

## Chhyangdi Hydropower Limited

### ICRA Nepal assigns [ICRANP] IPO Grade 4 to the proposed initial public offering (IPO) of Chhyangdi Hydropower Limited

Instrument/Facility	Issue Size	Grading Action (March 2017)
IPO (equity) Grading	NPR 54 million	[ICRANP] IPO Grade 4 (Assigned)

ICRA Nepal has assigned an “[ICRANP] IPO Grade 4”, indicating below average fundamentals to the proposed Initial Public Offering (IPO) of Chhyangdi Hydropower Limited (CHL). ICRA Nepal assigns IPO grading on a scale of IPO Grade 1 through IPO Grade 5, with Grade 1 indicating strong fundamentals and Grade 5 indicating poor fundamentals. For the grading categories 2, 3 and 4, the sign of + (plus) appended to the grading symbols indicate their relative better position within the grading categories concerned. CHL has proposed to come out with an Initial Public Offer of 540,000 numbers of equity shares of face value NPR 100 to be issued to general public at par. The company has already floated the shares amounting to NPR 270 million to project affected population at par. A portion<sup>1</sup> of proceeds collected from these issues will be infused as equity towards the development of 4 MW Upper Chhandi Khola hydroelectric project (HEP) by CHL.

The assigned grading is constrained by weak financial profile of the company resulting from high development cost and moderate operational performance of 2 MW Chhandi Khola HEP. The company has developed and is operating the project since the commissioning in March 2016. During first 10 months of the operation, the project has operated at a plant load factor (PLF) of 57%<sup>2</sup>, generating (on an average) 83% of the contract energy leading to sizeable revenue losses. The project tariffs are fixed as per the regulated tariff and do not take into account the high project cost per MW of the project, hence the return potential remains low.

The company is now developing a 4 MW Upper Chhandi project utilising proceeds of proposed issue, upstream of the current project to generate scale economies and improve the overall returns for the company. However, these too will be limited relative to other projects as the project cost per MW although lower compared to the existing project of the company, is unlikely to be lower enough to generate healthy return. The proposed project is in early stages of development exposing the project to typical implementation risks such as increase in time and cost estimates. Off take risk, tariff risk and funding risk also remains high for the proposed project as the company is yet to conclude the power purchase agreement and finalise the funding source. Availability of sustainable and sufficient discharge also remains a concern (since the river is not gauged). The grading is further constrained by limited experience of the major promoter group in hydropower development and operation, the 2 MW project being the first. Counterparty credit risks arising out of exposure to Nepal Electricity Authority (NEA) for the energy supplied also remains a concern; although partly mitigated by the sovereign support of Nepal Government to the NEA. Going forward, ability of the company to develop the proposed project within the budgeted time and cost estimates and availability of sufficient hydrology will be the key parameters which can impact returns of the project.

Nonetheless, the grading is supported by promoter’s project execution ability demonstrated in the commissioning<sup>3</sup> of the 2 MW project. Presence of firm power purchase agreement (PPA) with NEA eliminates the tariff risk for 2 MW operational project. Power evacuation risk for the proposed project remains low due to the presence of transmission line, developed for the operational project.

CHL plans to develop Upper Chhandi HEP, a 4 MW run-of-the-river hydropower project along Chhandi river in Lamjung District of Western Nepal. The electricity generated from this project shall be connected to existing Udupur substation in Lamjung district, through the existing transmission line built for the power evacuation by 2MW project. CHL obtained survey license for the 4 MW project from Ministry of Energy in March 2016 and completed the feasibility study in August 2016. The company has applied to NEA for grid connection agreement. Power generation license and PPA are likely to follow the conclusion of grid connection agreement.

<sup>1</sup> Out of total IPO proceeds of NPR 81 million, 21 million is planned to be utilised towards repayment of short term loans; balance to be invested in project development.

<sup>2</sup> Vis-à-vis contract energy PLF of 61%.

<sup>3</sup> The project was commissioned with a delay of 7 months, due to difficulties created by 2015 Earthquake and subsequent blockade at the customs point.

The project cost for the 4 MW project is budgeted at NPR 760 million<sup>4</sup> with an estimated debt equity ratio of 70:30. The management plans to raise the equity required for the project through the proposed IPO and further rights issue in future. Bank loans are likely to be finalised after the conclusion of PPA. Since major portion of the fund requirement remains to be tied up, funding risk for the project remains high.

The proposed 4 MW project is a low-discharge-high-head project with design discharge of 0.67 m<sup>3</sup>/sec and gross head of 732 m. The scheme of the proposed project consists of 7 m long diversion weir, diverting the water through a 10 m long approach canal to single-bay desanding basin with dimensions 30mX2mX1.8m. ~2,850 m long steel headrace pipe and ~1,300 m steel penstock pipe will carry the water from settling basin to the surface powerhouse of Upper Chhandi HEP. The electricity at the powerhouse will be generated through 2X 2,150 KW horizontal axis pelton turbine and 2 generators with rated generation voltage of 6.6 KV which will be stepped up to 33 KV for transmission over a 2.5 km transmission line from the switchyard of the project to the switchyard of 2 MW Chhandi HEP downstream. The combined energy will then be evacuated through the existing 10 KM transmission line to Udipur Sub-station.

The contract for various works related to the proposed project is likely to follow the regulatory clearances and finalisation of funding source.

### **Company Profile**

Chhyangdi Hydropower Limited (CHL) was incorporated in September-2007 as a private limited company and subsequently converted into public limited company in July-2014 to facilitate public participation. As on mid-Jan 2017, CHL has diversified equity ownership profile comprising of 209 promoters including individuals/private investment companies. Major promoters of CHL include Mr. Uday Kumar Piya (8.73%), Mr. Amar Nath Shrestha (5.56%), Mr. Rameshwar Thapa (5.29%), Mr. Lal Bahadur Thapa (2.65%), etc. Post-IPO, the promoter public shareholding ration will be 70:30, assuming full subscription.

CHL has an operational 2 MW hydropower project- Chhandi Khola HEP in Lamjung District. The project was commissioned in March 2016 at a cost of NPR 443 million, financed by ~59% debt. Repayment of debt has begun from July 2016 in quarterly ballooning instalments for principal.

The company is developing 4 MW Uppper Chhandi HEP upstream of the operational project. The electricity generated by this project shall be connected to NEA's existing Udipur substation in Lamjung District. CHL has already received the survey license and has completed the feasibility study report for the proposed project. The company is in the process of preparing the Initial Environmental Impact (IEE) report and finalising the grid connection agreement with NEA, following which power generation license and PPA are expected to be finalised. The project is expected to be commissioned by mid-2019.

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<sup>4</sup> Estimate as per feasibility report is NPR 701 million; adjusted for probable overrun based on management discussion.