

Moonlight Hydropower Development Limited

Ratings

Facilities	Amount (Rs. Million)	Rating ¹	Rating Action
Long Term Bank Facilities	2,631.00	CARE-NP BB- [Double B Minus]	Assigned
Total Facilities	2,631.00 [Two Thousand Six Hundred and Thirty-One Million Only]		

Details of instruments/facilities in Annexure-1

CARE Ratings Nepal Limited (CRNL) has assigned the rating of 'CARE-NP BB-' to the long-term bank facilities of Moonlight Hydropower Development Limited (MHDL).

Detailed Rationale & Key Rating Drivers

The rating assigned to MHDL is constrained by project implementation risk and funding risk associated with its under construction Balephi Hydropower Project (BHP) amid cost overrun. Furthermore, the rating also factors in operation stabilization risk associated with the greenfield hydropower project post commencement of commercial operation, hydrology risk associated with run-of-the-river power generation and exposure to volatile interest rate and regulatory risk.

The rating, however, derives strengths from MHDL's experienced promoters and management team and presence of power purchase agreement (PPA) with sufficient period coverage. The rating also factors in low power evacuation risk, moderate counter party risk and government support for the power sector.

Going forward, the ability of the company to successfully execute the project within envisaged cost and time and early stabilization thereafter will be the key rating sensitivities.

Detailed description of the key rating drivers

Key Rating Weaknesses

Project implementation and funding risk

MHDL is setting up a 22.14 MW run-of-river Balephi Hydropower Project (BHP) in Sindhupalchowk district of Nepal. The estimated cost of the project was Rs.3,739 Mn for total installed capacity of 22.14 MW (Rs. 170 Mn per MW) which was proposed to be financed in debt-equity ratio of 70:30 (Rs. 2,631 Mn term loan and Rs. 1,128 Mn equity). However, the company has estimated the escalation in project cost by 13% making the revised cost of the project to be Rs. 4,234 Mn (Rs. 191 Mn per MW) to be financed in debt equity ratio of 62:38 (Rs. 2,631 Mn term loan and Rs.1,603 Mn equity). The revision in project cost was on account of increase in the cost of materials and equipment's, increase in management and supervision cost and increase in Interest during Construction (IDC) amid time overrun, due to delay in completion of proposed Bahrabise substation by NEA. The total debt amounting to Rs. 1,547 Mn has been fully tied up.

The project has achieved financial progress of around 67% as on Mid-May 2023. The funding for the escalated cost is likely to be met from equity through the proceeds of an Initial Public Offering (IPO). The access roads have been completed and 95% of work related to headrace tunnel is completed. The orders for hydromechanical equipment have been placed and LC for electromechanical equipment has been opened. As the project has not reached advanced stages of construction, this exposes the company towards project execution risk in terms of completion of the project within the envisaged cost and time.

¹Complete definition of the ratings assigned are available at www.careratingsnepal.com and other CARE publications

Furthermore, the equity portion is projected to infuse from the public offerings, the company remains susceptible to risk related to its funding. Hence, timely infusion of the proposed equity remains crucial from credit standpoint.

The Required Commercial Operation Date (RCOD) of the project was June 15, 2018 (for original capacity of 10.6 MW) and May 25, 2023 (for additional capacity of 11.54 MW) as per Purchase Power Agreement (PPA) with Nepal Electricity Authority (NEA). The RCOD for 10.6 MW is extended till April 2024 on account of delay in completion of proposed Barabishe substation by NEA. The company has applied for RCOD extension of further 1-year in both cases, which is yet to be approved. The company expects the commercial operation of the project to be by July 15, 2024. If the project is not completed within the mentioned RCOD, then the company is required to pay delay penalty. Furthermore, if COD is delayed by 6 months to 18 months from RCOD, there are restriction clauses in escalation of tariff rate. It is crucial of the company to complete the project within the timelines to avail the accelerated clauses of tariff. Any delay in the same would impact project returns and debt servicing capabilities, which is critical from analytical perspective.

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 (June to November) and less during the dry season (December to May). The power project is proposed to utilize available head and flow from Balephi Khola (river). The project utilizes discharge from Seti Khola (river) having catchment area of 542.65 km² based on perennial river and 32.40 m³/s design discharge at 40% exceedance flow.

Since there is no minimum commitment on revenue in PPA in case of adverse river flows scenario, the company is exposed to hydrology risk of the power project for the generation of revenue. The project is also subjected to dry-energy short-supply penalty in case the project fails to supply a minimum of 30% of the annual energy generation in the dry months for additional 11.14 MW. Hence, the project is exposed to risk associated with variation in discharge of water from the aforesaid river/ khola.

Exposure to volatile interest rate

Nepalese banking sector has a floating interest rate regime, where a certain premium is added to the quarterly base rate and interest rate is changed accordingly on quarterly basis. The base rates of the banks and financial institutions (BFIs) in Nepal remain quite volatile as they are impacted by available liquidity in the system which leads to change in interest rates. The volatility in interest rate is more evident currently on account of the ongoing liquidity stress in the economy, with substantial upward pressure on interest rates in the last few quarters. A contractionary monetary policy for FY23 coupled with increasing inflation has only added to the upward pressure on interest rates, resulting in increased base rates of BFIs in the first half of FY23. Any further significant rate hikes could put increased interest burden on the company, squeezing its profitability and impacting its liquidity position. Therefore, funding taken by the company from BFIs is subject to volatile interest rate.

Exposure to regulatory risk

Government of Nepal (GoN) has recently established Electricity Regulatory Commission (ERC) for regulating generation, transmission and distribution of electricity in Nepal. ERC will be the regulator under the GoN which will be responsible for regulating hydropower companies in Nepal. Policies and directives issued by ERC like approval process for 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

Experienced promoters and management team

MHDL board is chaired by Mr. Birendra Bahadur Neupane who has around 4 decades of experience in civil construction including experience in hydropower sector. He has been associated with various operational hydropower projects under Himal Dolakha Hydropower Company Limited (HDHCL) [CARE-NP B+/A4], Joshi Hydropower Development Company Limited, Peoples Energy Limited and under-constructed hydropower projects as KBNR Isuwa Power Limited [CARE- NP BB/ A4] , Isuwa Energy Private Limited [CARE-NP BB/A4]. The board is well supported by other experienced management team.

Power purchase agreement with sufficient period coverage with high dry energy mix

The total installed capacity of the plant is 22.14 MW. MHDL had entered into PPA with Nepal Electricity Authority (NEA) as on October 30, 2012 for 10.6 MW for sale of power generated by the plant BHP on take or pay modality. PPA was thereafter amended on December 28, 2020 for additional capacity of 11.14 MW for sale of power thus generated on take and pay modality. The contracted Plant Load Factor (PLF) for total 22.14 MW is 64.22% with total contracted energy of 124.56 MU. PPA has been entered for the period of 30 years from the COD or till validity of generation license (obtained on April 19, 2015 for 35 years) whichever is earlier. PPA period may be extended with mutual consensus during the last six months of validity. Tariff rate as per PPA is Rs 4.80 per Kwh for wet season (Mid-April – Mid-December) and the tariff rate for dry season (Mid-December-Mid-April) is Rs.8.4 per Kwh with 3% annual escalation on base tariff for 5 years for initial 10.6 MW. Tariff rate as per PPA is Rs. 4.80 per Kwh for wet season (June to November) and the tariff rate for dry season (December to May) is Rs. 8.4 per Kwh with 3% annual escalation on base tariff for 8 years for additional 11.14 MW.

Low Power Evacuation Risk

The power generated from the project was proposed to be evacuated through 18 km long 132KV Transmission Line to under construction Barabishe substation. However, MHDL has enter into an agreement with Balephi Hydropower Limited for power evacuation through 132KV transmission line to NEA's operational Lamosanghu substation on cost sharing basis. MHDL is only responsible for construction of 1 km transmission line from its powerhouse to Lahachowk Substation. Timely completion of the said transmission line will be key rating sensitivity.

Favorable Government policies towards 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 2027. Also, with government focus more toward reservoir-based hydropower projects; Monetary Policy FY23 has provided full tax exemption for first 15 years and 50% tax exemption for next 6 years to reservoir and semi- reservoir projects completing financial closure within mid-April 2029 with a capacity higher than 40 MW. As per various directives from NRB whereby all the banks (type A, B C, D) have to allocate minimum share of their total advances to energy sector which argues well for the sector.

About the company

Moonlight Hydropower Development Limited (MHDL) is a public limited company, incorporated on July 13, 2006 as private limited company and later on converted into public limited company on July 15, 2022. It is promoted by individual promoters having experience in setting up hydropower projects. MHDL is setting up of a 22.14 MW run-of-river, Balephi A Hydropower Project (BHP) in Golche, Baramchi & Selang VDC, Sindhupalchowk district of Nepal.

Annexure-1: Details of Instruments/Facilities

Name of the Instrument	Type of the Facility	Amount (Rs. Million)	Rating
Long Term Bank Facilities	Term Loan	2,631.00	CARE-NP BB-
Total Facilities		2,631.00	

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