

Rating Rationale
Ridi Hydropower Development Company Limited

Rating

Particulars	Amount (Rs. in Million)	Rating ¹	Rating Action
Long Term Bank Facilities	517.71	CARE-NP BB+ [Double B Plus]	Assigned
Short Term Bank Facilities	159.90	CARE-NP A4+ [A Four Plus]	Assigned
Total Facilities	677.61		

Details of Facilities in Annexure 1

CARE Ratings Nepal Limited (CRNL) has assigned rating of ‘CARE-NP BB+’ to the long-term bank facilities and ‘CARE-NP A4+’ to the short-term bank facilities of Ridi Hydropower Development Company Limited (RHPC).

Detailed Rationale & Key Rating Drivers

The ratings assigned to the bank facilities of RHPC is constrained by project stabilization risk of solar power plant, current project operated at lower Plant Load Factor (PLF) in comparison to the contracted energy, RHPC's exposure to volatile interest rates, hydrology risk associated with run-of-the-river power generation and climatic & technological risk associated with solar power projects. The ratings, however derives strength from experienced promoter and management expertise in renewable energy sector, association with the group having multiple hydropower projects, comfortable financial risk profile with debt free hydropower project and power purchase agreement (PPA) with sufficient period coverage. The ratings also factor in moderate counter party risk, current demand & supply gap however expected increase in supply in future, government support for the power sector and technical assistance from well-known contractors. The ability of the RHPC to reduce the gap between operational PLF and contracted PLF and timely receipt of the payments from Nepal Electricity Authority (NEA) are the key rating sensitivities.

Detailed Description of the Key Rating Drivers

Key Rating Weaknesses

Current project operated at lower PLF

The annual contracted PLF for Ridi Khola Hydrdopower Project (RKHP) is 74.84% of the installed capacity of the plant. The project has been operated at lower PLF over the period. During FY19, the PLF from the project was low at 51.11% (over generation capacity) which improved to 63.16% during FY20. The power generation from the project as a %age to the contracted power as per the PPA, was 68.30% in FY19 and 84.40% in FY20. The total energy generated from the project was lower than contracted energy

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

during FY19 due to hydrology issues during dry season, the shutdown of the plant for the maintenance and the disturbance in the transmission line.

Project stabilization risk associated with solar power plant

The project was expected to come into an operation on October 28, 2020. The company has already completed the trial run for the project and has started generation of electricity from the plant. However, the letter for commercial operation from Nepal Electricity Authority (NEA) is yet to be received. Though, the project has come into an operation, project is still exposed to stabilization risk. Further, generation level of solar power plant in Nepal is yet to be seen considering Butwal Solar Project (BSP) being first solar power project of more than 1 MW developed for commercial purpose. The total energy generated during Mid-October to Mid-November 2020 was 11,34,380 kWh against the contracted energy of 10,88,542 kWh from the solar power plant. The ability of the company to achieve the projected energy generation levels as per the PPA is the key rating sensitivities.

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 wet season when river flows are high (Mid-April to Mid-December) and less during the dry season (Mid-December to Mid- April). RKHP utilizes discharge from Ridi Khola having catchment area of 591sq. kms based on Perennial River. Hence, the project is exposed to risk associated with variation in discharge of water from the aforesaid river/ Khola.

Climatic and Technological risk

The solar power project has used poly-crystalline technology considering that it has a proven history worldwide, suffers relatively lower degradation and requires lesser land, leading to reduction in Balance of Systems cost. Also, the solar PV modules are sourced from reputed suppliers (Waaree Engineer Limited). However, solar power projects are subject to risk associated with changes in climatic conditions, amount of degradation of modules as well as technological risks.

Key Rating Strengths

Experienced promoter and management expertise in renewable sector

RHPC has 5 Board of Directors, chaired by Mr. Guru Prasad Neupane, has more than 30 years of experience in Nepal Rastra Bank and 20 years of experience in power sector. He is also the founder of Arun Valley Hydropower Development Company Ltd (AHPC) (holding 5.05% equity in RHPC; CARE-NP IPO Grade 4+) and also chairperson at Api Power Limited, Siddhakali Power Limited and executive director at Rairang Hydropower Development Company Limited (RHDCL) (CARE-NP BBB-/A3). Mr. Kuber Mani Nepal, Executive Director, has more than 20 years of experience. He is involved with the

company since its inception and also represents the board of RHDCL and is supported by other experienced management team.

Association with the group having multiple hydropower projects

RHPC is one of the associate companies under Arun Valley Hydropower Group of companies (AHPC). AHPC has been involved in operation and construction of hydropower projects by itself and through associate companies. Currently, the group has 57.30 MW hydropower projects which are operational and 49.94 MW hydropower projects are under construction. The group also has 22 MW solar power projects which are under initial stage.

Comfortable financial risk profile with debt free hydropower project

RHPC has 2.4 MW operational Ridi Khola Small Hydropower Project (RKHP) and 8.5 MW Butwal Solar Project (BSP). The total debt for the construction of RKHP has already been repaid by the company. Hence, the operational hydropower project is debt free and the cash flow from the RKHP will provide cushion for the debt repayment of the solar power project. Also, RHPC has made an investment of Rs. 140 Mn i.e. 25% of shares in RHDCL which has one operational hydropower project.

RHPC reported income of Rs. 51 Mn through the sale of electricity during FY20 as compared to Rs. 45 Mn in FY19. The increase in revenue during FY20 was due to additional electricity generation on account of better hydrology during the year. Company reported overall gearing ratio of 1.11x at the end of FY20. Gearing ratio deteriorated during FY20 on account of the increase in total debt of the company for the solar power project. Total debt to Gross Cash Accrual (GCA) ratio also deteriorated to 18.92x during FY20.

Power purchase agreement with sufficient period coverage

The PPA is signed for a period of 25 years from the date of RCOD or till validity of Generation License (which are obtained on May 31, 2007 for RKHP and May 28, 2019 for BSP for 35 and 25 years respectively), whichever is earlier. PPA period for RKHP may be extended with mutual consensus through discussion from last six month of validity. Required Commercial Operation Date (RCOD) for BSP was July 24, 2019. The company is in the process of further extension of RCOD with NEA and expected COD of the project as per the company was October 28, 2020. RHPC has already completed the testing phase of the BSP and has started to generate electricity from the plant.

Moderate counter party risk

RHPC 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) resulting the accumulated profit in its book. 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 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.

The average collection period from NEA during FY20 was 62 days (FY19:67 days). During FY20, the company received payment from NEA for supply of power generated by RKHP within 43 to 61 days.

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.

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.

Technical assistance from well-known contractors

RHPC has entered into an agreement with GE T&D India Limited for the supply of electro-mechanical equipment and installation supervision which is established in 1957. It is a leading energy player in India with strong capabilities in engineering, manufacturing, project management and supply of products and solutions for power generation and transmission infrastructure requirements. Also, the solar photovoltaic (PV) modules have been sourced from Waaree Energies Ltd. (WEL). WEL, established in 1989 has presence over 68 countries with the head quarter in Mumbai, India. It is the globally leading manufacturer of solar PV modules and a provider of solar energy solutions with manufacturing capacity of 1500 MW. The solar panels procured has the warranty of minimum energy generation for 25 years.

About the Company

RHPC is a public limited company, incorporated in March 11, 2001 as a private limited company and later converted to public limited company as on August 04, 2008. It is promoted by institutional promoters and business persons having long experience in the hydropower and other sectors for setting up Hydroelectric Project (HEP) in the territory of Nepal. The company is listed with Nepal Stock Exchange

from July 06, 2014. RHPC is involved in the operation of 2.4 MW Ridi Khola Small Hydropower Project (RKHP) at Gulmi district which has been in commercial operation since October 27, 2009. Also, RHPC has setup 8.5 MW Butwal Solar Project at Butwal Rupandehi district. The solar project is currently operational. The total paid up capital of the company as on July 15, 2020 is Rs. 557.67 Mn. The major shareholders of the company as on Mid-July, 2020 are Arun Valley Hydropower Development Co. Ltd (5.05%) [CARE-NP IPO Grade 4+; Assigned on 2020], Mr. Guru Prasad Neupane (3.52%) and Mr. Dedraj Khadka (2.65%). The projects are constructed under BOOT (Build, own, Operate and Transfer) mechanism. As per the Generation License, from Government of Nepal – Ministry of Energy, dated May 28, 2019 for BSP and May 31, 2007 for RKHP, the project shall be handed, on whatever conditions the project is, to the Government of Nepal after expiry of Generation License, which is 25 and 35 years respectively.

Brief Financial Performance during the last 3 years is as follows:

(Rs. In Million)

Particulars	FY18 (A)	FY19(A)	FY20(UA)
Income from Operations	46	45	51
PBILDT	37	36	36
PAT	27	28	29
Overall Gearing (times)	0.10	0.07	1.11
Interest coverage (times)	4.64	13.96	34.51

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Annexure 1: Details of the Facilities rated

Facility/ Instrument	Type of the Facility	Amount (Rs. In Million)	Rating
Long Term Bank Facilities	Term Loan	517.71	CARE-NP BB+
Short Term Bank Facilities	Overdraft	30.00	CARE-NP A4+
Short Term Bank Facilities	Bridge Gap Loan	129.90	CARE-NP A4+
Total Facilities		677.61	