Grading Rationale
Greenlife Hydropower Limited

Grading

Facility	Amount (Rs. In Million)	Grading	Rating Action
Initial Public Offer	349.64	CARE-NP IPO Grade 4 [IPO Grade Four]	Assigned

The explanatory notes regarding the Grading symbols of CARE Ratings Nepal Limited (CRNL) are attached as Annexure 1

CRNL has assigned grading of 'CARE-NP IPO Grade 4' to the proposed Initial Public Offer (IPO) of Greenlife Hydropower Ltd (GLH). 'CARE-NP IPO Grade 4' indicates Below Average Fundamentals. CRNL assigns IPO grades on a scale of Grade 1 to Grade 5, with Grade 1 indicating strong fundamentals and Grade 5 indicating poor fundamentals. CRNL's IPO grading is an opinion on the fundamentals of the issuer. The grade assigned to any individual issue represents a relative assessment of the 'fundamentals' of the issuer. GLH proposes to issue 3.4964 Million shares of face value of Rs.100 each at par aggregating Rs. 349.64 Million.

Detailed Rationale & Key Grading Drivers

The grading assigned to GLH is constrained by significant cost and time overrun in the project, project implementation and stabilization risk, decrease in project life due to time overrun, promoters group having limited experience in hydropower sector, and low tariff rate for major part of the contracted energy leading to low return from the project. The grading is also constrained by exposure to fluctuation in foreign currency exchange rate & volatile interest rates, hydrology risk associated with run of the river power generation, and power evacuation risk. The grading, however, derives strength from power purchase agreement (PPA) with sufficient period coverage, moderate counter party risk, financial closure achieved for major portion of debt component, shortage of power in the country, and government support for the power sectors. Timely execution of the project within the new deadlines avoiding any further cost overrun, timely completion of Singati to Lamosangu transmission line to evacuate power generated from the project and sufficient hydrology are the key grading sensitivities.

Detailed Description of the Key Grading Drivers

Key Grading Weaknesses

Significant cost and time overrun in the project

The initial estimated cost of project was Rs 4,795 Mn (Rs 3,338 Mn for 25MW and Rs 1,457 Mn for 15MW) which is escalated to Rs 6,884 Mn (Rs 5,426 Mn for 25MW and Rs 1,457 Mn for 15MW) mainly due to increase in Interest During Construction (IDC) on account of significant delay in completion of the project. The cost of project for 25MW is high at Rs. 197 Mn per MW as project's infrastructure such as headrace tunnel, penstock pipe, powerhouse, transmission line etc. is constructed for 40MW even though generation capacity is 25MW in the first phase. Once the second phase of project (15MW) comes into operation without any further cost escalation, the project cost per MW is expected to be Rs 172 Mn.

Initial Required Commercial Operation date (RCOD) of the project was June 16, 2015 for 25MW and December 19, 2019 for additional 15MW. RCOD was extended to December 31, 2018 for 25MW (remained same for 15 MW) due to delay in completion of project as a result of earthquake, India-Nepal border blockade, local and federal elections, challenges in the weather conditions etc. However, the company was not able to complete the 25MW project in revised RCOD due to challenges in weather conditions, delay in funding by bank and damages to access road. Project is expected to be start operations by Mid Jan, 2020 for 25MW (Mid Jan, 2021 for 15MW). Currently, the company has requested to NEA for extension of RCOD to June 30, 2019 and has plans to request for further extension to Mid Jan, 2020 on back of delay in completion of Singati to Lamosangu transmission line by Nepal Electricity Authority (NEA).

If the company is not able to complete the project till completion of transmission line by NEA, it has 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.

Project implementation and stabilization risk

On the basis of cost incurred till Mid July, 2019, ~95% of 25MW project work has been completed. Till September 5, 2019, major part of civil works in intake including erection of ~90% connecting pipe, ~55% excavation of desander basin, breakthrough of 1,956m Headrace Tunnel (HRT) has been completed. Similarly, works related to surface penstock is in progress with civil work of ~70% anchor block, ~50% saddle support, and erection of ~90% penstock pipe has been completed. Excavation of vertical shaft, ~17% pipe erection in vertical shaft, installation of one electromechanical equipment out of three in powerhouse has been completed. Project work related to 15MW (i.e. water diversion works from Napke and Hanapu Khola) is not started yet. Further, term 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. As a result, any delay in completion of 25MW project will lead to delay in completion of 15MW project.

Although, major part of the project has been completed, the company continues to remain exposed to the risks associated with project implementation and satisfactory operations thereafter as the project 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.

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

Due to delay in execution of the project, life of the project is reduced by ~3 years against 30 years as per PPA. If the project comes into operation in Mid Jan, 2020 as expected by management, the generation license (obtained on May 11, 2011) would be valid for next ~26 years only, resulting in significant loss of revenue from project.

Tariff rate for 25MW contracted capacity is low (i.e. Rs 4 per kWh for wet season and Rs 7 per kWh for dry season) in comparison to tariff rate for additional 15MW contracted capacity (i.e. Rs 4.8 per kWh for wet season and Rs 8.4 per kWh for dry season) due to which overall Return on Networth is expected to be on a lower side. The contracted energy for the project is 228 million units at Plant Load Factor (PLF) of ~66%.

Promoter group having limited experience in hydropower sector

The promoter group of the company have limited prior experience of executing hydropower projects and the project under consideration is the first power project being developed by the company. GLH has total 7 board of directors chaired by Mrs. Yanchain Doma Lama, who is major promoter shareholder of the company (hold 31.58%) and has been associated in hydropower sector for more than one decade. Mr. Tenzin Jampe Lama, managing director, is associated in hydropower sector since last 8 years.

Exposure to fluctuation in foreign currency exchange rates and volatile interest rate

All the contracts entered by GLH are in NPR except the contract for Electro Mechanical (EM) works which is in USD with fixed lump sum contracted amount of USD 7.56 Mn. Out of total contract amount, 20% is yet to be paid and hedging for same is not done which exposes GLH to the risk associated with fluctuation in foreign currency exchange rates. Further, Nepalese banking sectors are fixing interest rate on lending by adding certain percentage of premium on quarterly base rate and interest rate is changed accordingly on quarterly basis. Base rate of the Bank and Financial Institutions is changed by change in liquidity position which leads to change in interest rate. Interest rate has been changing frequently in Nepal market since last 1-2 year. Therefore, funding from Bank and Financial Institutions are exposed to volatile interest rate.

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

Run-of-the-river power is considered an unsteady source of power. It has little or no capacity for water storage and 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 Hence, the project is exposed to risk associated with variation in discharge of water from the aforesaid river/khola.

Power evacuation risk

Power generated from the project will be evacuated via 18km long 132KV transmission line to NEA’s under construction Singati substation which will be further evacuated to Lamosangu substation through 132KV under construction Singati - Lamosangu transmission line (within the scope of NEA). Construction of transmission line from powerhouse to Singati substation is under construction by the company which is expected to be completed by Mid-Jan, 2020. The Singat -Lamosangu transmission line constructed by NEA is still under construction and if the line is not completed till the completion of project, GLH will not be able to evacuate power generated from the project.

Key Grading 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 upgraded 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.

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 FY2016 and carry huge accumulated loss in its book. However, as per the annual report published by NEA, during FY19 (provisional), it has earned profit of Rs 7,205 Mn (Rs 2,897 Mn during FY18). Further, during FY19, it has achieved gross cash accrual of Rs 11,915 Mn (Rs 7,107 Mn in FY18). The counter party payment risk is moderated by the fact that, NEA is fully owned by Government of Nepal, net loss is declining over the period and generating positive gross cash accruals. Further, NEA has been making timely payment to independent power producers (IPPs) in past.

Financial closure achieved for major portion of debt component

Total estimated cost of project is Rs 6,884 Mn proposed to be funded by Rs 4,622 Mn debt and Rs 1,800 Mn equity and the balance amount of Rs 462 Mn is expected to be funded partially through retention money of the sundry creditors, funds from the directors and internal accruals from initial 25MW. Out of Rs 4,622 Mn debt, financial closure for Rs 4,312 Mn debt was achieved. As on Mid July 2019, GLH utilized Rs 3,198 Mn term loan and has availed Rs 343 Mn bridge gap loan.

Out of total equity requirement of Rs 1,800 Mn, Rs. 1,450 Mn has been injected till Mid July, 2019. After issue of proposed IPO, the company’s share capital will reach to Rs 1,800 Mn.

Shortage of power in the country

As per NEA’s Annual Report for FY19, the current peak electricity demand is 1320 MW. The total domestic installed capacity stands 1178 MW which includes 617 MW owned by NEA and 561 MW by private sector IPPs. During FY19, overall energy demand was 7,584 GWh which was met by import of 2,813 GWh from India whereas balance was met by domestic generation. The gap of demand and supply is expected to be increased substantially in coming days.

Government support for the power sector

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 to those who generate electricity within mid-

April 2024. Income tax will be levied only 20% despite the normal tax rate for entity in Nepal is 25%. Also, 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.

Share capital of the company will be distributed among promoters and public shareholder in the ratio of 80:20. After issue of proposed IPO its total capital is expected to be Rs 1,800 Mn. The project is constructed under BOOT (Build, own, Operate and Transfer) mechanism.

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Annexure 1

CARE Ratings Nepal – IPO Grading Scale

CARE IPO grade	**Definition**
CARE-NP IPO Grade 1	Strong fundamentals
CARE-NP IPO Grade 2	Above average fundamentals
CARE-NP IPO Grade 3	Average fundamentals
CARE-NP IPO Grade 4	Below average fundamentals
CARE-NP IPO Grade 5	Poor fundamentals

Note: Modifiers {"+" (plus)} can be used with the grading symbols 2, 3 and 4. The modifiers reflect the comparative standing within the category.