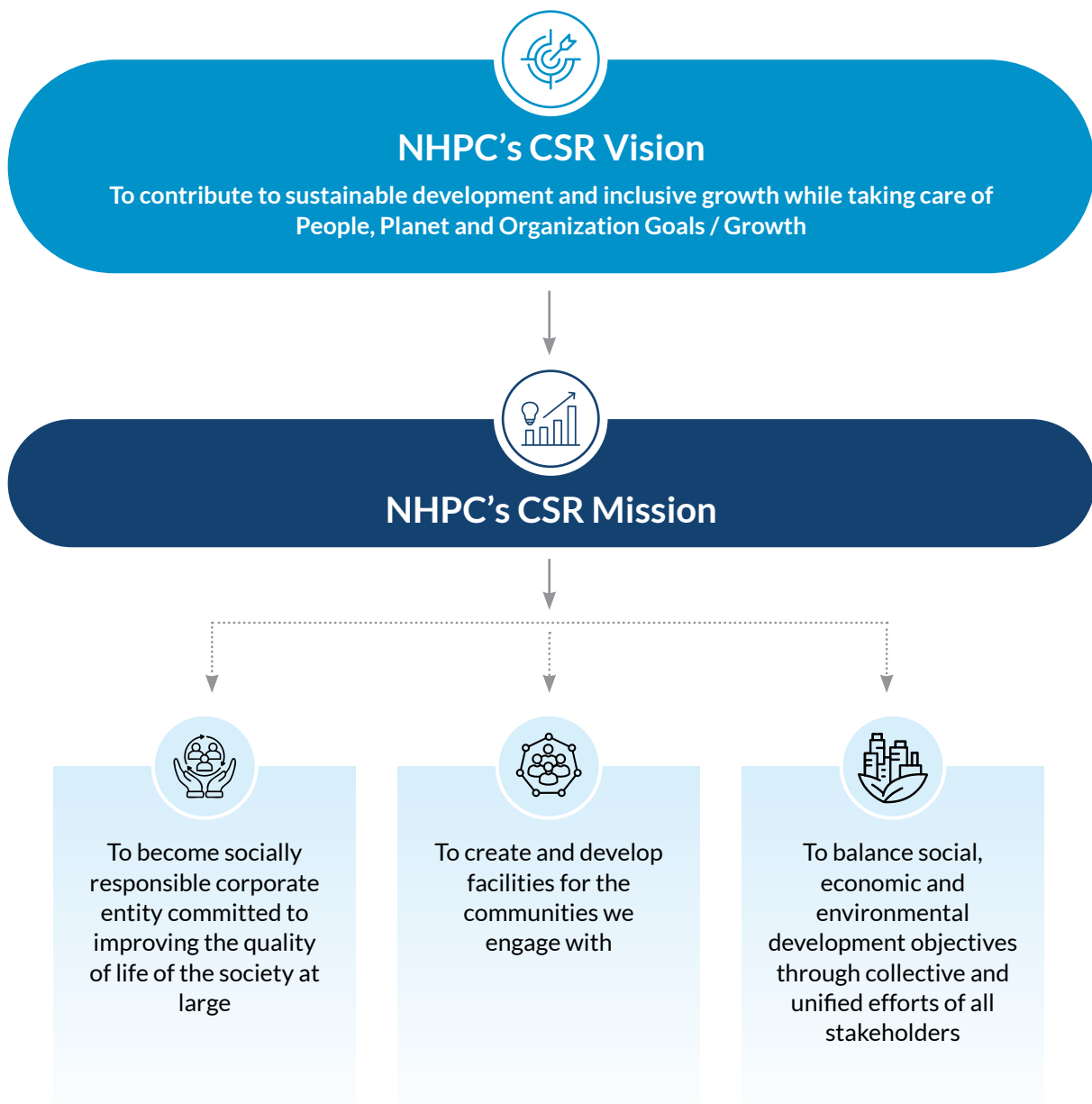


Netaji Subhash Chandra Bose Jayanti at Corporate Office, Faridabad

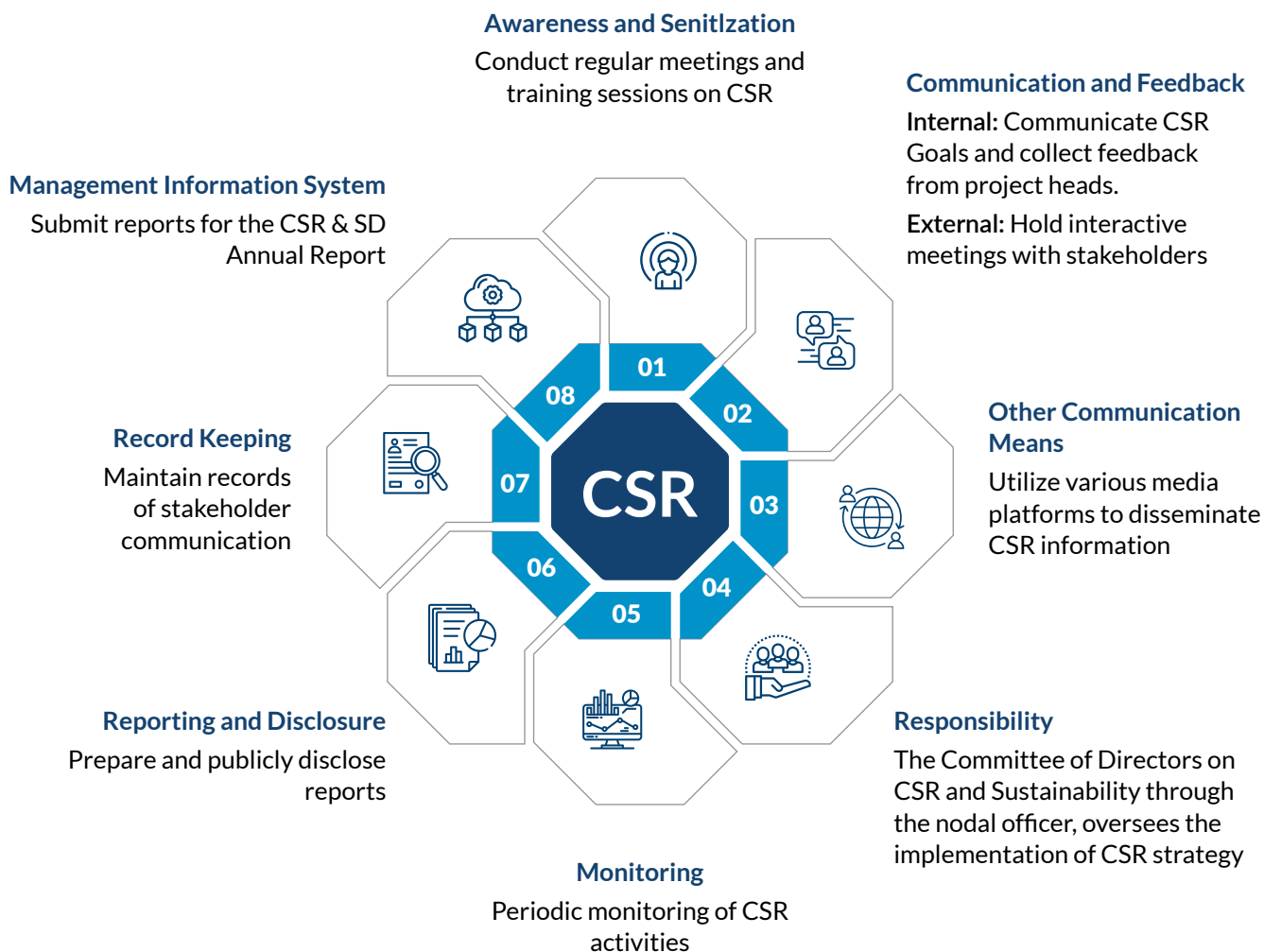
# Community Engagement & CSR Impact

NHPC Limited, India's leading hydropower company with growing portfolios in solar and wind, embeds Corporate Social Responsibility (CSR) into its core business strategy. Guided by the principle of creating shared value, NHPC's CSR responds to social, economic, and environmental priorities in the regions where it operates. The company's initiatives span healthcare, education, sanitation,

rural infrastructure, skill and livelihood development, environmental sustainability, women's empowerment, and other areas covered under Schedule VII of the Companies Act, 2013. The overarching aim is to enable inclusive growth, strengthen local resilience around project areas / operational sites, support marginalized groups, and contribute to national development priorities.



## NHPC's Strategic Approach to CSR: Engaging Stakeholders for Sustainable Impact



## CSR Policy and Governance

NHPC's CSR & Sustainability Policy is aligned with Section 135 of the Companies Act, 2013, the Companies (CSR Policy) Rules, and subsequent amendments issued by the Ministry of Corporate Affairs, Government of India. NHPC also aims to follow guidelines on CSR issued by the Department of Public Enterprises (DPE). Oversight rests with the Board through the Committee of Directors on CSR & Sustainability, supported by an institutional framework for proposal appraisal, implementation, monitoring, and

evaluation. NHPC remains fully compliant with statutory provisions and adopts any changes in applicable laws or government guidelines as they come into force.

The Committee of Directors on CSR & Sustainability formulates and recommends the CSR & Sustainability Policy and Annual Action Plan; monitors the CSR Policy and implementation mechanisms; approves the annual CSR activities report and ensures compliance with CSR requirements as amended from time to time.



## Strategic highlights of the CSR Approach

- Geographic focus: At least 80% of CSR programmes are undertaken in and around NHPC's projects, power stations, and offices preferably within a 25 km radius and within the host district to directly benefit local communities.
- Equity and inclusion: Programme selection prioritizes poor, backward, and underserved communities and advances environmental quality, ensuring resources reach those who need them most.
- Collaboration for scale: NHPC is also open to partnering with other CPSEs to plan, implement, and monitor large-scale projects, leveraging combined resources and expertise for greater socio-economic and environmental impact.
- Compliance and adaptability: Statutory updates or government directives are deemed adopted as applicable, ensuring continuous alignment with regulatory expectations.

## Geographic Reach and Beneficiaries

- NHPC's CSR footprint spans diverse regions across the country, encompassing areas in proximity to its operational units and beyond. In addition, NHPC extends its developmental initiatives to three Aspirational Districts — Baramulla (UT of J&K), Chamba (Himachal Pradesh), and West Sikkim (now known as Gyalshing), reflecting its commitment to inclusive and balanced regional growth.

## Selection and Prioritization of CSR Activities

- Stakeholder-led design: CSR priorities are identified in consultation with stakeholders, including district administration in NHPC's areas of operation.
- Rigorous appraisal: CSR proposals originate from NHPC locations with Detailed Project Reports and requisite clearances. An internal Committee conducts the first-level screening for alignment with Schedule VII and long-term sustainability. A senior, interdisciplinary committee then evaluates and recommends proposals to the Committee of Directors on CSR & Sustainability through the CSR Nodal Officer, prior to Board approval.

## Implementation, Monitoring, and Evaluation

- Institutional arrangements: Defined roles and processes guide implementation and monitoring across NHPC locations and the Corporate Office.
- Ongoing oversight: Unit Heads submit monthly progress reports to the CSR Nodal Officer at Corporate Office. Documentation, including photographs and videos, is maintained to evidence on-ground progress.
- Board-level review: The Committee of Directors on CSR & Sustainability reviews implementation progress at regular intervals, ensuring strategic alignment and course correction where needed.
- Impact assessments: Independent impact assessments are undertaken for CSR projects with an outlay of one crore rupees or more, at least one year after completion, to measure outcomes and strengthen future programme design.

## Partnerships and leveraging synergies

- NHPC collaborates with government agencies, local administrations, and other implementing agencies to co-create impactful programmes, optimize resources, and replicate proven models. Such partnerships enhance reach, improve cost-effectiveness, and help embed projects within local development plans for sustained impact.

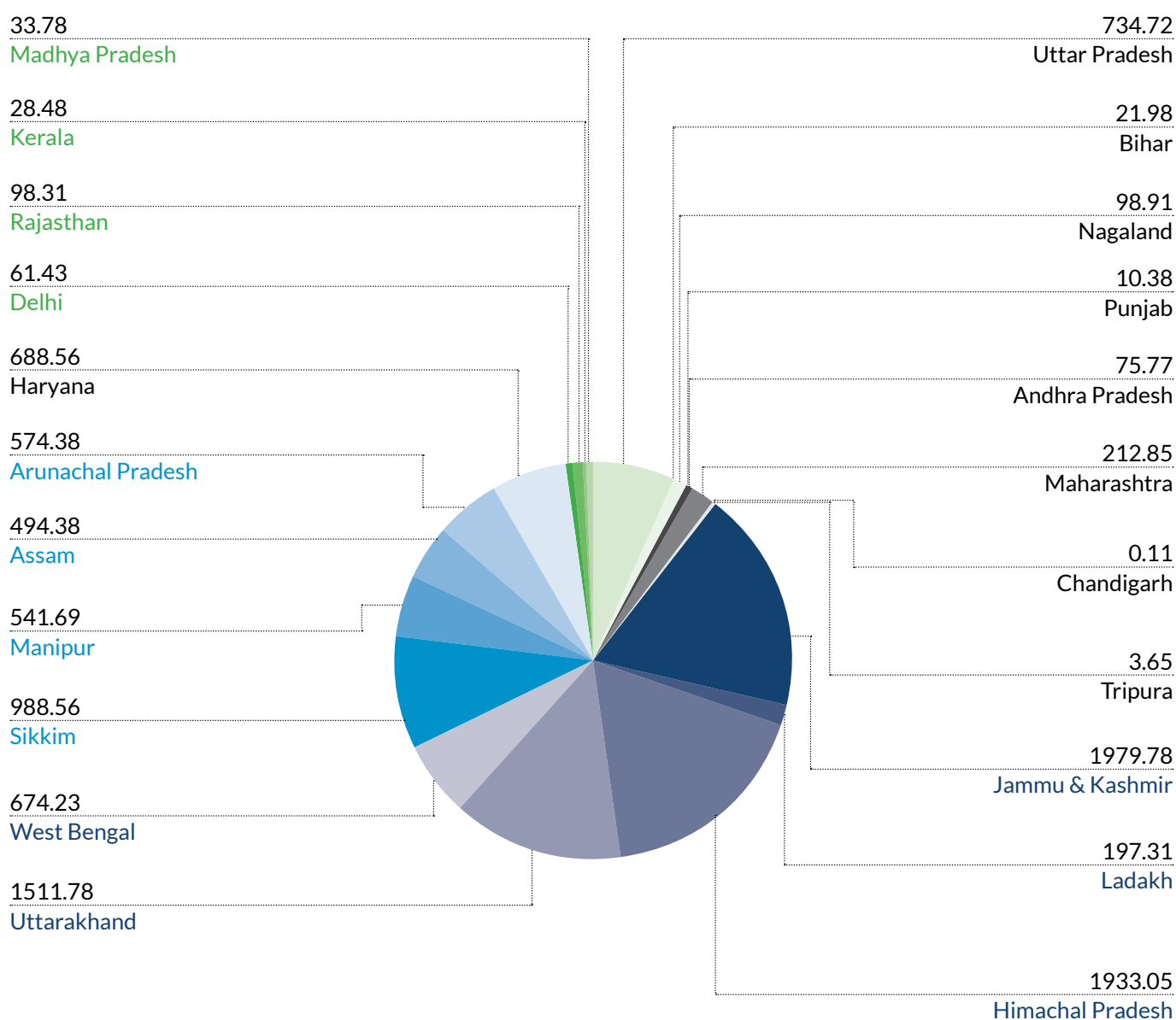


*Sikhsharath 7.0 under NHPC CSR for empowering women and children communities in seven Border Villages, along the LOC in - UT of Ladakh*

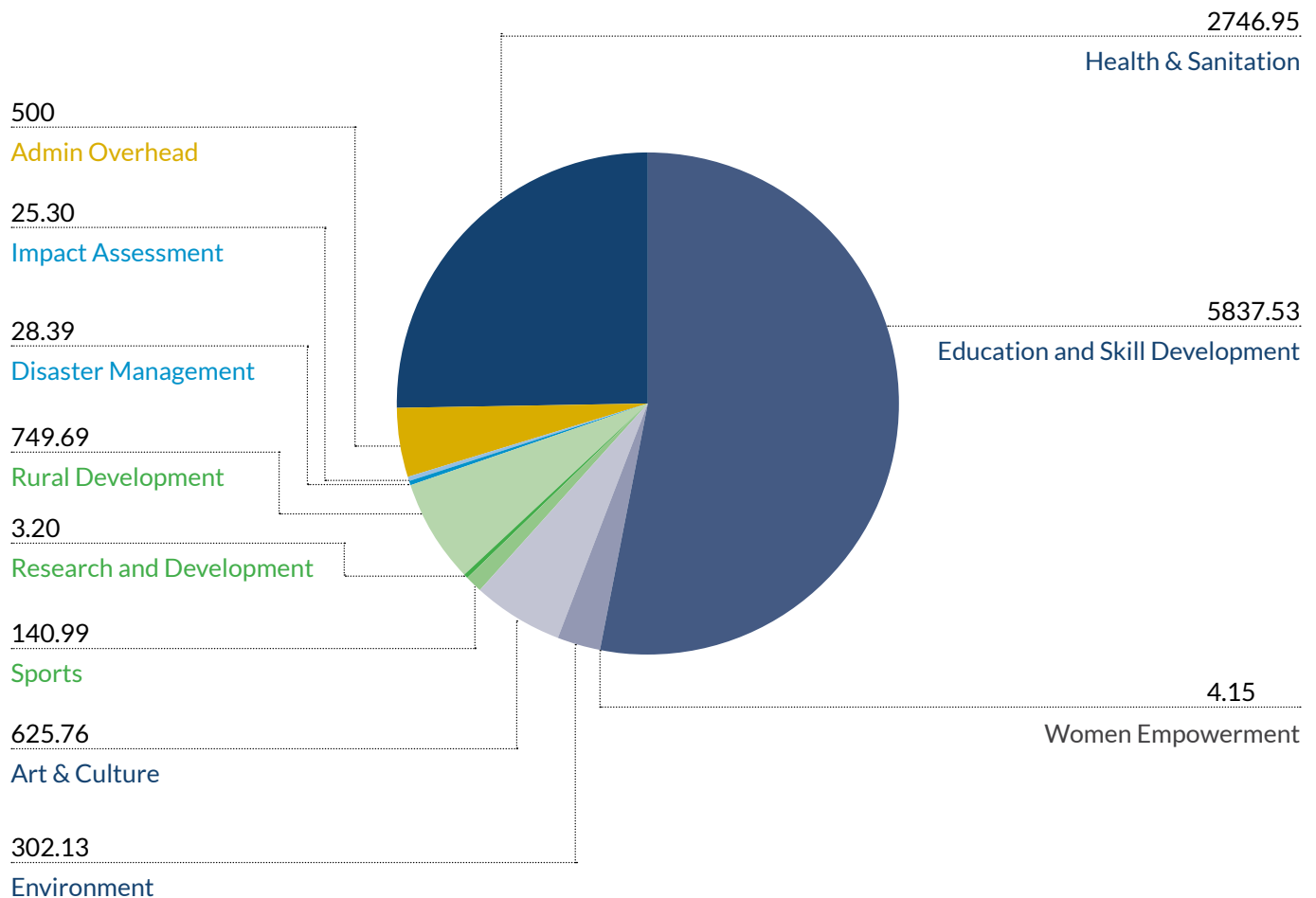
## Expenditure on CSR initiatives incurred by NHPC over last 5 yearss

FinancialYear	Mandatory Allocation (2% of average net profits of last 3 financial years) [in Cr.]	Expenditure (in Cr.)
2020-21	59.43	79.63
2021-22	65.45	105.29
2022-23	72.14	127.31
2023-24	80.04	85.73
2024-25	82.30	109.64

## State-wise CSR expenditure during FY 2024-25 (In Lakh)



## Sectorwise CSR Expenditure During FY 2024-25 (in Lakh)



# Empowering Communities: NHPC CSR Impact Stories

## Promoting Education

### Support to Kendriya Vidyalayas/Other school to provide quality education to children in rural communities

NHPC has spent ₹41.58 Crore on 13 nos. Kendriya Vidyalayas/ other school during FY 2024-25 for providing quality education to rural community children residing in the vicinity of its Projects/ Power Stations/ Units. During FY 2024-25, the total no. of beneficiaries was 6037. Since FY 2019-20 to FY 2024-25, NHPC has supported 13 schools with a total expenditure of ₹212.78 Crore.



Support to Kendriya Vidyalayas

### Construction of an Engineering College at Takdah, Darjeeling, West Bengal

Estimated Project cost is ₹40.00 Crore. ₹30.00 Crore has been spent so far; ₹4.00 Crore was spent in FY 2024-25. Construction of academic block was completed and construction of residential blocks is underway.



Engineering College at Takdah

### Construction of 30 nos. Govt. Primary Schools in District Chamba, Himachal Pradesh

NHPC Chamara-II Power Station in collaboration with District Administration, Chamba, Himachal Pradesh is implementing this CSR initiative. ₹258.60 Lakh has so far been spent from FY 2022-23 to FY 2024-25. In FY 2024-25, ₹118.88 Lakh was spent on this initiative. Estimated Project Cost is ₹4.65 Crore. Activity is under progress.



Construction of Govt. Primary Schools



### Construction of 22 nos. Govt. Middle Schools in District Chamba, Himachal Pradesh

NHPC Chamara-II Power Station in collaboration with District Administration, Chamba, Himachal Pradesh is implementing this CSR initiative. In FY 2024-25, ₹108.02 Lakh was spent on this initiative. ₹286.45 Lakh has been spent on this initiative from FY 2022-23 to FY 2024-25. Estimated Project Cost is ₹4.40 Crore. Activity is under progress.



Kyan Based Smart classrooms

### Construction of Boys and Girls Hostel for Govt. Residential School Ranli, Dibang Valley, Arunachal Pradesh

The expenditure incurred amounts to ₹58.85 Lakh. ₹44.14 Lakh was spent in FY 2023-24 & ₹14.71 Lakh was spent in FY 2024-25 on this activity. The activity was completed in FY 2024-25. No. of expected beneficiaries is 65.



Construction of Boys and Girls Hostel

### Setting up of Kyan Based Smart classrooms in 50 Govt. Schools in Uttarakhand

An MoU was signed on 27.02.2024 for implementation of this CSR initiative. The scope of work involves installation of Integrated Teaching Device (K-YAN), digital e-learning content with Multimedia content and English learning solution in 50 Government Schools of Champawat and Pithoragarh Districts of Uttarakhand. The K-YAN projector has been installed in all 50 Schools and the training of teachers was conducted on 20.12.2024 & 21.12.2024 at Champawat & Pithoragarh respectively. The expenditure incurred in FY 2024-25 amounts to ₹60.00 lakh. The activity has been completed in FY 2024-25.

### Construction of Additional Class Room Building at Mingmang Kamala Miri High School, District Dhemaji, Assam

The expenditure incurred amounts to ₹44.85 Lakh. The activity implemented by NHPC Subansiri Lower Project was completed in FY 2024-25.



Construction of Additional Class Room Building

### Strengthening of infrastructure of Government Senior Secondary School, Lakkarpur, Faridabad (Haryana)

A MoU was signed on 23.10.2024 for implementation of CSR initiative to strengthen the infrastructure of Senior Secondary School, Lakkarpur, Faridabad (Haryana). The activity includes strengthening of classrooms by providing tile flooring, corridors, painting of walls, repair of windows and doors etc. Presently around 1200 students are studying in this school. ₹36.91 lakh was spent on this activity in FY 2024-25. The above activity has been completed.

## Promoting Healthcare Including Preventive Healthcare, Sanitation, Making Available Safe Drinking Water

### Free Healthcare to locals through NHPC Dispensaries:

NHPC has spent ₹7.24 Crore through Project dispensaries functional at 24 nos. NHPC's Projects/ Power Stations/ Units situated mostly in remote areas during FY 2024-25 in providing free Healthcare facilities to the local population with the objective to promote healthcare including preventive healthcare and reduce the incidence of diseases. During FY 2024-25, the total no. of beneficiaries was 86053. ₹34.04 crores was spent from FY 2019-20 onwards up to FY 2024-25.



Free Healthcare to locals

### Providing medical care and nutritional support to differently abled persons residing at Cheshire Home India, Delhi Unit

An MoU was signed with Cheshire Home India, Delhi Unit on 17.01.2024 for providing medical care and nutritional support to the differently abled persons. Under this initiative, provisions for providing services of Doctor & physiotherapist assistance were made to make life easy for them. About 60 differently-abled persons are getting facilitated with this scheme. ₹11.59 Lakh was spent in FY 2023-24 & ₹55.43 Lakh was spent in FY 2024-25 on this activity. Activity was completed in FY 2024-25.



Medical care and nutritional support to differently abled

### HOPE - Therapy to Every Last Mile Child: Running of Mobile Therapy Clinic for Children with disabilities in Chamba (Himachal Pradesh) for 3 years

Project Cost ₹97.31 Lakh, Activity is underway. ₹31.12 Lakh was spent on this CSR initiative in FY 2024-25.



Mobile Therapy Clinic for Children with disabilities

### Mobile Medical Unit for Pithoragarh, Uttarakhand

The project involves purchasing a Mobile Medical Unit (MMU) and operating it for the next one year to provide medical services to the local communities in the remote villages of District Pithoragarh that currently lack basic healthcare services. Project Cost is ₹81.54 Lakh and ₹36.40 Lakh was spent on this CSR initiative in FY 2024-25. Work is underway.



Mobile Medical Unit



### Distribution of Aids and Assistive devices to around 1000 Divyangjans through ALIMCO in the North & North Eastern states

An MoU was signed between NHPC Limited and M/s ALIMCO on 01.08.2023 for distribution of Aids and Assistive Devices to about 1000 Divyangjans in the North & North Eastern States. Places, where Assessment & Distribution Camps have been organized for providing Aids and Assistive Devices to Divyangjans free of cost, include Champawat (Uttarakhand), Kishtwar, Baramulla & Udhampur, (UT of J&K) Lower Subansiri, Dibang & Siang, (Arunachal Pradesh), Jaisalmer (Rajasthan) and District Chamba (Himachal Pradesh). The distribution camp at Pithoragarh (Uttarakhand) is to be organized. ₹125.20 Lakh has been spent so far on this CSR initiative. ₹35.25 Lakh was spent in FY 2023-24 & ₹89.95 Lakh was spent in FY 2024-25, on this initiative.



Aids and Assistive device distribution

### Sikhsharath 7.0: CSR Program aimed at empowering children and communities in seven border villages along the LOC in UT of Ladakh.

An MoU has been signed on 09.08.2024 for implementation of this CSR initiative. The scope of work involves undertaking the activities such as up-gradation of Health & Hygiene, up-gradation of educational facilities & promotion of digital education, empowering women & self Help Groups, etc. in the seven border villages along the Line of Control (LOC) in Ladakh, namely Turtuk, Tyakshi, Thang-Cathan, Bogdang, Chalunkha, Dhotang, and Thang. The estimated project cost is ₹91.55 Lakh. The activity is underway. ₹64.08 Lakh was spent on this initiative in FY 2024-25.



Empowering children and communities

### CSR Support for Deepstambh Foundation's 'Manobal' residential training centre for students with disabilities, orphans, rural and tribal youth at Jalgaon, Maharashtra

An MoU was signed on 08.08.2024 to provide support to the 'Manobal' residential training center, Jalgaon, Maharashtra for a period of three years. This CSR initiative, with a financial involvement of ₹530.51 lakh, will support 100 students, including individuals with disabilities, orphans, and youth from rural and tribal areas. ₹82.11 Lakh was spent in FY 2024-25 for this CSR initiative. The activity is under progress.



Support for students with disabilities, orphans, rural and tribal youth at Manobal residential training centre in Jalgaon, Maharashtra

### Construction of OPD Complex in Sub-District Hospital, Bani, Kathua, UT of J&K

The activity is underway. ₹32.45 Lakh was spent on this CSR initiative in FY 2024-25.



Construction of OPD Complex

### Equipping Sri Sathya Sai Sanjeevani Hospital, Palwal, with critical medical equipment

MoU was signed on 11-10-2024. The scope included Procurement of Echo Machine (Philips Affiniti 70G Ultrasound System) for the hospital. The expenditure incurred amounts to ₹71.50 Lakh. The activity has been completed in FY 2024-25.



Echo Machine for Hospital

### Setting up an eye care unit, repairing and remodelling of the Eye OT, Construction of Ramp with Canopy at Ramakrishna Mission Medical Centre, Jammu

MoU was signed on 17-10-2024. Project cost is ₹76.74 Lakh. ₹66.74 Lakh was spent in FY 2024-25. No. of expected beneficiaries is 1000.



Eye care unit at medical center, Jammu

### Providing 02 nos Advanced Life Support Ambulance (Type-D) to Tadak Dolum District Hospital, Daporijo, Upper Subansiri, Arunachal Pradesh.

The expenditure incurred amounts to ₹54.53 Lakh. The activity has been completed in FY 2024-25.



Advanced Life Support Ambulance (Type D)

### Arrangement of Matrushakti Baby Feeding Pod at 3 different locations in Sikkim

₹28.80 Lakh was spent in FY 2023-24 & ₹7.20 Lakh was spent in FY 2024-25 on this activity. Activity was completed in FY 2024-25 by NHPC's Teesta-V Power Station.



Matrushakti Baby Feeding Pod



### Empowering Women's Health: NHPC's CSR Initiative for Awareness, Distribution of 'Saukhyam Reusable Pads,' in 20 Schools/ Colleges across Pithoragarh and Champawat Districts, Uttarakhand

An MoU has been signed on 21.08.2024 for implementation of this CSR initiative. The project involves distribution of reusable pad sets to 2000 girls from about 10 schools and colleges in both Champawat & Pithoragarh District in Uttarakhand. The activity is under progress. ₹17.50 Lakh was spent in FY 2024-25. Project cost is ₹35.00 Lakh.



### Construction of 7 nos public toilets, named 'Sanitary Haven,' in various public places in Auraiya District, Uttar Pradesh

An MoU was signed on 26.02.2024 for implementation of this CSR initiative. The scope of work included the construction of 7 nos. of public toilet facility at various locations in District Auraiya, Uttar Pradesh. The expenditure incurred amounts to ₹60.00 Lakh. The activity has been completed in FY 2024-25.



Construction of public toilets

### Installation of 10 Nos RO Water System in District Basti of Uttar Pradesh

An MoU was signed on 20.02.2024 for implementation of this CSR initiative. The Scope of work included Design, Supply, Erection, Installation, Testing and Commissioning of 10 nos Reverse Osmosis System complete with fully automatic pre-treatment, chilling plant and post treatment for conditioning RO permeate to produce ideal quality treated water for domestic/ drinking and utility including chilling plant, water vending/ ATM machine with shed and floor complete in all respect at various places in Basti, Uttar Pradesh. The expenditure incurred amounts to ₹83.87 Lakh. The activity has been completed in FY 2024-25.



Installation of RO Water System

### Installation of 15 Nos RO Water Plant 'Swachh Jal Dhara' at schools in District Gorakhpur of Uttar Pradesh

An MoU was signed on 26.02.2024 for implementation of this CSR initiative. The Scope of Work included Procurement and Installation of 15nos of 100 LPH Reverse Osmosis Plant with Alkaline cartridge at Different Schools. This activity has been completed in FY 2024-25. The expenditure incurred amounts to ₹74.66 Lakh. No. of expected beneficiaries is 15000.



Installation of RO Water System

## Skill Development and Livelihood Enhancement

### Vocational training courses of cutting & tailoring, Beauty culture and certificate in computer applications to rural youth in Distt. Chamba, H.P. for three years

MoU was signed on 27.07.2023 for imparting vocational training courses. Activity is under progress. ₹25.07 Lakh has been spent on this initiative so far. ₹15.57 Lakh was spent in FY 2024-25. A total of 360 youths is to be provided vocational training in 3 years.



*Vocational training courses of cutting & tailoring*

### Empowering Women Through Skill Development in Remote Villages

Imparting Skill Development to Unemployed Female Youth residing in remote village Draman adjoining NHPC Sewa-II Project, District Kathua, UT of J&K. i.e Sewing machine, training, mobilization cost etc. ₹27.52 Lakh was spent on this initiative in FY 2024-25. No. of expected beneficiaries is 200.



*Skill Development in Remote Village*

### Engagement of Interns under PM Internship Scheme

In FY 2024-25, ₹1.06 Lakh was spent towards this initiative.



*Engagement of Interns under PM Internship Scheme*

## Rural Development and Community Infrastructure

### Construction of Balika Ashram at Chilli, Tissa, District Chamba, Himachal Pradesh

₹2.89 crore was spent in FY 2023-24 and ₹1.25 crore in FY 2024-25. The activity was completed in FY 2024-25. A total of ₹4.14 crore has been spent by NHPC Baira Siul Power Station on this CSR initiative. The number of expected beneficiaries of this initiative is 50.



*Construction of Balika Ashram*



### Construction of Community Hall at Pounsali Village, District Reasi, UT of J&K

Activity has been completed in FY 2024-25. ₹19.91 Lakh was spent in FY 2023-24 and ₹12.83 Lakh in FY 2024-25. ₹32.74 Lakh was spent on this initiative by NHPC's Salal Power Station. Number of expected beneficiaries is 1300.



Construction of Community Hall

### Construction of 03 nos Community Halls in 3 villages of Krishna District, Andhra Pradesh.

Activity has been completed in FY 2024-25. ₹59.81 Lakh was spent in FY 2023-24 and ₹75.77 Lakh in FY 2024-25. ₹135.58 Lakh was spent on this initiative.



Construction of Community Hall

### Construction of Civic Amenity Building at Badrinath Dham, Uttarakhand

(Project cost: ₹18.58 Crore)- An MoU was signed on 18.10.2021 for the construction of a Civic Amenity Building at Badrinath Dham. The activity is under progress. ₹16.39 Crore has been spent on this initiative so far. ₹4.48 Crore was spent in FY 2022-23, ₹5.65 Crore was spent in FY 2023-24 and ₹6.26 Crore was spent in FY 2024-25, on this CSR initiative.



Construction of Civic Amenity Building

## Environment

### Desilting of earthen bunds, deepening and widening of streams in Parkandi Village, Taluka - Maan, District Satara, and in Gondune Village & Borgaon (Hiridpada) Village, both in Taluka - Surgana, District Nashik, Maharashtra

MoU was signed on 19.08.2024 for implementation of this CSR initiative. The project involves desilting of earthen dams, deepening and widening of streams and implementing measures to ensure a sustainable water supply and promote environmental protection. The total sanctioned cost on this activity is ₹93.00 lakhs. Work is underway. ₹37.20 Lakh was spent during FY 2024-25.



Deepening and widening of streams

### Ecological Restoration and Conservation of Sale Lake in Sale Village, Raigad, Maharashtra Using JalVed™ Ayurvedic Extract.

MoU was signed on 10.01.2025 for implementation of above CSR initiative with project cost of ₹99.87 lakh. This activity includes ecological restoration and conservation of Sale Lake in Sale Village, Raigad, Maharashtra Using JalVed™ Ayurvedic Extract. ₹49.93 lakh was spent in FY 2024-25. The activity is in progress.

### Modernization of Horticulture Nurseries at Khawaja Bagh, Baramulla and Baghe Sundri Sopore, District Baramulla J&K

The expenditure incurred on this initiative from FY 2020-21 to FY 2024-25 amounts to ₹142.75 Lakh. ₹21.25 Lakh was spent on this initiative in FY 2024-25.



Modernization of Horticulture Nurseries

### Installation of Grid Connected Roof Top Solar Plant in various Government Schools in District Kullu, H.P.

As part of its CSR initiative, NHPC's Parbati-II Project installed grid-connected rooftop solar plants in 13 government senior secondary schools in the Kullu district of Himachal Pradesh. An amount of ₹25.64 lakh was spent in FY 2023-24, and ₹7.81 lakh was spent in FY 2024-25. The work has been completed. With the completion of this project, both the local schools and the students studying there will benefit. The number of expected beneficiaries is 3,692. The total expenditure incurred on this activity is ₹33.45 Lakh.



Installation of Grid Connected Roof Top Solar Plant

### Illuminating Pathways through Solar Street Lights in rural areas of Jodhpur and Jaisalmer Districts of Rajasthan

MoU was signed on 13.03.2024. Activity was completed in FY 2024-25. ₹41.46 lakh was spent in FY 2024-25. Number of expected beneficiaries is 950.



Illuminating Pathways through Solar Street Lights

## Women Empowerment

### Saksham Livelihood & Skill Development Programmes for unemployed poor adolescent girls and women in Reasi District, UT of J&K

MoU was signed on 08-09-2023. The no. of beneficiaries is 120. ₹2.00 lakh was spent in F.Y. 2023-24 and ₹1.80 lakh was spent in F.Y. 2024-25. Total 120 no. girls/ women were trained in cutting and tailoring.



Saksham Livelihood & Skill Development Programmes

## Training to Promote Sports

### Providing regular sports training to Persons with Intellectual and Development Disability (PwIDD)

As part of this initiative, NHPC is providing a platform for Special Athletes to continuously practice and enhance their sporting skills, thereby strengthening their chances of participating at local, district, state, national, or international levels. NHPC is supporting 20 centers across various locations — Himachal Pradesh (9), Assam (6), UT of Jammu & Kashmir (2), UT of Ladakh (1), Arunachal Pradesh (1), and Tripura (1) — to provide training to persons with intellectual and developmental disabilities through qualified coaches in collaboration with Special Olympics Bharat. This initiative is benefiting approx. 762 individuals. The training is currently ongoing. NHPC has incurred an expenditure of ₹30.00 lakh in FY 2022-23, ₹64.32 lakh in FY 2023-24, and ₹86.40 lakh in FY 2024-25. So far, a total of ₹180.72 lakh has been spent on this initiative.



Sports training to Persons with Intellectual and Development Disability (PwIDD)



## Recognitions

NHPC was commended for its exemplary contribution to the education sector through the successful implementation of KYAN-based smart classrooms in 50 government schools across Champawat and Pithoragarh districts of Uttarakhand. This achievement was recognized at an award ceremony held by the State Council of Educational Research and Training, Uttarakhand, in Dehradun in July 2024.



NHPC Limited also received a Token of Appreciation for its best practices in adopting CSR projects in difficult terrain (Northeast India) at the 6th Conference on Empowering Persons with Disabilities through Accessible & Assistive Technology - 'Innovation and Sustainable Solutions for Equal Opportunities,' organized by ASSOCHAM in July 2024 in New Delhi.



*Token of Appreciation for its best practices in adopting CSR projects*

# Glossary of Abbreviation

AIMA	All India Management Association
ALIMCO	Artificial Limbs Manufacturing Corporation of India
ASCI	Administrative Staff College of India
ASSOCHAM	Associated Chambers of Commerce and Industry of India
AWLR	Automatic Water Level Recorder
BCP	Business Continuity Plan
BEE	Bureau of Energy Efficiency
BEML	Bharat Earth Movers Limited (BEML Limited)
BIS	Bureau of Indian Standards
BLDC	Brushless Direct Current
BMP	Biodiversity Management Plan
BMS	Building Management System
BoD	Board of Directors
BRSR	Business Responsibility and Sustainability Report
BSE	Bombay Stock Exchange
C-DAC	Centre for Development of Advanced Computing
CAT	Catchment Area Treatment
CBI	Central Bureau of Investigation
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CER	Certified Emission Reduction
CIGRE	International Council on Large Electric Systems
CMG	Crisis Management Group
CMD	Chairman and Managing Director
CPP	Central Public Procurement
CPGRAMS	Centralised Public Grievance Redress and Monitoring System
CPSE	Central Public Sector Enterprise
CPSU	Central Public Sector Undertaking
CSA	Corporate Sustainability Assessment
CSIR–CGCRI	Council of Scientific and Industrial Research – Central Glass and Ceramic Research Institute
CSRD	Corporate Sustainability Reporting Directive
CSR	Corporate Social Responsibility
C-SOC	Cyber Security Operations Center
CVC	Central Vigilance Commission
CVPPL	Chenab Valley Power Projects Limited
DEFRA	Department for Environment, Food & Rural Affairs
DELNET	Developing Library Network
DG	Diesel Generator
DISCOMs	Distribution Companies

DJSI	Dow Jones Sustainability Index
DLP	Data Loss Prevention
DoPT	Department of Personnel and Training
DPR	Detailed Project Report
DR	Disaster Recovery
DSCI	Data Security Council of India
DPE	Department of Public Enterprises
ED	Executive Director
EDCSS	Employees' Defined Contribution Superannuation Scheme
EDR	Endpoint Detection and Response
EDM	Environment & Diversity Management (Division)
E-Flow	Environmental Flow
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
E&M	Electrical and Mechanical
EMP	Environmental Management Plan
EPC	Engineering, Procurement and Construction
ERP	Enterprise Resource Planning
ESRS	European Sustainability Reporting Standards
ESG	Environmental, Social, and Governance
ESZ	Eco-Sensitive Zone
ET	Economic Times
EV	Electric Vehicle
FDRE	Firm and Dispatchable Renewable Energy
FEM	Finite Element Method
GCP	Green Credit Programme
GE	General Electric
GeM	Government e-Marketplace
GEEF	Global Energy and Environment Foundation
GHG	Greenhouse Gas
GIS	Geographic Information System
GIS	Gas-Insulated Switchgear
GM	General Manager
GMPE	Ground Motion Prediction Equation
GLOF	Glacial Lake Outburst Flood
GRI	Global Reporting Initiative
HBA	House Building Advance
HE	Hydroelectric
HEP	Hydroelectric Project
HIRA	Hazard Identification and Risk Assessment
HMIS	Hospital Management Information System
HP	Himachal Pradesh



HR	Human Resources
HRD	Human Resource Development
HVAC	Heating, Ventilation and Air Conditioning
ICB	International Competitive Bidding
ICFRE	Indian Council of Forestry Research & Education
ICAR-DCFR	Indian Council of Agricultural Research – Directorate of Coldwater Fisheries Research
ICC	Internal Complaints Committee
IEM	Independent External Monitor
IICA	Indian Institute of Corporate Affairs
IHBT	Institute of Himalayan Bioresource Technology
IIM	Indian Institute of Management
INCOLD	International Commission on Large Dams
INHA	Indian National Hydropower Association
INR	Indian Rupee
IMS	Integrated Management System
IMD	India Meteorological Department
ISO	International Organization for Standardization
ISMS	Information Security Management System
ISRO	Indian Space Research Organisation
ISRMTT	Indian Society for Rock Mechanics & Tunneling Technology
IT	Information Technology
IIT	Indian Institute of Technology
J&K	Jammu & Kashmir
JSA	Job Safety Analysis
JKSPDCL	Jammu & Kashmir State Power Development Corporation Limited
JV	Joint Venture
kW	Kilowatt
kWe	Kilowatt electrical
kWp	Kilowatt-peak
KL	Kilolitre
LiFE	Lifestyle for Environment (Mission LiFE)
LODR	Listing Obligations and Disclosure Requirements
LTIFR	Lost Time Injury Frequency Rate
MMU	Mobile Medical Unit
MNRE	Ministry of New and Renewable Energy
MoA	Memorandum of Agreement
MoEF&CC	Ministry of Environment, Forest and Climate Change
MoP	Ministry of Power
MoU	Memorandum of Understanding
MSCI	Morgan Stanley Capital International
MSDS	Material Safety Data Sheet
MU	Million Units

MW	Megawatt
MWp	Megawatt-peak
NAC	Network Access Control
NABL	National Accreditation Board for Testing and Calibration Laboratories
NDC	Nationally Determined Contributions
NHDC	Narmada Hydroelectric Development Corporation
NHPC	National Hydroelectric Power Corporation
NHPC REL	NHPC Renewable Energy Limited
NHRD	National HRD Network
NIPM	National Institute of Personnel Management
NGRBC	National Guidelines on Responsible Business Conduct
NIT	National Institute of Technology
NRC	Nomination & Remuneration Committee
NRSC	National Remote Sensing Centre
NSE	National Stock Exchange of India
O&M	Operation & Maintenance
ODR	Online Dispute Resolution
OHS	Occupational Health and Safety
OPD	Out-Patient Department
OT	Operational Technology
PAF	Plant Availability Factor
PAM	Privileged Access Management
PAT	Pump as Turbine
P&L	Profit and Loss
PFR	Preliminary Feasibility Report
PGCIL	Power Grid Corporation of India Limited
PM	Prime Minister
PPA	Power Purchase Agreement
PS	Power Station
PSP	Pumped Storage Project
PwD	Persons with Disabilities
PwIDD	Persons with Intellectual and Developmental Disabilities
QAP	Quality Assurance Plan
R&D	Research and Development
RAC	Risk Assessment Committee
RE	Renewable Energy
REC	REC Limited (formerly Rural Electrification Corporation Limited)
REHS	Retired Employees' Health Scheme
REIA	Renewable Energy Implementing Agency
RMC	Risk Management Committee
RO	Reverse Osmosis
RTA	Registrar and Transfer Agent

SA 8000	Social Accountability 8000
SASB	Sustainability Accounting Standards Board
SCORES	SEBI Complaints Redress System
SD	Sustainable Development
SDGs	Sustainable Development Goals
SD-WAN	Software-Defined Wide Area Network
SEBI	Securities and Exchange Board of India
SERC	State Electricity Regulatory Commission
SIA	Social Impact Assessment
SIEM	Security Information and Event Management
S&I	Survey & Investigation
SMA	Strong Motion Accelerograph
SCOPE	Standing Conference of Public Enterprises
SHRM	Society for Human Resource Management
STEM	Science, Technology, Engineering and Mathematics
STP	Sewage Treatment Plant
tCO <sub>2</sub> e	tonnes of carbon dioxide equivalent
TAI	Tunnelling Association of India
TBM	Tunnel Boring Machine
TBCB	Tariff Based Competitive Bidding
T&D	Transmission and Distribution
TPREL	Tata Power Renewable Energy Limited
UHF	Ultra High Frequency
UNFCCC	United Nations Framework Convention on Climate Change
UPSI	Unpublished Price Sensitive Information
UT	Union Territory
VAPT	Vulnerability Assessment and Penetration Testing
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit
WAF	Web Application Firewall
WASH	Water, Sanitation and Hygiene



# GRI Content Index

Statement of use GRI 1 used	NHPC Limited has reported in accordance with the GRI Standards for the period starting 1 <sup>st</sup> April 2024 to 31 <sup>st</sup> March 2025 GRI 1: Foundation 2021		
GRI STANDARD/OTHER SOURCE	DISCLOSURE	LOCATION	PAGE NO.
GRI 2: General Disclosures 2021	2-1 Organizational details	About the Report	14-15
	2-2 Entities included in the organization's sustainability reporting	About the Report	3
	2-3 Reporting period, frequency and contact point	About the Report	3
	2-4 Restatements of information	About the Report	3
	2-5 External assurance	About the Report	3
	2-6 Activities, value chain and other business relationships	NHPC Overview NHPC's Pan-India Presence	14-15, 20-23
	2-7 Employees	Human Capital Development	114-124
	2-8 Workers who are not employees	Human Capital Development	114-124
	2-9 Governance structure and composition	NHPC's Organizational Structure	44-49
	2-10 Nomination and selection of the highest governance body	NHPC's Organizational Structure	44-49
	2-11 Chair of the highest governance body	NHPC's Organizational Structure	48-49
	2-12 Role of the highest governance body in overseeing the management of impacts	Corporate Governance	48-49
	2-13 Delegation of responsibility for managing impacts	Corporate Governance	48-49
	2-14 Role of the highest governance body in sustainability reporting	Corporate Governance	44
	2-15 Conflicts of interest	Ethics, Integrity & Transparency	56-57
	2-16 Communication of critical concerns	Stakeholder engagement	54-55
	2-17 Collective knowledge of the highest governance body	Corporate Governance- Capacity Building for Board Members	53-54
	2-18 Evaluation of the performance of the highest governance body	Corporate Governance- Board Compensation and Evaluation	52

GRI STANDARD/OTHER SOURCE	DISCLOSURE	LOCATION	PAGE NO.
	2-19 Remuneration policies	Corporate Governance-Board Compensation and Evaluation	52
	2-20 Process to determine remuneration	Corporate Governance-Board Compensation and Evaluation	52
	2-21 Annual total compensation ratio	Corporate Governance-Board Compensation and Evaluation	52
	2-22 Statement on sustainable development strategy	Message from Chairman	5
	2-23 Policy commitments	Policy Framework & Accountability	61
	2-24 Embedding policy commitments	Policy Framework & Accountability	61
	2-25 Processes to remediate negative impacts	Materiality Assessment	26-36, 54-55
	2-26 Mechanisms for seeking advice and raising concerns	Ethics, Integrity & Transparency	56-57
	2-27 Compliance with laws and regulations	Regulatory Compliance and Risk Management	35
	2-28 Membership associations	Associations and Memberships	77
	2-29 Approach to stakeholder engagement	Stakeholder Engagement	54-55
	2-30 Collective bargaining agreements	Ethics, Integrity & Transparency	56
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Materiality Assessment	26-36
	3-2 List of material topics		
	3-3 Management of material topics		
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Economic Performance	24-25
	201-2 Financial implications and other risks and opportunities due to climate change	Risk Assessment	69-73
	201-3 Defined benefit plan obligations and other retirement plans	Strengthening Employee Well-being through Comprehensive Benefits	130-133
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	NHPC maintains this data internally as it is confidential.	
	202-2 Proportion of senior management hired from the local community		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36

GRI STANDARD/OTHER SOURCE	DISCLOSURE	LOCATION	PAGE NO.
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Empowering Communities: NHPC CSR Impact Stories	148-157
	203-2 Significant indirect economic impacts	Biodiversity Conservation	108-111
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Responsible Supply Chain	136-138
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Ethics, Integrity & Transparency	56-58
	205-2 Communication and training about anti-corruption policies and procedures		
	205-3 Confirmed incidents of corruption and actions taken		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Ethics, Integrity & Transparency	56-58
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Energy Management	92-95
	302-2 Energy consumption outside of the organization		
	302-3 Energy intensity		
	302-4 Reduction of energy consumption		
	302-5 Reductions in energy requirements of products and services		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Responsible Water Management	100-103
	303-2 Management of water discharge-related impacts		
	303-3 Water withdrawal		
	303-4 Water discharge		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36

GRI STANDARD/OTHER SOURCE	DISCLOSURE	LOCATION	PAGE NO.
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Biodiversity Conservation	108-111
	304-2 Significant impacts of activities, products and services on biodiversity		
	304-3 Habitats protected or restored		
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Emissions Management	95-99
	305-2 Energy indirect (Scope 2) GHG emissions		
	305-3 Other indirect (Scope 3) GHG emissions		
	305-4 GHG emissions intensity		
	305-5 Reduction of GHG emissions		
	305-6 Emissions of ozone-depleting substances (ODS)		
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Waste Management	104-107
	306-2 Management of significant waste-related impacts		
	306-3 Waste generated		
	306-4 Waste diverted from disposal		
	306-5 Waste directed to disposal		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Responsible Supply Chain	136-138
	308-2 Negative environmental impacts in the supply chain and actions taken		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36



GRI STANDARD/OTHER SOURCE	DISCLOSURE	LOCATION	PAGE NO.
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	New Employee Hires	118
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Strengthening Employee Well-being through Comprehensive Benefits	130-133
	401-3 Parental leave	Strengthening Employee Well-being through Comprehensive Benefits	130-133
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 402: Labour/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	Human Rights	134-135
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Occupational Health, Safety & Wellness	139-142
	403-2 Hazard identification, risk assessment, and incident investigation		
	403-3 Occupational health services		
	403-4 Worker participation, consultation, and communication on occupational health and safety		
	403-5 Worker training on occupational health and safety		
	403-6 Promotion of worker health		
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		
	403-8 Workers covered by an occupational health and safety management system		
	403-9 Work-related injuries		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Employee Development and Capability Building	125-129
	404-2 Programs for upgrading employee skills and transition assistance programs		
	404-3 Percentage of employees receiving regular performance and career development reviews	Annual Review Cycle	129
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Diversity & Equal Opportunities	121-124

GRI STANDARD/OTHER SOURCE	DISCLOSURE	LOCATION	PAGE NO.
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Human Rights	134-135
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Not Applicable. NHPC has no established union or association.	
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 408: Child Labour 2016	408-1 Operations and suppliers at significant risk for incidents of child labour	Human Rights, Responsible Supply Chain	134-138
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 409: Forced or Compulsory Labour 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	Human Rights, Responsible Supply Chain	134-138
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	Human Rights	134-135
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	Biodiversity Conservation Human Rights	108, 134
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	NHPC's Strategic Approach to CSR: Engaging Stakeholders for Sustainable Impact	144-157
GRI 413: Local Communities 2016	413-2 Operations with significant actual and potential negative impacts on local communities		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Responsible Supply Chain	136-138
	414-2 Negative social impacts in the supply chain and actions taken		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36

GRI STANDARD/OTHER SOURCE	DISCLOSURE	LOCATION	PAGE NO.
GRI 415: Public Policy 2016	415-1 Political contributions	NHPC does not make any contribution towards any political parties either financially or through in-kind Contributions	
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	NHPC is a power generation company and sells its power to various DISCOMs which sell it further to end consumers. It does not advertise its products and services.	
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services		
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment	26-36
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Cybersecurity and Information Security Management	74-76

# SASB Content Index

SASB Topic	Accounting metrics	Unit of Measure	Code	Corresponding GRI-metric / Section/ Remarks
GHG Emissions	Gross global scope 1 emissions, percentage covered under emissions- limiting regulations and emissions- reporting regulations	Metric tons (t) CO <sub>2</sub> e, Percentage (%)	IF-EU-110a.1	GRI 305-1: Direct GHG emissions (scope 1)
	GHG emissions associated with power deliveries	Metric tons (t) CO <sub>2</sub> e	IF-EU-110a.2	GRI 305-2 Energy indirect (Scope 2) GHG emissions
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, missions reduction targets and an analysis of performance against those targets	N/A	IF-EU-110a.3	Strategic ESG Goals and Targets
Air Quality	Air emissions of the following pollutants: CO, NOx (Excluding N <sub>2</sub> O), SOx, particulate matter (PM10) mercury (Hg) lead (Pb) and volatile organic compounds	Metric tons (t), Percentage (%)	F-EU-120a.1	GRI 305-7: NOx, SOx and other significant air emissions.
Water Management	Total fresh water withdrawn, total fresh water consumed, percentage of each in regions with high or extremely high baseline water stress	Thousand cubic meters, percentage	IF-EU-140a.1	GRI 303-3 Water withdrawal GRI 303- 4 Water discharge GRI 303-5 Water consumption
	Number of incidents of non- compliance associated with water quantity and/or quality permits, standards and regulations	Number	IF-EU-140a.2	GRI 307-1 Non-compliance with environmental laws and regulations
	Description of water management risks and discussion of strategies and practices to mitigate those risks	N/A	IF-EU-140a.3	Water Conservation
Coal Ash Management	Amount of coal combustion residuals (CCR) generated; percentage recycled	Metric tons (t), Percentage (%)	IF-EU-150a.1	The topic does not directly apply to NHPC, since it's a renewable energy producer.
	Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment	Number	IF-EU-150a.2	
Energy Affordability	Average retail electric rate for (1) residential, (2) commercial and (3) industrial customers	Rate	IF-EU-240a.1	NHPC is a power producing company and the produced energy is sold through Power purchase agreements to States/ DISCOMS.  The topic does not directly apply to NHPC.
	Typical monthly electric bill for residential customers for (1) 500 kWh and (2) 1,000 kWh of electricity delivered per month	Reporting currency	IF-EU-240a.2	
	Number of residential customer electric disconnections for non-payment, percentage reconnected within 30 days	Number, Percentage (%)	IF-EU-240a.3	
	Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory	N/A	IF-EU-240a.4	
Workforce Health & Safety	(1) Total recordable incident rate (TRIR), (2) fatality rate and (3) near miss frequency rate (NMFR)	Rate	IF-EU-320a.1	GRI 403-9 Work-related injuries GRI 403-10 Work-related ill health



SASB Topic	Accounting metrics	Unit of Measure	Code	Corresponding GRI-metric / Section/ Remarks
End-Use Efficiency & Demand	Percentage of electric utility revenues from rate structures that (1) are decoupled and (2) contain a lost revenue adjustment mechanism (LRAM)	Percentage (%)	IF-EU-420a.1	NHPC is a power producing company and the produced energy is sold through Power purchase agreements to States/ DISCOMS.  The topic does not directly apply to NHPC.
	Percentage of electric load served by smart grid technology	Percentage (%) by megawatt Hours (MWh)	IF-EU-420a.2	
	Customer electricity savings from efficiency measures, by market	Megawatt Hours (MWh)	IF-EU-420a.3	
Nuclear Safety & Emergency Management	Total number of nuclear power units, broken down by U.S. Nuclear Regulatory Commission (NRC) Action Matrix Column	Number	IF-EU-540a.1	The topic does not directly apply to NHPC, since it's a renewable energy producer.
	Description of efforts to manage nuclear safety and emergency preparedness.	N/A	IF-EU-540a.2	
Grid Resiliency	Number of incidents of non- compliance with physical and/or cybersecurity standards or regulations	Number	IF-EU-550a.1	
	(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI) and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days	Minutes, Number	IF-EU-550a.2	

# Independent Assurance Statement



**Social Responsibility Asia (SR Asia)**  
(AN ISO 9001: 2015 Certified Org.)



## Independent Assurance Statement on Sustainability Report FY24-25

<b>Ref. Number</b>	: 010/000-178/2025/SR-Asia/India
<b>Assurance Type</b>	: Type 1, Limited Assurance
<b>Assurance Level</b>	: Moderate level engagement
<b>Reporting Standards</b>	: GRI Standard (2021), SASB Standards
<b>Assurance Standards</b>	: ISAE 3000 (revised), ISAE 3410 & AA1000ASv3

**To**

### NHPC Limited

NHPC Limited, hereinafter referred to as “the Company” or “the Reporting Organization,” has appointed Social Responsibility Asia (SR Asia), hereinafter referred to as “the Assurer,” to carry out a Limited Assurance of its Sustainability Report (“the Report”) covering the period April 1, 2024, to March 31, 2025.

NHPC Limited is a Navratna Central Public Sector Enterprise incorporated in 1975 and listed on both the NSE and BSE, engaged in the generation, sale, and trading of electricity from hydro, solar, and wind power sources. In FY 2024–25, NHPC marked its **Golden Jubilee Year**, reinforcing its strategic role in India’s clean energy transition and sustainable development agenda.

The Independent Assurance Statement (“the Statement”) has been prepared by SR Asia and reflects the results of the assurance work conducted by following the specific methods and approaches as per the contractual agreement

### 1. Intended use & Purpose

This assurance report is prepared solely for the Reporting Organization in accordance with the contract agreement for Limited Assurance. It is not intended for use or reliance by any other party, who access it at their own risk. In line with applicable laws, we accept no responsibility or liability to any party other than the Reporting Organization for our work, this report, or its conclusions.

CIN No: U93000DL2012NPL231376    GST: 07AAQCS9621N1ZI    Udyam Reg. No: UDYAM-UP-29-0003108

## Social Responsibility Asia (SR Asia)

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### 2. Responsibilities

SR Asia and the Management both recognized the responsibilities of parties as specified in the Non-Disclosure Agreement, Engagement Agreement, and Work Order documents. The Management is fully responsible for the content of the Report. The responsibility of SR Asia is to provide an assurance service, NOT an audit, on the Report content. SR Asia is also responsible for generating conclusions and recommendations, including the Statement derived from the results of assurance work based on the agreed standards and methodology as indicated in the agreement document. Unless the law requires it, our responsibility to disclose the results of assurance work is only to the Management. SR Asia has NO responsibilities or accountabilities for any risks or claims arising from third-party reliance on the results of assurance work, the Statement, and the Report, or any issues, data, and information not covered in this Statement or the Report.

### 3. Scope and subject matter

The scope work is to provide a limited assurance to Sustainability Report of NHPC Limited in accordance to the relevant standards such as International Standards of Assurance Engagement (ISAE) 3000 and issue a “Limited Assurance Statement on Sustainability Report of NHPC Limited for FY 2024-25”.

The assurance procedures included a review of the consistency and alignment of quantitative performance indicators and qualitative disclosures across the Sustainability FY 2024–25. The scope covered assessment of data accuracy, reliability, and audit trails for selected sustainability indicators, including evaluation of data collection, aggregation, and reporting processes in accordance with applicable non-financial assurance standards.

The engagement also involved a review of NHPC Limited’s sustainability strategy, governance mechanisms, target setting, and performance measurement related to material and stakeholder issues, along with an assessment of relevant policies, plans, and practices to evaluate the fairness and balance of reported information. Site visits were undertaken on a sample basis where required, and coordination with the report preparation consultants was carried out to facilitate clarity on data requirements and ensure effective execution of the assurance process.

CIN No: U93000DL2012NPL231376    GST: 07AAQCS9621N1ZI    Udyam Reg. No: UDYAM-UP-29-0003108

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### 4. Description and Sources of Disclosures Covered

The company has used the GRI Standards 2021 and the SASB Standard for Electric Utilities & Power Generators as the primary reference for designing, developing, and preparing the Sustainability Report FY 2024-25. The reported information on General Disclosure along with Management approach as per disclosure requirements of GRI 102, GRI 103 is covered.

#### Sector Specific Disclosures

- GRI 3-1 to 3-3: Disclosure on Material Topics
- GRI 302-1: Energy consumption within the organization (Hydropower, renewable energy usage)
- GRI 302-3: Energy intensity (Energy consumption per MWh generated)
- GRI 303-1 to 303-5: Water usage, conservation, wastewater treatment
- GRI 304-1 to 304-3: Impact on biodiversity, protected areas affected by hydropower plants
- GRI 305-1 to 305-5: Greenhouse gas (GHG) emissions (Scope 1, 2, and reduction initiatives)
- GRI 306-3 to 306-5: Waste
- GRI 401-1 to 401-3: Employee recruitment, turnover, parental leave policies
- GRI 403-1 to 403-9: Occupational health and safety
- GRI 404-1 to 404-3: Training and education
- GRI 405-1: Diversity and Equal opportunity
- GRI 406-1: Non-discrimination, workplace diversity policies
- GRI 413-1 to 413-2: Local community engagement, impact assessments
- Materiality Assessment process
- Resettlement & Rehabilitation (R&R): Policies for displaced communities
- Dam Safety & Risk Management: Compliance with national and global standards

### 5. Methodology

The limited assurance engagement involved verifying reported data, assessing integrity, and evaluating quality protocols. Our procedures were designed to obtain a limited level of assurance and do not encompass exhaustive evidence. While we considered the effectiveness of

CIN No: **U93000DL2012NPL231376** GST: **07AAQCS9621N1ZI** Udyam Reg. No: **UDYAM-UP-29-0003108**

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## Social Responsibility Asia (SR Asia)

(AN ISO 9001: 2015 Certified Org.)



management's internal controls in defining our approach, our engagement did not extend to testing these controls or verifying data aggregation within web portal systems. The process included gap assessment, inquiries with personnel responsible for the **Sustainability Report FY 2024-25**, and the application of analytical and other appropriate procedures.

Our procedures included:

- Checking the standard disclosures regarding the company's double materiality sustainability aspects contained in the report;
- Checking consistency of data / information within the report;
- Testing on a random sample basis, (onsite and virtual), underlying source information to check the accuracy of the data for the following sites, through physical and virtual consultations with the site team and corporate sustainability team;

S No	Sites	States	Mode of Assessment
1	Uri-I PS	Jammu and Kashmir	Onsite
2	Uri-II PS	Jammu and Kashmir	Onsite
3	Chamera – 1 PS	Himachal Pradesh	Onsite
4	NHPC Corporate office	Haryana	Onsite and Virtual

### 6. Independence, Impartiality, and Competence

SR Asia implements assurance mechanisms and procedures in accordance with a professional code of conduct, ensuring that all engagements are conducted with objectivity and integrity, in compliance with the principle of independence. A pre-engagement assessment is conducted to evaluate engagement risks, as well as to verify the independence and impartiality of experts involved in the assurance process. The Assurance Team comprises qualified professionals with expertise in ISO 26000 and AA1000 AccountAbility standards, along with extensive experience in sustainability and integrated reporting. The team is well-versed in various reporting frameworks and assurance standards, including GRI, ISAE 3000 (revised), and AA1000AS, ensuring a comprehensive and credible assurance process.

### 7. Limitations and approach used to mitigate limitations

The assurance scope excludes following:

CIN No: **U93000DL2012NPL231376** GST: **07AAQCS9621N1ZI** Udyam Reg. No: **UDYAM-UP-29-0003108**

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- Data related to the Company's financial performance.
- Data and information outside the defined Reporting Period FY 2024-25.
- Data outside the operations mentioned in the assurance boundary above unless and otherwise specifically mentioned in this assurance report.
- The Company's statements that describe expression of opinion, claims, belief, aspiration, expectation, aim to future intention provided by the Company and assertions related to Intellectual Property Rights and other competitive issues.
- Strategy and other related linkages expressed in the Report.
- Mapping of the Report with reporting frameworks other than those mentioned in reporting criteria above.
- Aspects of the Report other than those mentioned under the scope and boundary above.
- Performance of any management function or making any decision relating to the services provided by us in the terms of this report. The Company is responsible for making management decisions, including accepting responsibility for the results of our services.
- Review of legal compliances.

### Findings and Conclusions

#### Inclusivity

The assurance process included an assessment of NHPC Limited's stakeholder identification and engagement mechanisms to evaluate whether the sustainability disclosures reflect the perspectives of key internal and external stakeholders. Based on our review, stakeholder engagement processes are appropriately structured and integrated into the reporting framework.

#### Materiality

We reviewed double materiality determination process, including the identification, prioritization, and validation of material sustainability topics. The material issues disclosed are generic and required in line with sector specific taxonomy and details.

#### Responsiveness

Based on the procedures performed, nothing has come to our attention to indicate that NHPC has not appropriately responded to identified material issues through relevant policies, governance

CIN No: **U93000DL2012NPL231376** GST: **07AAQCS9621N1ZI** Udyam Reg. No: **UDYAM-UP-29-0003108**

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mechanisms, targets, and performance disclosures. The report reflects an appropriate level of responsiveness through defined management approaches and disclosures that are aligned with material sustainability priorities.

### Impact

We evaluated whether the reported information provides a fair representation of NHPC's environmental, social and governance impacts. Based on the assurance procedures performed, the disclosures reflect the organization's sustainability performance and outcomes during the reporting period.

### Conclusion

In accordance with the GRI Standards (2021), the Assurance Team has concluded that NHPC Limited has prepared the Sustainability Report in alignment with the applicable GRI reporting requirements for the power generation sector. The Report sufficiently covers disclosures for all identified material topics, with the General Disclosures and Disclosures on Management Approach being well presented, along with appropriate statements explaining omissions, wherever applicable.

Birendra Raturi  
(Team Lead- Assurance)  
24<sup>th</sup> December 2025

BIRENDRA  
DUTT  
RATURI

Digitally signed by BIRENDRA  
DUTT RATURI  
DN: cn=BIRENDRA DUTT RATURI,  
c=IN o=PERSONAL  
Reason: I am the author of this  
document  
Location:  
Date: 2025-12-24 17:39+05:30

The assurance provider,



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## NHPC Limited

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