

September 30, 2019

NHPC Limited: Ratings assigned

Summary of rating action

Instrument*	Previous Rated Amount (Rs. crore)	Current Rated Amount (Rs. crore)	Rating Action
Long term Bonds programme	0.00	2500.00	[ICRA]AAA(Stable); Assigned
Long term Bonds programme	6250.00	6250.00	[ICRA]AAA(stable); Outstanding
Total	6,250.00	8,750.00	

*Instrument details are provided in Annexure-1

Rationale

ICRA's rating reflects NHPC's established position in India's hydropower generation industry, its significant size of operating projects and the strategic importance to the Government of India (GoI) as reflected by the consistent support from the GoI in terms of low-cost subordinated debt for some of its projects. ICRA also notes the competitive tariffs of its plants with an average tariff of Rs. 3.34/kwh in FY2019 as against Rs 3.38/kWh in FY2018 and strong operating efficiencies as reflected by average plant availability factor (PAF) of 85.32% in FY2018, 84.84% in FY2019 and 90.97% in Q1 FY2020. The rating continues to reflect the low business risks arising out of cost-plus tariff mechanism applicable for its hydel-based power generating stations and favourable demand outlook in the states which comprise most of the company's billing. Further, the rating continues to factor in the healthy track record of power generation from operational hydel-based power projects due to favourable hydrology of the rivers on which these projects are located. Also, the ability of these projects to maintain high operating availability, which enables NHPC to recover annual fixed charges in form of capacity and energy charges on these projects (as envisaged in tariff petitions), support the rating. The credit profile is also supported by a conservative capital structure and strong liquidity despite the large size of the projects under construction as reflected in a debt-to-equity ratio of 0.65 times (standalone basis) as on March 31, 2019, cash position of Rs. 391 crore as on March 31, 2019 (Rs 297 crore as on June 30, 2019), and long tenure of debt including subordinate debt from the GoI at low interest rate for some projects in Jammu and Kashmir (J&K).

ICRA, however, takes cognisance of the execution risks including cost and time overruns inherent in greenfield hydropower projects. Several of NHPC's recent and ongoing hydropower projects have seen significant cost and time overruns and further overruns cannot be ruled out. However, ICRA notes that the NGT has given clearance to Lower Subansiri 2000 MW HEP which has been stalled since December 2011 and the company has signed MoU with Government of Assam for execution of the project. Two units of 200 MW each of Parbati II (800 MW) hydro power project were synchronized in September 2018 while the project is expected to be commissioned in Q3 FY2022. The company is also executing Lanco Teesta (500 MW) hydro power project and Dibang (2880 MW) hydro power project although the projects are in preliminary stage. Presence of Letter of Credit as per terms of PPA and extension of tripartite agreement with 29 states (as on June 30, 2019) beyond October 31, 2016 for payment security will help in sustainability of timely collection in the future. Nevertheless, improvement in the financial and operational profile of state distribution utilities through schemes like Ujwal DISCOM Assurance Yojana (UDAY) are imperative for reducing counterparty credit risk for power generation entities like NHPC.

The Stable outlook on the [ICRA]AAA rating reflects ICRA's opinion that NHPC will be able to sustain power generation performance, collection efficiency shall be satisfactory and projects shall be completed without significant cost and time overrun which is not approved by CERC/SERC.

Key rating drivers and their description

Credit strengths

Sovereign ownership and strategic importance of NHPC to GoI - NHPC is the largest hydropower company in the country and a Mini Ratna Category I public sector undertaking (PSUs). The company had installed capacity of 5551 MW as on June 30, 2019 on standalone basis and 7,071 MW (including 1,520 MW of its 51% owned subsidiary, NHDC). The company plays an important role in implementing the GoI's planned capacity addition in the hydel power sector. Strategic importance of NHPC is also evident from the long-term loans extended by GoI at concessional rates for some hydropower projects of the company located in J&K.

Regulated tariff ensures stable returns - Tariffs for hydropower projects of NHPC are determined as per Central Electricity Regulatory Commission (CERC) regulations for tariff determination on 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 and have been notified for the period FY2020-24 on March 07, 2019. The tariff norms are largely in line with norms for FY2014-19 with return on equity at 15.50% (pre-tax), higher operation and maintenance expenses, lower escalation for O&M expenses etc. The recovery of fixed cost is subject to normative plant availability for each plant, as notified by CERC. NHPC has demonstrated satisfactory operational performance in the past.

Satisfactory operational performance - NHPC has demonstrated satisfactory operational performance as evident from plant availability of 83.4% in FY2017, 85.32% in FY2018, 84.84% in FY2019 and 90.97% in Q1 FY2020 for its operational hydel-based power plants. The total generation in FY2018 and FY2019 was 22,973 million units and 24,410 million units respectively.

Comfortable financial risk profile - The financial risk profile of NHPC remained comfortable, as evident from gearing of 0.65 times (standalone) as on March 31, 2019. The interest coverage ratio remained high at 5.01 times in FY2019. The company had healthy cash and bank balance of Rs. 391 crore as on March 31, 2019.

Measures to promoter hydro power sector by Ministry of Power are a positive for the company- Ministry of Power vide its notification dated March 08, 2019 has announced several measures for promotion of hydro power sector in the country namely declaration of large hydro power projects (>25 MW) as renewable energy source, hydro purchase obligation as separate entity within non-solar renewable purchase obligation, tariff rationalization measures like back loading of tariff by considering escalation of 2% per annum, increase in life of project from 35 years to 40 years, increasing debt repayment period to 18 years, budgetary support for flood moderation/ storage hydro electric projects and budgetary support to cost of enabling infrastructure i.e. roads/ bridges are a positive for the company.

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.

Credit challenges

Counterparty credit risk - NHPC is exposed to state electricity distribution utilities/boards with relatively weak credit profile, which may impact its collection efficiency. Although the collection efficiency deteriorated in FY2019 and Q1 FY2020 due to delay in payments from counter parties, the same is expected to improve going forward. The presence of

letter of credit equal to 1.05 times of average monthly billing as per terms of PPA mitigates the counter party credit risk to some extent. Moreover, the tripartite mechanism between the GoI, state governments and the Reserve Bank of India to ensure payment security mechanism for supply agreements between Central PSUs such as NHPC and state discoms for supply of power, which was valid till October 2016, has been further extended by 29 states as on June 30, 2019 while the signing is in progress with other states.

Execution risk for under-construction projects - NHPC is constructing two hydroelectric projects namely Parbati II and Subansiri Lower on standalone basis with total capacity of 2800 MW. The projects are relatively bigger than the projects executed by NHPC in the past. Parbati II (800 MW) is expected to be commissioned in Q3 FY2022. Subansiri Lower (2000 MW), which was stuck since December 2011, has been cleared by NGT and MoU has been signed with Government of Assam for the project. Lanco Teesta (500 MW) project is expected to be commissioned within 5 years while Dibang hydro power project (2880 MW) is in initial stages. Timely completion of the under construction projects without material cost and time overrun will remain a key rating sensitivity.

Cost competitiveness of 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 as compared to thermal power projects and the recently discovered tariffs in wind/solar bidding. Therefore, the ability of the company to complete the projects on time and within the budgeted cost, and rationalisation in tariff through various measures will be critical to ensure cost competitiveness of power. It may be noted that hydropower is required for grid stabilisation and hence it can demand a premium over other sources of power. Moreover, recent measures by Ministry of Power are expected to increase the demand of power from hydro power projects.

Liquidity position: Strong

Liquidity of the company is **Strong**. In FY2019, the company demonstrated satisfactory generation of 24,410 Mus and plant availability of 84.84% resulting in operating income of Rs 8,161 crore and profit after tax of Rs 2,631 crore. In Q1 FY2020, the company demonstrated satisfactory generation of 8485 Mus and plant availability of 90.97% resulting in operating income of Rs 2421 crore and profit after tax of Rs 881 crore. Total receivables on account of sale of energy increased to Rs 2,623 crore as on March 31, 2019 as against 1097 crore as on March 31, 2018. Trade receivable on account of sale of energy remained high at Rs 3262 crore as on June 30, 2019 as against 1811 crore as on June 30, 2018 on account of delay in payment from state distribution utilities and higher generation in Q1 of year due to seasonality in generation of hydel power projects. The company had cash and bank balances of Rs 391 crore as on March 31, 2019 and Rs 297 crore as on June 30, 2019. The company had long term debt repayments of Rs 1605 crore in FY2020. Considering the satisfactory generation track record of the projects of the company, the accruals from operations from expected to be sufficient to meet the debt repayment obligations of the company in near future.

Rating sensitivities

Positive triggers –Not Applicable

Negative triggers – Inability to decrease collectable debtor levels from current levels and significant disapproval for cost and time overrun for under construction projects by CERC/SERC

Analytical approach

Analytical Approach	Comments
Applicable Rating Methodologies	Corporate Credit Rating Methodology
Parent/Group Support	The rating derive strength from NHPC's majority ownership by the Government of India (73.33% as on June 30, 2019) and its role in hydro power sector in India
Consolidation/Standalone	The rating is based on standalone financial statements of the company

About the company

NHPC, a Mini Ratna category I public sector utility, is the flagship hydroelectric generation company promoted by the GoI. As on June 30, 2019, the shareholding of GoI in the company was 73.33%. The company is the largest HEP developer in India with an installed capacity of 5,551 MW on standalone basis and 7,071 MW (including 1,520 MW of its 51%-owned subsidiary NHDC) as on June 30, 2019. The company supplies power to distribution companies/state electricity boards, mainly in northern, eastern and north-eastern India under terms of long-term PPAs signed.

On standalone basis, NHPC reported PAT of Rs 2,631 crore on operating income (OI) of Rs 8,161 crore in FY2019 as against PAT of Rs. 2,769 crore on OI of Rs. 6,938 crore in FY2018 (restated numbers for FY2018 as per annual report of FY2019). NHPC reported a PAT of Rs 881 crore on OI of Rs 2,421 in Q1 FY2020 as against PAT of Rs 738 crore on OI of Rs 2,138 crore in Q1 FY2019.

Key financial indicators (audited)

	FY2018*	FY2019
Operating Income (Rs. crore)	6,938	8,161
PAT (Rs. crore)	2,769	2,631
OPBDIT/OI (%)	53.6%	54.9%
RoCE (%)	12.7%	13.8%
Total Outside Liabilities/Tangible Net Worth (times)	0.96	1.04
Total Debt/OPBDIT (times)	5.01	4.25
Interest Coverage (times)	4.03	5.01
DSCR	1.57	2.24

*Restated numbers as per annual report of FY2019

Status of non-cooperation with previous CRA: Not applicable

Any other information: None

Rating history for past three years

	Instrument	Rating (FY2020)					Rating History for the Past 3 Years					
		Type	Amount Rated	Amount Outstanding as on September 30, 2019	Current Rating	Earlier Rating	FY2019		FY2018		FY2017	
					30-Sep-2019	23-Apr-2019	14-Dec-2018	29-Mar-2018	11-Sep-2017	24-Mar-2017	08-Apr-2016	
1	Long term bonds programme*	Long Term	2500.00	-	[ICRA]AAA (Stable)							
2	Long term bonds programme	Long Term	6250.00	4,599.47	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)

Amount in Rs. Crore

*Proposed bond issue

Complexity level of the rated instrument

ICRA has classified various instruments based on their complexity as "Simple", "Complex" and "Highly Complex". The classification of instruments according to their complexity levels is available on the website www.icra.in

Annexure-1: Instrument details

ISIN No	Instrument Name	Date of Issuance / Sanction	Coupon Rate	Maturity Date	Amount Rated (Rs. crore)	Current Rating and Outlook
INE848E07096	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-20	105.5	[ICRA]AAA (Stable)
INE848E07104	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-21	105.5	[ICRA]AAA (Stable)
INE848E07112	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-22	105.5	[ICRA]AAA (Stable)
INE848E07120	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-23	105.5	[ICRA]AAA (Stable)
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)
INE848E07229	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-20	6.85	[ICRA]AAA (Stable)
INE848E07237	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-21	6.85	[ICRA]AAA (Stable)
INE848E07245	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-22	6.85	[ICRA]AAA (Stable)
INE848E07252	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-23	6.85	[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)
INE848E07310	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-20	31.84	[ICRA]AAA (Stable)
INE848E07328	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-21	31.84	[ICRA]AAA (Stable)
INE848E07336	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-22	31.84	[ICRA]AAA (Stable)
INE848E07344	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-23	31.84	[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)
INE848E07401	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-20	89.2	[ICRA]AAA (Stable)
INE848E07419	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-21	89.2	[ICRA]AAA (Stable)
INE848E07427	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-22	89.2	[ICRA]AAA (Stable)
INE848E07435	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-23	89.2	[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-	11-Feb-13	8.78%	11-Feb-25	89.2	[ICRA]AAA (Stable)

Tranche 3						
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)
INE848E07AF2	LT Bonds- W1 Series	15-Sep-17	6.91%	15-Sep-20	300	[ICRA]AAA (Stable)
INE848E07AG0	LT Bonds- W1 Series	15-Sep-17	6.91%	15-Sep-21	300	[ICRA]AAA (Stable)
INE848E07AH8	LT Bonds- W1 Series	15-Sep-17	6.91%	15-Sep-22	300	[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)
INE848E07ALO	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)
	Long term bonds programme	-	-	-	2500.00*	[ICRA]AAA (Stable)

**Proposed bond issue*

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