

## Upper Tamakoshi Hydropower Limited: [ICRANP-IR] BB assigned

November 23, 2022

### Summary of rating action

Instrument	Rated Amount	Rating Action
Issuer Rating	NA	[ICRANP-IR] BB; assigned

### Rating action

ICRA Nepal has assigned an issuer rating of [ICRANP-IR] BB (pronounced ICRA NP issuer rating double B) to Upper Tamakoshi Hydropower Limited (Upper/the company). Issuers with this rating are considered to have moderate risk of default regarding timely servicing of financial obligations. The sign of + (plus) or – (minus) appended to the rating symbol indicates the entity’s relative position within the rating categories concerned. The rating is only an opinion on the general creditworthiness of the rated entity and not specific to any debt instrument.

### Rationale

The rating assigned to Upper [an SPV that owns and operates the 456-MW peaking run of the river (PROR) project] considers its sovereign ownership by the Government of Nepal (GoN) (through various Government-owned entities including the Nepal Electricity Authority rated [ICRANP-IR] AA+). Other promoters include Government-owned telecom company, retirement fund and insurance companies, which have also acted as lenders for Upper (financing ~64% of the project debt). This offers some flexibility in repayment terms for Upper. Similarly, presence of the NEA in the ownership profile also offers comfort to the development and operational aspects of the company. The rating also takes note of the under-development Rolwaling Khola HEP (includes standalone 20.66-MW project as well as water diversion to the catchment of 456-MW project) owned by Upper, which is expected to support the long-term revenue and profitability of the company. The rating also considers the strategic importance of the 456-MW project to the Government, especially from the energy-load management perspective for the nation. The assigned rating also factors in the good generation performance of the 456-MW project (92% of the contract energy generated in the trailing 12 months ending mid-October 2022, including 100% of contract energy generated during the dry season as per the PPA); albeit over a limited timeframe (project in full-fledged operation since September 10, 2021). The rating also takes note of the low tariff and offtake risks, given the presence of firm PPA under a take-or-pay modality at predetermined tariff and escalations. Additionally, the rating factors in the positive demand outlook for the energy sector, owing to the increasing energy demand in the nation and the improving prospects of cross-border power trade. The rating action also factors in the low evacuation risks for the project, given the presence of the NEA’s operational 100-MVA New Khimti substation in Ramechhap district (grid connection point for the project), which is connected through a 47-km long 220-kV transmission line from the project’s powerhouse.

Nonetheless, the rating is constrained by the high project cost<sup>1</sup>, relatively lower tariff rates<sup>2</sup> and limited project life (~25 years on account of delayed commissioning and capped by the validity of energy generation license), which are likely to suppress the company’s return indicators and coverage ratios. The rating also considers the inherent project execution risk for the under-construction 20.66-MW project, given the nascent stage of the project. The 20.66-MW project is expected to be commissioned using the company’s internal cash accruals and proposed rights issue; which remains to be seen; given the company’s moderate cash accruals and sizeable short-term loans/creditor payables in the balance sheet. The rating also remains constrained by the high gearing levels (amid high debt and negative net worth; D:E mix of 88:12) and the liquidity challenges, which can stretch the ability to timely service the debt obligations. Given the company’s ballooning repayment schedule of the project loans, the ability of Upper to improve its revenue profile when the larger instalments fall due, remains to be seen. Rating concerns also arise from hydrology-related risks such as short-supply penalty clauses and absence of a

<sup>1</sup> Completed at a cost of NPR 56,056 million (excluding the IDC of NPR 33,364 million) vs budgeted cost of NPR 35,294 million (excluding the IDC)

<sup>2</sup> NPR 3.63 and NPR 6.96 for wet and dry season respectively vs. current standard tariff of NPR 4.80 and NPR 8.40 respectively offered to the private sector developers; the rates are eligible for 3% escalation on successive tariff for 9 years; no differential tariff despite being a PROR project.

deemed generation clause in the power purchase agreement (PPA). However, the snow-fed origin of the river, its adequate hydrology and PROR nature of the project, reduce these risks to an extent.

Going forward, Upper's ability to timely complete the rights proceeds and utilise the same as per the plans, commission the 20.66-MW Rolwaling HEP within the budgeted cost/timeline, achieve its designed operating parameters, as well as interest rate volatility in the market, will be the key rating drivers for the company.

## Key rating drivers

### Credit strengths

**Sovereign ownership and strategic importance to Government** – Upper is a public limited company incorporated in March 2007 by its promoters viz. Nepal Electricity Authority (NEA) (a Government-owned sole power purchaser and distributor in Nepal (rated at [ICRANP-IR] AA+), Nepal Doorsanchar Co. Ltd. (a Government-owned telecom company), Rastriya Beema Sansthan (a Government-owned life insurer) and Citizens Investment Trust (a Government-owned retirement-fund operator, rated at [ICRANP-IR] A+). The board of directors and the management team of Upper have extensive experience in the hydropower sector, which is reflected from their long association with the NEA/engagements with various other projects as lenders.

Upper owns and operates Nepal's largest operational hydropower project (PROR type) and, therefore, holds a strategic importance in the country's energy-load management. Although higher capital cost of the 456-MW project and its low PPA tariff rates have muted the project's standalone profitability indicators, the same have benefitted the NEA, that purchases Upper's entire energy at relatively lower cost. The commissioning of Upper's project has supported the NEA's ability to achieve grid stability, to a large extent. The commissioning of the 456-MW project has also benefitted the NEA through cheaper purchase rates, which, coupled with the improving energy export prospects, has benefitted the NEA's financial numbers to some extent. This strategic importance of the project to the country's energy-load management and its importance to the NEA, remain rating positives.

**Good generation performance** – The project was partially operational from August 20, 2021 (four units) and full-fledgedly operational from September 10, 2021 (all six units). In the last twelve months ending mid-October 2022, the project generated ~92% of the contract energy, including ~100% contract energy generation during the dry season as per the PPA. Given the snow-fed origin as well as PROR nature of the project, the generation output is expected to remain good, going forward.

**Lower evacuation risk and Low tariff and offtake risks** – The evacuation risk for the project remains low, given the presence of the NEA's operational 100-MVA New Khimti substation in Ramechhap district. The company is delivering the energy to the said substation through a ~47-km long 220-kV double circuit transmission line from its powerhouse.

Upper has entered a PPA with the NEA for its entire project capacity at predefined tariffs for the purchase of energy i.e., tariff for the wet season (mid April – mid December) is NPR 3.63 per kWh, while that for the dry season is NPR 6.96 per kWh. For the PPA rates, escalation allowed is 3% per annum on the successive tariff for nine consecutive years after COD; thus, with the COD of August 20, 2022, the rates will be fully escalated after FY2031 to NPR 4.74 per kWh for the wet season and to NPR 6.96 per kWh for the dry season and these rates shall prevail till the remaining life of the project. With this, the tariff risks are minimal. Also, the offtake risks for the project are low, given the presence of the take-or-pay PPA for the entire energy. Also, given the increasing domestic consumption and the prospects of cross-country energy trade, the offtake of the energy is ensured for the medium to long term.

## Credit challenges

**Financial profile constrained by high cost and gearing along with low PPA tariff** – Originally budgeted at a cost of NPR 35,294 million (NPR 77 million/MW), the 456-MW project was completed at a cost of NPR 89,420 million (NPR 196 million/MW). The higher project cost was contributed by significantly stretched construction period amid factors such as earthquake, custom blockade, floods, landslides, Covid-19, etc. Significant time overruns led to substantial overruns in the interest-during-construction component (IDC accounted ~37% of the overall project cost) and cost of imported plant and machinery, due to unfavourable changes in exchange rates. With this, the project cost increased to NPR 196 million/MW despite the large size, limiting the benefits accruing from the economies of scale. At the same time, the project's PPA tariff rate remains lower than the recently commissioned projects (as the PPA was signed more than 15 years ago at a lower rate and was not revised). High capital cost and debt burden (given the debt-equity mix of 88:12), low tariffs and the limited project life of ~25 years, due to limitation of generation license (valid till December 3, 2045), have acted as a drag to the project's financial metrics including return indicators and coverage ratio of the company.

**Inherent project execution risks for 20.66-MW Rolwaling HEP** – Upper has planned to develop a run-of-river 20.66-MW Rolwaling Khola HEP in Dolkha district of Bagmati province of Nepal, at a budgeted cost of ~NPR 9.5 billion in a D:E ratio of 70:30. The project, which is a standalone as well as a diversion project (total energy of 318GWh; 102GWh-standalone(32%) and 216GWh-diversion to Upper's catchment (68%)) is in the nascent stage (PPA, generation license yet to be done) and, thus, is exposed to higher inherent project execution risks. The completion of the 20.66-MW project within the estimated timeframe and budgeted cost, could support the overall financial metrics for Upper. However, given the absence of PPA terms for the Rolwaling HEP and treatment of excess energy generated by Upper (after the diversion project), the benefits cannot be quantified yet.

**Exposure to forex risk, natural calamities, and interest rate volatility** - The operational 456-MW project as well as under-construction 20.66-MW project remain subjected to disruptions from natural calamities, interest rate volatility, and forex risk, given presence of forex component in the budgeted cost of the 20.66-MW project.

**High hydrological risk amid the lack of a 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. However, the snow-fed origin river and the good generations so far (although trend is yet to be seen), provide comfort to some extent in this front.

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

**Links to applicable criteria:**

[Corporate Credit Rating Methodology](#)

## About the company

Incorporated in March 2007 as a public limited company, Upper Tamakoshi Hydropower Limited (Upper) operates a 456-MW Upper Tamakoshi Hydroelectric Project in Dolkha district of Bagmati Province of Nepal. The paid-up capital of the company as of mid-July 2022 is NPR 10,590 million, which is 51% promoter held and 49% public held. As on same date, the major promoters include the Nepal Electricity Authority (NEA) (rated at [ICRANP-IR] AA+) with ~41% stake, Nepal Doorsanchar Co. Ltd. (NDCL/NTC) with ~6% stake, followed by Citizen Investment Trust (CIT) (rated at [ICRANP-IR] A+) (~2%) and Rastriya Beema Sanstha (~2%). All the major promoters of the company i.e., NEA, NTC, Rastriya Beema Sansthan and Citizen Investment Trust are all entities promoted by the Government of Nepal.

The 456-MW project owned by the company is the largest operational project of Nepal and is a peaking run of the river (PROR) type (four hours peaking capacity) and has been developed at a 32% probability of exceedance (Q32). The project started its full-fledged commercial operations from September 10, 2021 and was developed at a total cost of ~NPR 89,420 million (including IDC component of NPR 33,364 million), which was funded in a D:E ratio of 88:12 (equity of NPR 10,590

million and debt of NPR 78,830 million consisting of long-term debt of NPR 41,000 million, IDC of NPR 33,364 million and NPR 4,466 million of short-term loans). The project's total annual energy is 2,281GWh with a dry-energy mix of ~13%.

The company now proposes to develop a 20.66-MW Rolwaling Khola HEP in Dolkha district of Bagmati Province of Nepal, which is run-of-river type and is budgeted to be developed at a total cost of ~NPR 9.5 billion in a D:E ratio of 70:30. The project will include a standalone 20.66-MW project as well as diversion of water from the Rolwaling river to the catchment of the 456-MW project, with net energy addition of 318GWh, 102GWh-standalone(32%) and 216GWh-diversion(68%). However, the said project is in the nascent stage and the PPA is yet to be concluded.

## Key Financial Indicators

Amount in NPR million	FY2022
	Provisional
Operating Income (OI)	7,174
OPBDITA/OI (%)	94%
Total debt/Tangible net worth (TNW; times)	10.13
Total Outside Liability/TNW (times)	10.46
Total Debt/OPBDITA (times)	11.82
Interest coverage (times)	1.19
DSCR (times)	1.06
NWC/OI (%)	28%

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## About ICRA Nepal Limited

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