ICRA NEPAL

River Side Hydro Energy Limited: [ICRANP] LB+/A4 assigned

January 08, 2024

Summary of rating action

Instrument* (Amounts in NPR million)	Rated amount	Rating action
Long-term loan limits	5,180	[ICRANP] LB+; assigned
Short-term loan limits (within term loan limit)	(2,105)	[ICRANP] A4; assigned
Total	**5,180**	

** Instrument details are provided in Annexure-1*

Rating action

ICRA Nepal has assigned a long-term rating of [ICRANP] LB+ (pronounced ICRA NP L B plus) to the long-term loans of River Side Hydro Energy Limited (the company) and a short-term rating of [ICRANP] A4 (pronounced ICRA NP A four) to its short-term loans.

Rationale

The ratings are mainly constrained by high project execution risks for the company's under-construction 37.52-megawatt (MW) Tamor Khola-5 Hydropower Project due to its nascent development stage (financial progress of ~5% until mid-November 2023), while the project's required commercial operation date (RCOD) is July 23, 2025. These concerns are further accentuated by the presence of a ~1.8-kilometre (km) long headrace tunnel structure, which could potentially impact the project's cost and timeline estimates in case of adverse geological events. The ratings also remain subdued by the high evacuation risks for the project, given that the proposed connection point, i.e. the Hangpang Substation, is also in the under-construction stage. While the project's initial cost estimates were moderate (~NPR 184 million per MW), the recently revised cost estimates (factoring in major design changes and increased input prices in the interim) remain much higher (~NPR 216 million per MW). Any unexpected time and cost overruns could further impact the company's return and coverage metrics. The ratings further remain constrained by the funding risks for the cost escalation part (both debt and equity wise), while ~44% of total equity requirements, as per initial cost estimates, were injected as of mid-July 2023. The assigned ratings also remain subdued by the stringent short-supply penalty clause in the power purchase agreement (PPA) regarding minimum required dry energy, which can impact the company's revenue profile in case of weak hydrology. The rating concerns on hydrological risks are accentuated considering the absence of a deemed generation clause in the PPA. Further, the ratings also take note of the interest rate volatility, natural calamities and single-project concentration risk for the company.

Nonetheless, the ratings factor in the prior experience of the promoters/directors in executing hydropower projects. ICRA Nepal also takes comfort from the project's long-term PPA at predetermined tariffs and escalations under the take-or-pay modality, eliminating the tariff and offtake risks for the project. Going forward, the company's ability to manage the funding gaps and commission the project within its budgeted cost and estimated timelines will remain the key rating sensitivities.

Key rating drivers

Credit strengths

Experienced promoters – The company's board of directors and the management team have prior experience in hydropower project development and operations (including Super Madi Hydropower Limited rated at [ICRANP-IR] BB-, among others), which remain a positive factor. Such prior experiences are expected to aid the company during the construction and operational stages of the project.

Low tariff and offtake risks – The project's tariff and offtake risks remain low as the company has a long-term PPA with the Nepal Electricity Authority (NEA; the sole purchaser and distributor of electricity in Nepal) for 37.52 MW (against the now proposed installed capacity of 37.5 MW). The pre-defined tariff rates are NPR 4.8 per kWh for the wet season (June to November) and NPR 8.4 per kWh for the dry season. Additionally, there is a 3% annual escalation clause on the base tariffs, for a total of eight times, provided that the project commences operations within six months of RCOD (thereafter, one tariff escalation will be lost for every successive year of delay).

Credit challenges

High project execution risk – The 37.52-MW project is in its nascent construction stage with ~5% financial progress until mid-November 2023 (based on initial cost estimates), mostly towards access road development and construction of onsite camps. The project's execution risk is accentuated by the presence of a ~1.8 km long headrace tunnel structure (~2.5 km as per the recently revised project design, which is subject to the approval of NEA), wherein adverse geological events could impede the execution pace, impacting the project costs. While the company had been already awarded the construction contract for civil works in October 2023, major site mobilisation is yet to start and the finalisation of contract agreements for other major segments is still pending. The rating concerns owing to the execution risks are further accentuated by the project's approaching RCOD of July 23, 2025, especially considering the minimal physical progress achieved thus far. Going forward, the extent of the RCOD extension, if any, by the NEA and the company's ability to expedite the project progress would have a bearing on factors such as late COD penalty, tariff escalation losses and others. Such considerations will ultimately determine its return metrics.

High evacuation risk – The evacuation risk for the project remains on the higher side given the NEA's under-construction evacuation structure, i.e. the Hangpang (Dhungesanghu) Substation in the Taplejung district. Timely commissioning of the evacuation structures before the project's RCOD will remain essential for the project's operational and financial profile. While the project is exploring alternative evacuation arrangements to lower the evacuation risks, concrete developments in this regard are yet to be achieved.

Moderate funding risks – The project was initially planned to be developed at a cost of ~NPR 6,911 million at a debt-equity ratio of ~75:25. Based on the same, the required debt component had already been tied up in full and ~44% (NPR 770 million) of the overall equity requirement of ~NPR 1,731 million was injected by the promoters until mid-July 2023. However, the project is now estimated to be developed at a revised cost of NPR 8,095 million, mainly owing to the design changes and inflationary impact on project cost metrics. This revision has led to a funding gap in both equity as well as debt components. While the current rate of equity infusion by the promoters aligns with the project's progress, ensuring a timely injection of the required equity and closing the debt-funding gap will remain essential to avoid any delays in project development.

Relatively high project cost – Initially projected at ~NPR 6,911 million, the project cost has now been revised to NPR 8,095 million. Consequently, leading to a high project cost of ~NPR 216 million per MW. Typically, hydropower projects in Nepal are located in difficult terrain and witness unanticipated delays owing to several factors, generally leading to cost overrun. Such unexpected time and cost overruns could further impact the return and coverage metrics for the company, given the fixed tariff structure.

High hydrological risks given the lack of deemed generation clause in the PPA – The lack of a deemed generation clause in the PPA exposes the project to high hydrological risks in case of any adverse river flow scenario without receiving any compensation for such losses from the NEA. Should the project fail to deliver a minimum of 30% annual energy during the dry months, the energy delivered during that period will be considered as 30% of the energy supplied. Additionally, no payment will be made for any excess energy supplied in the wet season. This could be detrimental to the company's revenue profile in case of weak dry-season hydrology. However, the revised project parameters offer some cushion in terms of dry energy mix (~33% as against borderline 30% as per PPA), which along with the partial snow-fed nature of the source river provides some comfort.

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

Link to the applicable criteria:
Corporate Credit Rating Methodology

About the company

Incorporated on July 16, 2017 as a private limited company, River Side Hydro Energy Limited was converted to a public limited status on July 13, 2023, to facilitate public participation. The company's paid-up capital was ~NPR 770 million (including share application money of NPR 197 million) as of mid-July 2023. As on the same date, the major promoters were Mr. Pushpa Jyoti Dhungana (~37% stake) and Mr. Durga Prasad Upreti (~8%), among others.

The company is developing a run-of-the-river project viz. Tamor Khola-5 Hydropower Project with the PPA capacity of 37.52 MW, in the Taplejung district of Koshi Province in Nepal. The project's PPA is based on a 44.34% probability of exceedance (PoE) model, for which the design discharge is 55 m^3/sec, with a gross head of ~80 metres. At ~67% contract plant load factor (PLF), the annual saleable energy would be ~219 GWh with the annual dry energy mix of 30.08%. The project had been planned to be developed at a total cost of ~NPR 6,911 million, which was planned to be funded in a debt-to-equity ratio of ~75:25. However, the company has now finalised multiple revisions in project structure/features, including the lower design discharge, higher PoE, increased gross head, longer tunnel structure, higher annual energy/dry energy mix etc, which is subject to approval by the NEA. The revised design is expected to be completed at the latest estimates of NPR 8,095 million.

Annexure-1: Instrument details

Instrument* (Amounts in NPR million)	Rated amount	Rating action
Long-term loan limits (A)	**5,180**	[ICRANP] LB+; assigned
Fund-based facilities; Term loan	5,180	
Short-term loan limits (B)	**(2,105)**	[ICRANP] A4; assigned
Non-fund-based facilities; Letter of credit (within term loan)	(1,525)	
Non-fund-based facilities; Bank guarantee (within term loan)	(80)	
Fund-based facilities; Bridge gap loan (within term loan)	(500)	
Total limits (A+B)	**5,180**	

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About ICRA Nepal Limited

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