September 11, 2017

NHPC Limited

Summary of rated instruments

Instrument*	Rated Amount (Rs. crore)	Rating Action
LT Bonds programme	2250.00	[ICRA] AAA (Stable); Assigned
LT Bonds programme	4000.00	[ICRA]AAA (Stable); Outstanding
Total	**6250.00**	

*Instrument details are provided in Annexure-1

Rating action

ICRA has assigned a long-term rating of [ICRA]AAA (pronounced ICRA triple A) to the Rs. 2250.00-crore[1] long term bonds programme of NHPC Limited (NHPC or the company)[2]. ICRA has outstanding long-term rating of [ICRA]AAA for the Rs 4000.00 crore long term bonds programme of NHPC. The outlook on the long-term rating is 'stable'.

Rationale

ICRA's AAA rating for NHPC reflects its established position in the hydro power generation industry in India, its significant size of operating projects and strategic importance to the GoI which is also reflected in the consistent support from 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 3.56/kwh in FY 2017 (adjusted for previous year sales and free power to home state) and strong operating efficiencies, as reflected by average plant availability factor (PAF) of 82.7% in FY 2017 (against normative availability of 77.80%). Further with the commissioning of two units of TLDP-IV in FY2016 and remaining two units during H1 FY2017 and 50 MW wind power project during Q3 FY2017, there is visibility on increase in revenue and profit streams. The rating continues to reflect low business risks arising out of cost plus tariff mechanism applicable for its hydel based power generating stations and favourable demand outlook in view of the power deficit scenario in the states which comprise majority of billing of the company although energy and peak deficit has declined over the past 2-3 years. Further, the rating continues to factor in the healthy track record of power generation from operational hydel based power projects arising out of favourable hydrology of the rivers on which these projects are located and ability 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. The credit profile is also supported by a conservative capital structure and strong liquidity despite the large size of projects under construction as reflected in a debt equity ratio of 0.71 times (standalone basis) as on March 31, 2017 (which is very low in relation to the capital intensive nature of its business), healthy cash position of over Rs 1533 crore as on March 31, 2017 and long tenure of debt including sub ordinate debt from Government of India at low interest rate for some projects in J&K. The net-worth of the company declined in FY2017 on account of buy back of 81.13 crore shares at a price of Rs 32.25/- per share for aggregate consideration of Rs 2616.59 crore. However, the buyback is not expected to have significant impact on the capital structure of the company going forward.

ICRA however takes cognisance of the execution risks, including risks of cost and time overruns, inherent in greenfield hydro power projects. Several of NHPC's recent and ongoing hydro power projects have seen significant cost and time overruns and further overruns cannot be ruled out for one of the projects

[1] *100 lakh = 1 crore = 10 million*

[2] *For complete rating scale and definitions, please refer to ICRA's website www.icra.in or other ICRA Rating Publications*

under implementation, namely the Lower Subansiri HEP (2000 MW) in Arunachal Pradesh (progress has been stalled since Dec 2011 due to local agitation). Remaining two projects under construction namely Kishanganga (330 MW) and Parbati-II (800 MW) are expected to be commissioned in FY2018 and FY2019 respectively. Nonetheless, power purchase agreements are signed for these projects at tariff to be determined by CERC on cost plus basis and thus, off-take risk is mitigated. Presence of LC as per terms of PPA and extension of Tripartite Agreement with 26 states (as on June 30, 2017) beyond October 31, 2016 for payment security will help in sustainability of timely collection in future. Nevertheless, improvement in financial and operational profile of state distribution utilities through schemes like UDAY are imperative for reducing counter party credit risk for generation entities like NHPC.

Going forward, NHPC's ability to complete projects without further time and cost overrun, maintain tariff competitiveness and healthy collections would remain key sensitivities.

Key rating drivers

Credit strengths

- **Sovereign ownership and strategic importance of NHPC to GoI-** NHPC is the largest hydro power company in the country and a Mini Ratna Category I public sector undertaking. 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 long term loans extended by Government of India at concessional rates for some hydro power projects of the company located in J&K.

- **Grid balancing role of hydro-** With Government of India's present initiative for extensive renewable energy development particularly large scale deployment of solar power, hydro power would be required for grid balancing/ stability.

- **Regulated tariff ensures stable returns-** Tariffs for hydro power projects of NHPC are determined as per CERC regulations for tariff determination on cost plus basis which ensures recovery of depreciation, interest on long term loan, interest on working capital loan, return on equity and operation and maintenance expenses. 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. Moreover, exemption to hydro power projects from competitive bidding till 2022 will ensure regulated tariff for under construction projects of NHPC

- **Satisfactory operational performance-** NHPC has demonstrated satisfactory operational performance as evident from plant availability of 82.7% in FY2017 as against normative plant availability of 77.8% for its operational hydel based power plants. The total generation in FY2017 was marginally lower by 1.7% on y-o-y basis at 23,275 million units due to hydrological factors. Moreover, the company commissioned two units of 40 MW each of TLDP-IV and 50 MW wind power project in FY2017 which is expected to increase generation in future

- **Comfortable financial risk profile-** The financial risk profile of NHPC remained comfortable as evident from the gearing of 0.71 times (standalone) as on March 31, 2017. The interest coverage ratio remained high at 5.59 times in FY2017. The company had healthy cash and bank balance of Rs 1,533 crore as on March 31, 2017

Credit weaknesses

- **Counter party credit risk-** NHPC has exposure to state electricity distribution utilities/ boards with relatively weak credit profile which may impact the collection efficiency. However, the company has witnessed improvement in collections in past years on account of UDAY scheme by Government of

India. Moreover, Tripartite mechanism between Government of India, state governments and 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 26 states as on June 30, 2017 while signing is in progress with other states

- **Execution risk for under construction projects-** NHPC is engaged in the construction of 3 hydroelectric projects with total capacity of 3130 MW. Two of the projects namely Parbati II and Subansiri are relatively bigger in relation to projects executed by NHPC in the past. Kishanganga and Parbati II are expected to be commissioned in FY2018 and FY2019 respectively. However, Subansiri has been stuck since December 2011 due to agitation by locals and NGT order. Timely completion of the projects without further cost and time overrun shall 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 recently discovered tariffs in wind/solar bidding. Hence ability of the company to complete the projects on timely basis within budgeted cost and rationalization in tariff through various measures will be critical to ensure cost competitiveness of power. It may be noted that hydro power is required for grid stabilization and hence it can demand a premium over other sources of power

- **Regulatory Risk due to cost plus regime-** The tariff for hydel based power projects of the company are determined as per CERC norms which are revised every 5 years. In case stringent norms are finalized in future (eg lower return on equity), it may impact the profitability of the company.

Analytical approach: For arriving at the ratings, ICRA has applied its rating methodologies as indicated below**.**

Links to applicable criteria:
Corporate Credit Rating Methodology

About the company:
NHPC, a Mini Ratna category I public sector utility, is the flagship hydroelectric generation company promoted by the Government of India. The company is the largest hydro electric plant (HEP) developer in India and was incorporated in 1975. It has since grown to become the largest hydro electric generating utility in the country with an installed capacity of 6691 MW (including 1520 MW of its 51% owned subsidiary NHDC) as on June 30, 2017. The company supplies power to distribution companies/state electricity boards located mainly in Northern, Eastern and North Eastern India under terms of long-term PPAs signed with them.

NHPC reported a PAT of Rs. 2796 crores on operating income of Rs. 7271 crores for FY 2017 as against PAT of Rs 2430 on operating income of Rs 7353 for FY2016.

Key Financial Indicators (Audited)

	FY2016	FY2017
Operating Income (Rs. crore)	7353	7271
PAT (Rs. crore)	2430	2796
OPBDIT/ OI (%)	58.4%	54.4%
RoCE (%)	11.8%	13.4%
Total Debt/ TNW (times)	0.67	0.71
Total Debt/ OPBDIT (times)	4.64	4.86
Interest coverage (times)	6.35	5.59
NWC/ OI (%)	-3.1%	-9.0%

OI: Operating Income; PAT: Profit after Tax; OPBDIT: Operating Profit before Depreciation, Interest, Taxes and Amortisation; ROCE: PBIT/Avg (Total Debt + Tangible Net-Worth + Deferred Tax Liability - Capital Work - in Progress);
NWC: Net Working Capital

Status of non-cooperation with previous CRA: Not applicable

Any other information: Not applicable

Rating history for last three years:

Table:

S. No.	Instrument	Current Rating (FY2018)			Chronology of Rating History for the past 3 years		
		Type	Amount Rated (Rs. crore)	Date & Rating	Date & Rating in FY2017	Date & Rating in FY2016	Date & Rating in FY2015
				Sep 2017	Mar 2017	April 2016	Jan 2015
1	LT Bonds Programme	Long Term	2250.00	[ICRA]AAA (Stable)	-	-	-
2	LT Bonds Programme	Long Term	4000.00	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)	[ICRA]AAA (Stable)

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	Date of Issuance	Coupon Rate	Maturity Date	Size of Issue (Rs. crore)	Current Rating and Outlook
INE848E07070,INE848E07088, INE848E07096,INE848E07104, INE848E07112,INE848E07120, INE848E07138,INE848E07146, INE848E07153,INE848E07161	LT Bonds- Q Series	12 Mar 2012	9.25%	12 Mar 2027	1266.00	[ICRA]AAA (Stable)
INE848E07203,INE848E07211, INE848E07229,INE848E07237, INE848E07245,INE848E07252, INE848E07260,INE848E07492, INE848E07500	LT Bonds- R Series- Tranche 1	11 Feb 2013	8.70%	11 Feb 2026	82.20	[ICRA]AAA (Stable)
INE848E07294,INE848E07302, INE848E07310,INE848E07328, INE848E07336,INE848E07344, INE848E07351,INE848E07369, INE848E07377,INE848E07385	LT Bonds- R Series- Tranche 2	11 Feb 2013	8.85%	11 Feb 2027	382.08	[ICRA]AAA (Stable)
INE848E07393,INE848E07401, INE848E07419,INE848E07427, INE848E07435,INE848E07443, INE848E07450,INE848E07468, INE848E07476,INE848E07484	LT Bonds- R Series- Tranche 3	11 Feb 2013	8.78%	11 Feb 2028	892.00	[ICRA]AAA (Stable)
INE848E07518	Tax Free Bonds-13-1A	02 Nov 2013	8.18%	02 Nov 2023	50.81	[ICRA]AAA (Stable)
INE848E07542	Tax Free Bonds-13-1B	02 Nov 2013	8.43%	02 Nov 2023	60.77	[ICRA]AAA (Stable)
INE848E07526	Tax Free Bonds-13-2A	02 Nov 2013	8.54%	02 Nov 2028	213.12	[ICRA]AAA (Stable)
INE848E07559	Tax Free Bonds-13-2B	02 Nov 2013	8.79%	02 Nov 2028	85.61	[ICRA]AAA (Stable)
INE848E07534	Tax Free Bonds-13-3A	02 Nov 2013	8.67%	02 Nov 2033	336.07	[ICRA]AAA (Stable)
INE848E07567	Tax Free Bonds-13-3B	02 Nov 2013	8.92%	02 Nov 2033	253.62	[ICRA]AAA (Stable)
-	Long term bonds programme*	-	-	-	2250.00	[ICRA]AAA (Stable)

*Bonds to be issued
Source: NHPC Limited

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About ICRA Limited:
ICRA Limited was set up in 1991 by leading financial/investment institutions, commercial banks and financial services companies as an independent and professional investment Information and Credit Rating Agency.
Today, ICRA and its subsidiaries together form the ICRA Group of Companies (Group ICRA). ICRA is a Public Limited Company, with its shares listed on the Bombay Stock Exchange and the National Stock Exchange. The international Credit Rating Agency Moody's Investors Service is ICRA's largest shareholder.
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