Rating Rationale

Greenlife Hydropower Limited

Rating

Facility/ Instrument	Amount	Rating[1]	Rating Action
Issuer Rating	NA	CARE-NP B+ (Is) [Single B Plus (Issuer)]	Assigned

**The issuer rating is subject to the company maintaining overall gearing not exceeding 3.50x at the end of FY21.*

CARE Ratings Nepal Limited (CRNL) has assigned 'CARE-NP B+ (Is)' rating to Greenlife Hydropower Limited (GLH). Issuers with this rating are considered to offer high risk of default regarding timely servicing of financial obligations, in Nepal.

Detailed Rationale & Key Rating Drivers

The ratings assigned to the bank facilities of GLH is constrained by promoter group having limited experience in hydropower sector, significant time and cost overrun leading to high cost of project, decrease in project life and low tariff rate for major part of contracted energy leading to low return from the project and project implementation & stabilization risk associated with the hydropower projects. The rating is also constrained by exposure to fluctuation in foreign currency exchange rate, exposure to volatile interest rate, hydrology risk associated with run of the river power generation and power evacuation risk. The rating, however, derives strength from financial closure achieved for the major portion of debt component and power purchase agreement (PPA) with sufficient period coverage, moderate counter party risk, current demand & supply gap however expected increase in supply in future and government support for the power sector.

Timely execution of the project within the new deadlines avoiding any further cost overrun and timely completion of Phase-II 15 MW project and Singati to Lamosangu transmission line to evacuate power generated from the project will be the key rating sensitivities.

Detailed Description of the Key Rating Drivers

Key Rating Weakness

Promoter group having limited experience in hydropower sector

Mrs. Yanchain Doma Lama, Greenlife Investment Company Ltd., Kanchanjanga Investment Company Ltd. and Mrs. Keshang Diki Lama are major promoter shareholder of the company who belongs to same family. The promoter group of the company have limited prior experience of executing power projects and the project under consideration is the first power project being developed by the group. GLH has total 6 board of directors chaired by Mrs. Yanchain Doma Lama, major promoter shareholder of GLH. Mr. Tenzin Jampe Lama, Managing Director, is associated manages day to day operation.

[1]*Complete definitions of the ratings assigned are available at www.careratingsnepal.com*

Significant time and cost overrun leading to high cost of project

The initial estimated cost of project is Rs 4,795 Mn (Rs 3,338 Mn for 25MW and Rs 1,457 Mn for 15MW) which has increased to Rs. 7,654 Mn (Rs. 6,196 Mn for 25MW and Rs. 1,457 Mn for 15 MW). The estimated cost per MW is high at Rs. 248 Mn for 25 MW and Rs. 97 Mn for 15 MW, with overall cost of Rs. 191 Mn per MW. Though the estimated project cost for 15MW has remained same, estimated cost has increased by 86% for 25MW. Estimated cost has increased multiple times on back of delay in completion of the project; increase in cost of electro mechanical works due to increase in foreign exchange rate and imposition of demurrage on import of equipment for project by custom office and increase in interest during construction due to delay in project completion. Further, the project has been impacted by COVID-19 with non availability of materials and labor resources leading to further delay in project completion. As per the management, all the infrastructure such as Headrace Tunnel, penstock etc. is constructed for 40MW even though generation capacity is 25MW in first phase and generation capacity will be upgraded to 40MW in second phase. Due to this cost of project per MW is high for 25MW and completion of 15MW is critical for the project which will reduce overall cost per MW of the project.

Construction work of the project started in 2010 with initial Required Commercial Operation date (RCOD) of the project was June 16, 2015 for 25MW and December 19, 2019 for additional 15MW. RCOD has been extended due to various reasons in the past.

Decrease in project life and low tariff rate for major part of contracted energy leading to low return from the project

Due to multiple delay in execution of the project, life of the project has been reduced. If the project comes into operation in Mid April, 2021 as expected by management, generation license which was obtained on May 11, 2011, would be valid for next ~25 years only, resulting in five year loss of revenue from project. Further, tariff rate for 25MW contracted capacity is low (i.e. Rs 4/7 per kWh for wet/dry season) in comparison to tariff rate for additional 15MW contracted capacity (i.e. Rs 4.8/8.4 per kWh for wet/dry season), due to which overall return from the project life is expected to be on a lower side.

Project implementation and stabilization risk

On the basis of cost incurred till Mid July, 2020, ~ 75% of total project work has been completed (i.e. out of total estimated cost of Rs 7,654 Mn, Rs 5,749 Mn cost incurred including Rs 313 Mn advance). As per the progress reported submitted by the company, till August 2020, major part of civil works in intake has been completed. Civil works of powerhouse is completed whereas switchyard related works are pending. Excavation of headworks is completed whereas headrace pipe laying work is inprogress with 350m completion whereas works related to electromechanical are pending. Project work related to 15MW (i.e. water diversion from Napke and Hanapu Khola) is not started yet. Any delay in the project completion of 15MW project will have significant impact on the credit profile of the company. Further, as per loan agreement, loan approved by bank for 15MW will be disbursed only after injection of 100% equity (promoter plus public) and successful commercial operation and evacuation of energy generated from 25MW project through 132 KV Singati to Lamosangu transmission line. As a result, any delay in completion of 25MW project will lead to delay in completion of 15MW project. Although, company has made significant progress in the phase-I 25MW of the project, the company continues to remain exposed to the risks associated with project implementation and satisfactory operations thereafter as the plant is being executed in the Himalayan region where the uncertain geology and adverse climatic conditions of the area plays a major role in timely completion of the planned activities. Timely completion of the projected within the revised cost and time are the key rating sensitivities.

Exposure to fluctuation in foreign currency exchange rates

All the contracts entered by GLH are in NPR except the contract for Electro Mechanical (EM) works. Company incurred foreign exchange losses earlier during payment to contractor which increased budgeted cost for EM works during first budget revision. Further, the company has outstanding payments for which hedging is not done which exposes GLH to the risk associated with fluctuation in foreign currency exchange rates.

Hydrology risk associated with run-of-the-river power generation

Run-of-the-river power is considered an unsteady source of power, as a run-of-the-river project has little or no capacity for water storage and therefore is dependent on the flow of river water for power generation. It, thus, generates much more power during summer season when seasonal river flows are high (Mid-April to Mid-December) and less during the winter season (Mid-Dec to Mid-April). GLH is proposed to utilize discharge from Khani Khola, Hanapu Khola and Napke Khola having catchment area of 76 sq kms based on snow fed river. The project has 5.10 m3/s design discharge at 40% exceedance flow and gross head of 963m. Hence, the project is exposed to risk associated with variation in discharge of water from the aforesaid river/khola.

Power evacuation risk

The Power generated from the project will be evacuated through 18km long 132KV transmission line to NEA’s Singati substation. Construction of transmission line from powerhouse to Singati substation is under construction with foundation work of 41 towers and erection of 20 towers (out of total 54 towers) completed till August, 2020. Further, power will be evacuated to Lamosangu substation through 132KV transmission line which is still under construction by NEA from long time. If Singati-Lamosangu Transmission line is not completed till the completion of project, GLH will not be able to evacuate full power generated from the project. Timely completion of transmission line by both NEA and GLH will be key rating sensitivity.

Exposure to regulatory risk

Government of Nepal has established Electricity Regulatory Commission (ERC) for regulating generation, transmission and distribution of electricity in Nepal. ERC is the regulator under the GoN which is responsible for regulating hydropower companies in Nepal. Polices and the directives issued by ERC like approval process for Initial Public Offer (IPO) issuance, PPA approval through ERC poses a new challenge to hydropower companies. Hence, sector is prone to regulatory risk and changes in other policies by GoN.

Key Rating Strengths

Power purchase agreement with sufficient period coverage

GLH had entered into a long term PPA with NEA as on October 10, 2010 for sale of 25MW power which was amended to 40MW on June 4, 2017. The period of the PPA is 30 years from the Commercial Operation Date (COD) or till validity of Generation License (received on May 11, 2011 for 35 years), whichever is earlier. PPA period may be extended with mutual consensus during the last six month of validity. For the 25MW project, the tariff for wet season (Mid-April to Mid-December) is Rs 4 per kWh and for dry season (Mid-December to Mid-April) is Rs 7 per kWh with 3% escalation on base tariff for 9 times. For additional 15MW project, the tariff for wet season is Rs 4.80 per kWh and for dry season is Rs 8.40 per kWh with 3% escalation on base tariff for 8 times. The contracted PLF of 66.87% of initial 25MW, 64.34% for additional 15MW and 65.92% for the total 40MW.

Required commercial operational date (RCOD) of the project was April 18, 2020 for 40MW whereas NEA has further agreed for RCOD extension till December 31, 2020 however PPA amendment is yet to be received by the company. The expected COD date for the project is Mid April, 2021 for 25MW and Mid July 2021 for 15 MW. If RCOD is not extended till COD and if there is further delay in the project completion, GLH is bound to pay late COD penalty to NEA. Further, number of escalations in tariff rate will be reduced if there is delay in COD of the project than RCOD by more than 6 months.

Financial closure achieved for major portion of debt component

Total estimated cost of project was Rs 4,795 Mn for 40MW initially which is currently increased substantially to Rs 7,654 Mn (Rs. 6,197 Mn for 25MW and Rs 1,457 Mn for 15MW) and proposed to be funded by Rs 5,327 Mn debt and Rs 1,800 Mn equity. Balance Rs. 527 Mn is proposed to be funded through director's loan and internal accruals. Out of Rs 5,327 Mn debt, financial closure for Rs 4,659 Mn debt was achieved (Rs 3,819 Mn for 25MW and Rs 840 Mn for 15 MW). Financial closure for balance Rs. 668 Mn debt yet to be achieved (Rs 488 Mn for 25MW and Rs 180 Mn for 15 MW). Out of total Rs 1,800 Mn equity required for project, Rs. 1450 Mn has been infused till Mid July 2020 whereas balance Rs. 350 Mn is proposed to be infused through proposed IPO.

Moderate counter party risk

GLH is exposed to counter party payment risk pertaining to Nepal Electricity Authority (NEA), which has been making consecutive losses in past till FY16. However, as per the annual report published by NEA, during FY20 (provisional), NEA earned profit of Rs 11,056 Mn (Rs. 9,812 Mn during FY19). Further, during FY20, NEA achieved gross cash accrual of Rs 16,056 Mn (Rs 14,664 Mn in FY19). The counter party payment risk is moderated by the fact that, NEA is fully owned by government of Nepal, net profit is increasing over the period and generating positive gross cash accruals. Further, NEA has been making timely payment to independent power producers (IPPs) in past.

Current demand & supply gap however expected increase in supply in future

As per the NEA's Annual Report for FY20, the current peak electricity demand is 1,408MW. The total domestic installed capacity stands at 1,328 MW which includes 632 MW owned by NEA and 696 MW by private sector IPPs. Overall, during FY20, total energy demand was 7,894 GWh which was met by import of 1,720 GWh (~22% of total demand) from India whereas balance was met by domestic generation.

However, considering under construction projects which are expected to generate electricity in next 2-3 years and electricity demand which has not increased substantially in past few years could create a situation of oversupply in near future in wet season. This could put pressure on NEA's payment capabilities which is sole counter party with majority of PPA signed on take or pay basis.

Government support for the power sector

GoN Government of Nepal (GoN) considers hydropower generation as priority sector and intends to maximize private sector participation in generation of hydroelectricity by offering different exemptions and facilities. GoN has announced full tax exemption for first 10 years and 50% tax exemption for next 5 years for such person/entity who starts commercial operation, transmission and distribution of electricity up to mid-April 2024. Furthermore, GoN has declared to provide grant of amount equivalent to Rs. 5 Mn per MW installed capacity after receiving evidence of formal COD of complete power plant.

About the Company

Greenlife Hydropower Ltd. (GLH) is a public company, incorporated as on September 20, 2009 as a Greenlife Energy Pvt. Ltd. later on June 23, 2017 it was changed to GLH. It is promoted by institutional promoters and individual promoters from different background for setting up of 40 MW run-of-river, Khani Khola 1 Hydropower Project (KK1HPP) in Dolakha district of Nepal. The power project is proposed to be constructed in two phases. In the first phase, the generation capacity will be 25 MW by utilizing discharge from Khani Khola which will be upgraded to 40 MW in the second phase by adding discharge from Hanapu Khola and Napke Khola. Mrs. Yanchain Doma Lama (31.58%), Greenlife Investment Company Ltd. (15.80%), Kanchanjanga Investment Company Ltd. (14.38%), Mr. Bhusan Thapa (6.71%) and Mrs. Keshang Diki Lama (6.71%) are major promoter shareholder of the company.

Analyst Contact	**Relationship Contact**
Mr. Bidhan Ojha bidhan.ojha@careratingsnepal.com Tel No.: +977-01-4012629	Mr. Sajan Goyal sajan.goyal@careratingsnepal.com Tel No.: 9818832909/+977-01-4012628/29/30

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