July 07, 2023

NHPC Limited: Rating reaffirmed

Summary of rating action

Instrument*	Previous Rated Amount (Rs. crore)	Current Rated Amount (Rs. crore)	Rating Action
Long-term bond programme	4765.91	4,765.91	[ICRA]AAA(Stable); reaffirmed
Long-term bond programme	533.39	-	[ICRA]AAA(Stable); reaffirmed and withdrawn
Total	**5,299.30**	**4,765.91**	

**Instrument details are provided in Annexure-I*

Rationale

ICRA has reaffirmed and withdrawn the long-term rating of [ICRA]AAA(Stable) assigned to the Rs. 533.39-crore bonds of NHPC Limited (NHPC) as there are no outstanding dues against the same. The redemption payments have been independently verified.

The rating reaffirmation factors in the strategic role of NHPC in the hydropower generation sector as India's largest power generation utility and its strategic importance to the Government of India (GoI), which held a 70.95% stake in the company as on March 31, 2023. The rating also factors in the low business risk for the company because of the cost-plus tariff structure for all its operational assets, ensuring regulated returns.

ICRA also favourably notes the competitive tariff level for the company's power plants and the strong operating efficiencies, reflected in the higher-than-normative plant availability factor (PAF) over the years. Further, the rating continues to factor in the healthy track record of power generation from the operational hydel power projects, aided by a favourable hydrology. The company's credit profile is also supported by a favourable capital structure, reflected in a debt-to-equity ratio of 0.76 times on a consolidated basis, and a strong liquidity with cash and bank balances of Rs. 3,529 crore on a consolidated basis as on March 31, 2023.

Further, the company continues to benefit from the long tenure of debt, including subordinate debt from the GoI, at a low interest rate for some projects in Jammu and Kashmir (J&K). The strong parentage and the long economic life of hydropower projects afford superior financial flexibility to the company. ICRA expects NHPC's revenue and cash flows to scale up significantly post the commissioning of its two critical projects - Subansiri Lower and Parbati II - over the next 12-18 months.

ICRA, however, takes cognisance of the execution risks, including the risk of time and cost overruns, inherent in greenfield hydropower projects. Several of NHPC's recent and ongoing hydropower projects have seen significant time and cost overruns and further overruns cannot be ruled out. However, construction work on Subansiri Lower 2,000-MW HEP, which was stalled since December 2011, was resumed in October 2019 and is expected to be commissioned in Q3 FY2025. Two units of 200 MW each of the Parbati II (800 MW) hydropower project were synchronised, and the project is expected to be commissioned in Q4 FY2024. Apart from the Subansiri Lower and Partbati II projects, NHPC (along with its subsidiaries) is executing various solar and hydro projects with an aggregate capacity of 7,715 MW.

Given the large-sized projects under construction, the company's ability to commission these projects on time and get the requisite approval for capital costs from the Central Electricity Regulatory Commission (CERC) remains crucial from a credit perspective. ICRA also takes into consideration the counterparty credit risk associated with the exposure to state distribution utilities like J&K and UPPCL, though the collections from the discoms have remained satisfactory with the implementation of the LPS Scheme in June 2022. ICRA continues to take comfort from the presence of TPA which mitigates the counterparty credit risk substantially.

The Stable outlook on the [ICRA]AAA rating reflects ICRA's opinion that NHPC will be able to sustain its generation performance with a satisfactory collection efficiency. Moreover, its under-construction projects are likely to be completed without significant time and cost overruns.

Key rating drivers and their description

Credit strengths

Significant ownership of GoI and support extended by Government- NHPC, with a GoI ownership of 70.95%, is the largest hydropower company in the country and a Mini Ratna Category I public sector undertaking (PSU). The company has an installed capacity of 5,551 MW on a standalone basis (including 50-MW solar and 50-MW wind power capacity) and 7,071 MW (including 1,520 MW of its 51.08% owned subsidiary, NHDC) on a consolidated basis. It plays an important role in implementing the GoI's planned capacity addition in the hydel power sector. The strategic importance of NHPC is also evident from the long-term loans extended by the GoI at concessional rates for some of its hydropower projects in Jammu and Kashmir (J&K).

Regulated tariff ensures stable returns – The tariffs for NHPC's hydropower projects are determined as per the CERC regulations on a cost-plus basis, which ensures recovery of depreciation, interest on long-term loan and working capital loan, return on equity and operation and maintenance (O&M) expenses. The tariff norms are notified for a block of five years. The recovery of fixed cost is subject to normative plant availability for each plant, as notified by the CERC. NHPC has demonstrated a satisfactory operational performance in the past.

Stable operational efficiency – NHPC has showcased superior operating performance across its portfolio of projects, enabling it to not only earn a regulated return on equity, but also incentives for superior plant availability as well as higher-than-design energy (secondary energy) generation. NHPC reported incentives of Rs. 1,126 crore in FY2023 and Rs. 836.0 crore in FY2022 on a consolidated basis.

Comfortable financial risk profile – The comfortable financial risk profile of NHPC is evident from a gearing of 0.8 times, interest coverage ratio of 13.4 times and total debt (TD)/ OPBDITA of 4.96 times on a consolidated basis as on March 31, 2023. Given that NHPC is expected to incur a capex of Rs. 9,000-1,000 crore on an annual basis, the TD/OPBITDA is expected to remain elevated. Nevertheless, ICRA notes that given the vintage of the operating plants, the associated project debt is relatively low and hence the operational project debt/OPBITDA is 1.4 times as on March 31, 2023 Additionally, the debt servicing of the under-construction projects will remain supported by the cost-plus regulated tariff regime.

Policy measures to promote hydropower sector a positive – The Ministry of Power has announced several measures to promote the hydropower sector in the country. These include the declaration of large hydropower projects (>25 MW) as a renewable energy source, hydropower purchase obligation (HPO) as a separate entity within the non-solar renewable purchase obligation, notification of the HPO trajectory till FY2030, tariff rationalisation steps like back loading of tariff, increase in the life of a project from 35 years to 40 years, increasing the debt repayment period to 18 years, budgetary support for flood moderation/storage hydroelectric projects and budgetary support for the cost of enabling infrastructure (i.e. roads/ bridges). Power generated from Parbati (800 MW) and Subansiri (2000 MW) will be eligible for meeting the HPO obligations of state discoms, which adds to their attractiveness and affordability despite the expected levelised tariff being relatively high. In addition, the introduction of energy storage obligation and guidelines for the development of pumped storage hydro projects offer an attractive growth opportunity for an established industry player like NHPC.

Grid balancing role of hydropower - With the GoI's present initiative of extensive renewable energy development, particularly large-scale deployment of solar power, hydropower would be required for grid balancing/stability. Hydropower plays a crucial role in meeting the peak power requirements of the system.

Credit challenges

Counterparty credit risk on account of exposure to state distribution utilities - NHPC is exposed to state power distribution utilities with relatively weak credit profiles, which may impact its collection efficiency. While the overall receivables (excluding unbilled revenue) have increased from Rs. 2,660 crore as on March 31, 2022 to Rs. 3,130 crore as on March 31, 2023, dues greater that 45 days have come down from Rs. 1,024 crore to Rs. 168 crore during the same period on a standalone basis. This has been aided by timely payments from state distribution utilities for current dues and structured payments against old dues under the LPS scheme. ICRA continues to take comfort from the presence of TPA which mitigates the counterparty credit risk substantially.

Execution risk associated with under-construction projects – The two major under-construction hydro projects of NHPC, Subansiri (2,000 MW) and Parbati (800 MW), have witnessed sizeable delays in execution and associated cost overruns over the past years. ICRA notes that the execution risks are now abating. Dam construction till the top level in Subansiri has been completed and excavation of only 77 metres is left for the head race tunnel in Parbati. Hence, there is less uncertainty over the projects achieving commissioning beyond the current estimates (December 2024 for Subansiri and March 2024 for Parbati). Nevertheless, ICRA has factored in a 6 months' delay in the commissioning of these projects. Timely completion of the under-construction projects without further material time and cost overruns, and approval of the capital cost for tariff determination by the CERC, will remain the key rating sensitivities.

Cost-competitive power from new projects - The under-construction power projects have high capital cost per MW, which will make the cost of power from such projects unattractive compared to thermal power projects and the prevailing wind/solar tariffs. Therefore, the ability of the company to complete the projects on time and within the budgeted cost, and the rationalisation of tariff through various measures will be critical to ensure the cost competitiveness of power. It may be noted that hydropower is required for grid stabilisation and can provide peaking power. Hence, it can command a premium over other sources of power. Moreover, the recent measures by the Ministry of Power, including hydropower purchase obligation, are expected to increase the demand for power from hydropower projects, going forward.

Regulatory risk due to cost-plus regime - The tariff for the company's hydel power projects is determined as per CERC norms that are revised every five years. The latest tariff norms were notified on March 7, 2019, for FY2020-24, which provide visibility for the period. However, in case stringent norms are finalised in the future (for instance, with lower return on equity), the company's profitability may be impacted.

Environmental and Social Risks

Environmental consideration: NHPC generates power through renewable energy (hydro, solar and wind), which produces clean power and reduces greenhouse gases compared to other conventional mode of power generation. All its operational units are compliant with all the environmental regulations and various statutory approvals/permits are granted by the authorities. While the company's revenues remain vulnerable to availability of resources (hydro/ wind/ solar), the risk is mitigated by a diversified and sizeable asset base. Thus, overall, NHPC exhibits low environment risks.

Social considerations: NHPC is developing large hydropower projects and is thus exposed to resettlement & rehabilitation (R&R) issues. These issues result in resistance from the local population (near vicinity of the plant location) and thus, can delay the execution of the under-construction projects. Given the sizeable experience of the company in developing projects and implementing mitigating measures, the company is exposed to moderate social risks.

Liquidity position: Strong

The liquidity of the company is strong. The cost-plus tariff and superior operating performance is expected to result in strong coverage indicators. While free cash flows will remain subdued on account of the consistent capital expenditure to be incurred over the next few years (Rs. 10,000-Rs. 11,000 crore) and the sizeable repayment obligations (Rs. 1,942 crore in FY2024, Rs. 2,788 crore in FY2025 and Rs. 3678 crore in FY2026), ICRA takes comfort from the superior financial flexibility of the company for raising project debt in a timely manner and its superior refinancing ability by virtue of its strong parentage and the long economic life of the hydro projects (40 years as per prevailing CERC regulations). The company had cash and liquid investments of Rs. 3,529 crore and unutilised cash credit limits of Rs. 925 crore as on March 31, 2023 on a consolidated basis.

Rating sensitivities

Positive factors – Not applicable

Negative factors – The rating could be downgraded if there is a significant build up in receivables, and/or if there is significant disapproval for cost and time overrun for the under-construction projects of the CERC/SERC. The rating could also be revised due to a material change in the regulatory cost-plus regime for determining the tariffs of the hydropower projects, impacting the company's returns. Pressure on the rating could also arise from a material change in the shareholding of the GoI and/or change in linkage with the GoI.

Analytical approach

Analytical Approach	Comments
Applicable rating methodologies	Corporate Credit Rating Methodology Impact of Parent or Group support on a Entity's Credit Rating Policy on Withdrawal of Credit Ratings
Parent/Group support	The rating derives strength from the majority ownership by the Government of India (70.95% as on March 31, 2023) in NHPC, given its strategic importance and significant scale of operations in the hydropower sector in India
Consolidation/Standalone	The rating is based on the consolidated financial statements of the company. Details in Annexure II

About the company

NHPC, a Mini Ratna Category I public sector utility, is the GoI's flagship hydroelectric generation company. As on March 31, 2023, the GoI's shareholding in the company was 70.95%. It is the largest HEP developer in India with an installed capacity of 5,551 MW on a standalone basis and 7,071 MW on a consolidated basis (including 1,520 MW of its 51.08%-owned subsidiary NHDC) as on March 31, 2023. The company supplies power to distribution utilities, mainly in northern, eastern and northeastern India under a long-term PPA.

Key financial indicators (audited)

NHPC Consolidated	FY2022	FY2023
Operating income	9,416	10,704
PAT	3,776	4,240
OPBDIT/OI	58.0%	59.5%
PAT/OI	40.1%	39.6%
Total outside liabilities/Tangible net worth (times)	1.0	1.1
Total debt/OPBDIT (times)	5.2	5.0
Interest coverage (times)	10.3	13.4

PAT: Profit after tax; OPBDIT: Operating profit before depreciation, interest, taxes and amortisation; Amount in Rs crore

Status of non-cooperation with previous CRA: Not applicable

Any other information: None

Rating history for past three years

	Instrument	Current rating (FY2024)				Chronology of rating history for the past 3 years		
		Type	Amount rated (Rs. crore)	Amount outstanding as of May 31, 2023 (Rs. crore)	Date & rating in FY2024	Date & rating in FY2023	Date & rating in FY2022	Date & rating in FY2021
					Jul 07, 2023	Jul 08, 2022	Jul 09, 2021	Jul 24, 2020
1	Long term bond programme	Long term	4,765.91	4,765.91	[ICRA]AAA (Stable)	[ICRA]AAA(Stable)	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)
2	Long term bond programme	Long term	533.39	-	[ICRA] AAA (Stable); withdrawn	[ICRA] AAA (Stable); withdrawn	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)
3	Unplaced bond programme	Long term	-	-	-	[ICRA] AAA (Stable); withdrawn	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)

Complexity level of the rated instrument

Instrument	Complexity Indicator
Bond programme	Very Simple

The Complexity Indicator refers to the ease with which the returns associated with the rated instrument could be estimated. It does not indicate the risk related to the timely payments on the instrument, which is rather indicated by the instrument's credit rating. It also does not indicate the complexity associated with analysing an entity's financial, business, industry risks or complexity related to the structural, transactional or legal aspects. Details on the complexity levels of the instruments are available on ICRA's website: Click Here

Annexure I: Instrument details

ISIN	Instrument	Date of Issuance	Coupon Rate	Maturity Date	Amount Rated (Rs Cr)	Current rating and outlook
INE848E07138	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-24	105.5	[ICRA]AAA (Stable)
INE848E07146	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-25	105.5	[ICRA]AAA (Stable)
INE848E07153	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-26	105.5	[ICRA]AAA (Stable)
INE848E07161	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-27	105.5	[ICRA]AAA (Stable)
INE848E07260	LT Bonds- R Series-Tranche 1	11-Feb-13	8.70%	11-Feb-24	6.85	[ICRA]AAA (Stable)
INE848E07492	LT Bonds- R Series-Tranche 1	11-Feb-13	8.70%	11-Feb-25	6.85	[ICRA]AAA (Stable)
INE848E07500	LT Bonds- R Series-Tranche 1	11-Feb-13	8.70%	11-Feb-26	6.85	[ICRA]AAA (Stable)
INE848E07351	LT Bonds- R Series-Tranche 2	11-Feb-13	8.85%	11-Feb-24	31.84	[ICRA]AAA (Stable)
INE848E07369	LT Bonds- R Series-Tranche 2	11-Feb-13	8.85%	11-Feb-25	31.84	[ICRA]AAA (Stable)
INE848E07377	LT Bonds- R Series-Tranche 2	11-Feb-13	8.85%	11-Feb-26	31.84	[ICRA]AAA (Stable)
INE848E07385	LT Bonds- R Series-Tranche 2	11-Feb-13	8.85%	11-Feb-27	31.84	[ICRA]AAA (Stable)
INE848E07443	LT Bonds- R Series-Tranche 3	11-Feb-13	8.78%	11-Feb-24	89.2	[ICRA]AAA (Stable)
INE848E07450	LT Bonds- R Series-Tranche 3	11-Feb-13	8.78%	11-Feb-25	89.2	[ICRA]AAA (Stable)
INE848E07468	LT Bonds- R Series-Tranche 3	11-Feb-13	8.78%	11-Feb-26	89.2	[ICRA]AAA (Stable)
INE848E07476	LT Bonds- R Series-Tranche 3	11-Feb-13	8.78%	11-Feb-27	89.2	[ICRA]AAA (Stable)
INE848E07484	LT Bonds- R Series-Tranche 3	11-Feb-13	8.78%	11-Feb-28	89.2	[ICRA]AAA (Stable)
INE848E07518	Tax Free Bonds-13-1A	2-Nov-13	8.18%	2-Nov-23	50.81	[ICRA]AAA (Stable)
INE848E07542	Tax Free Bonds-13-1B	2-Nov-13	8.43%	2-Nov-23	60.77	[ICRA]AAA (Stable)
INE848E07526	Tax Free Bonds-13-2A	2-Nov-13	8.54%	2-Nov-28	213.12	[ICRA]AAA (Stable)
INE848E07559	Tax Free Bonds-13-2B	2-Nov-13	8.79%	2-Nov-28	85.61	[ICRA]AAA (Stable)
INE848E07534	Tax Free Bonds-13-3A	2-Nov-13	8.67%	2-Nov-33	336.07	[ICRA]AAA (Stable)
INE848E07567	Tax Free Bonds-13-3B	2-Nov-13	8.92%	2-Nov-33	253.62	[ICRA]AAA (Stable)
INE848E07AI6	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-23	150	[ICRA]AAA (Stable)
INE848E07AJ4	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-24	150	[ICRA]AAA (Stable)
INE848E07AK2	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-25	150	[ICRA]AAA (Stable)
INE848E07AL0	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-26	150	[ICRA]AAA (Stable)
INE848E07AM8	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-27	150	[ICRA]AAA (Stable)
INE848E07AO4	LT Bonds- Y Series	7-Oct-19	7.50%	7-Oct-25	300	[ICRA]AAA (Stable)
INE848E07AP1	LT Bonds- Y Series	7-Oct-19	7.50%	7-Oct-26	300	[ICRA]AAA (Stable)
INE848E07AQ9	LT Bonds- Y Series	7-Oct-19	7.50%	7-Oct-27	300	[ICRA]AAA (Stable)
INE848E07AR7	LT Bonds- Y Series	7-Oct-19	7.50%	7-Oct-28	300	[ICRA]AAA (Stable)
INE848E07AS5	LT Bonds- Y Series	7-Oct-19	7.50%	6-Oct-29	300	[ICRA]AAA (Stable)
INE848E07AT3	LT Bonds- Y1 Series	3-Jan-20	7.38%	3-Jan-26	100	[ICRA]AAA (Stable)
INE848E07AU1	LT Bonds- Y1 Series	3-Jan-20	7.38%	2-Jan-27	100	[ICRA]AAA (Stable)
INE848E07AV9	LT Bonds- Y1 Series	3-Jan-20	7.38%	3-Jan-28	100	[ICRA]AAA (Stable)
INE848E07AW7	LT Bonds- Y1 Series	3-Jan-20	7.38%	3-Jan-29	100	[ICRA]AAA (Stable)
INE848E07AX5	LT Bonds- Y1 Series	3-Jan-20	7.38%	3-Jan-30	100	[ICRA]AAA (Stable)

INE848E07120	**LT Bonds- Q Series**	12-Mar-12	9.25%	12-Mar-23	105.5	[ICRA]AAA (Stable); Withdrawn
INE848E07252	**LT Bonds- R Series-Tranche 1**	11-Feb-13	8.70%	11-Feb-23	6.85	[ICRA]AAA (Stable); Withdrawn
INE848E07344	**LT Bonds- R Series-Tranche 2**	11-Feb-13	8.85%	11-Feb-23	31.84	[ICRA]AAA (Stable); Withdrawn
INE848E07435	**LT Bonds- R Series-Tranche 3**	11-Feb-13	8.78%	11-Feb-23	89.2	[ICRA]AAA (Stable); Withdrawn
INE848E07AH8	**LT Bonds- W1 Series**	15-Sep-17	6.91%	15-Sep-22	300	[ICRA]AAA (Stable); Withdrawn

Note: List of outstanding ISIN as on May 31, 2023.

Source: Company

Annexure II: List of entities considered for consolidated analysis

Company Name	NHPC Ownership	Consolidation Approach
NHPC Limited	100.00% (rated entity)	Full Consolidation
NHDC Limited	51.08%	Full Consolidation
Loktak Downstream Hydroelectric Corporation Limited	74.82%	Full Consolidation
Bundelkhand Saur Urja Limited	86.94%	Full Consolidation
Lanco Teesta Hydro Power Limited	100.00%	Full Consolidation
Jal Power Corporation Limited	100.00%	Full Consolidation
Ratle Hydroelectric Power Corporation	51.00%	Full Consolidation
Chenab Valley Power Projects Limited	52.74%	Full Consolidation
NHPC Renewable Energy Limited	100.00%	Full Consolidation
National High Power Test Laboratory Private Limited	20.00%	Equity Method

Source: Company

Note: ICRA has taken a consolidated view of the parent (NHPC), its subsidiaries and joint ventures while assigning the ratings.

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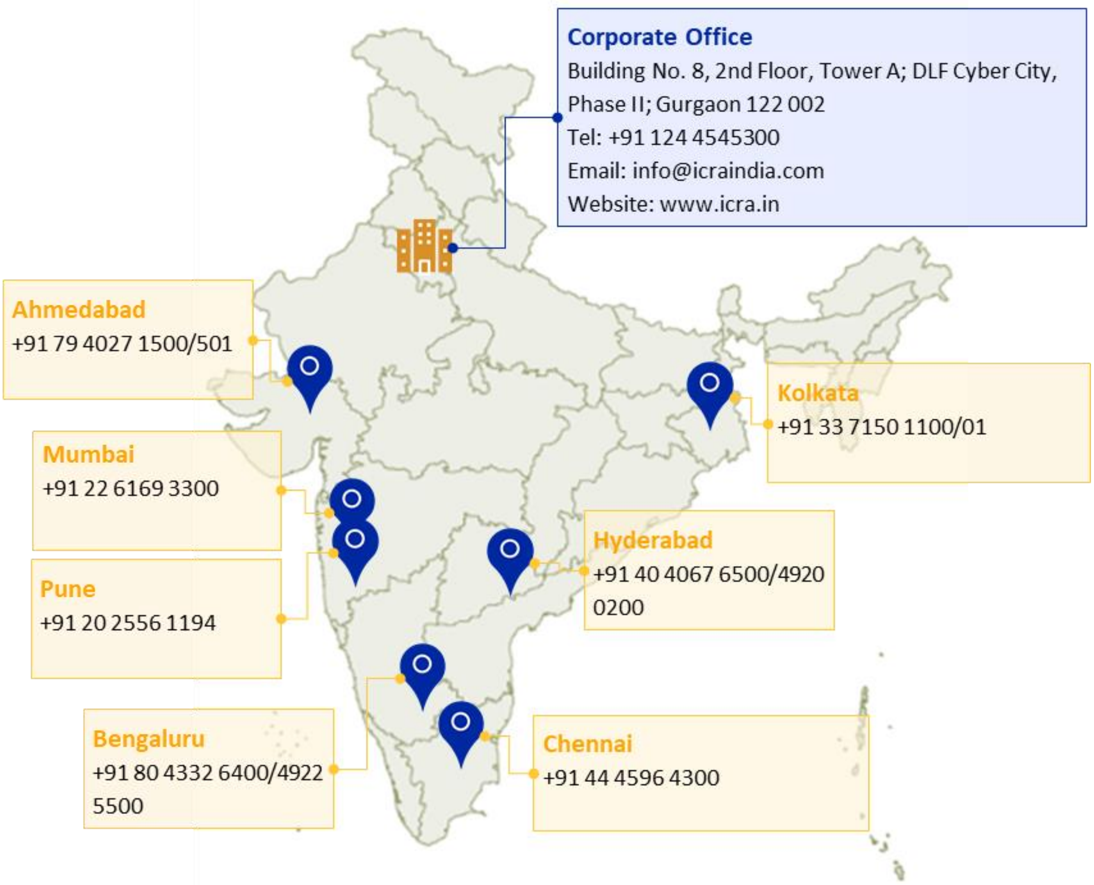

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