

**Rating Rationale
Super Madi Hydropower Limited**

Rating

Facility	Amount (Rs. In Million)	Rating ¹	Rating Action
Long Term Bank Facilities	5,602.50	CARE-NP BB [Double B]	Assigned
Short Term Bank Facilities	150.00	CARE-NP A4 [A Four]	Assigned
Total Facilities	5,752.50		

Details of Facilities in Annexure 1

CARE Ratings Nepal Ltd. (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 Super Madi Hydropower Limited (SMHL).

Detailed Rationale & Key Rating Drivers

The ratings assigned to the bank facilities of SMHL is constrained by project implementation and stabilization risk given its initial stage of construction, exposure to fluctuation in foreign currency exchange rate along with volatile interest rates, and hydrology risk associated with run-of-the-river power project. The ratings, however, derives strength from board and management team having prior experience in executing hydropower project, power purchase agreement (PPA) with sufficient period coverage, and moderate counter party risk. The rating also factors in low estimated cost per MW coupled with financial closure achieved for estimated project cost, shortage of power in the country, government support for the power sector, and low power evacuation risk. Timely execution of the project within the RCOD avoiding any time or cost overrun along with sufficient hydrology and timely receipt of the payments from NEA will be the key rating sensitivities.

Detailed Description of the Key Rating Drivers

Key Rating Weaknesses

Project implementation risk and stabilization risk as the project is in initial stage of construction

The project is in initial stage of construction as it has achieved ~18% financial progress on the basis of cost incurred till October 17, 2019. Till September 17, 2019, construction of access road, site office, staff camp, army camp, transmission line work related to construction power, installation of crusher plant, and contractor’s selection for civil work, hydro mechanical (HM) work and electro mechanical (EM) work has been completed. Excavation of head race tunnel is in progress with 1,312m completed out of 5,905m. Site clearance and rock excavation at headwork’s and site clearance at powerhouse is in progress. As major part of the project work yet to be done, the company continues to remain exposed to the risks associated with project implementation and satisfactory operations thereafter. Timely completion of the project within the estimated cost and time and satisfactory operations thereafter are the key rating sensitivities.

Exposure to fluctuation in foreign currency exchange rates along with volatile interest rate

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

SMHL has entered into contract agreement for EM work at fixed lump sum amount of USD 8.36 Mn. Apart from that, it has entered into contract agreement with Madi Power Private Ltd. (MPPL) for use of 10.5 KM long transmission line constructed by MPPL, for which SMHL has to pay USD 1.57 Mn. The company has not taken any measures to hedge the foreign currency payment which exposes the company to foreign currency fluctuation risk.

Further, Nepalese banking sectors are fixing interest rate on lending by adding certain percentage of premium on quarterly base rate and interest rate will be changed accordingly on quarterly basis. Base rate of the Bank and Financial Institutions is changed by change in liquidity position which lead 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, as it 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). SMHL is proposed to utilize discharge from Madi Khola having catchment area of 284 sq kms based on snow fed perennial river. Hence, the project is exposed to risk associated with variation in discharge of water from the aforesaid river/khola.

Key Rating Strengths

Board and management team having prior experience in executing hydropower project

SMHL has 7 board of directors which includes directors with experience in other hydropower projects and businesses. The board is chaired by Mr. Pushpa Jyoti Dhungana, executive chairperson, who has ~15 years of experience in hydropower sector. Mr. Dhungana is managing director (MD) of Panchthar Power Company Ltd., 14.9 MW operational power project (CARE-NP IPO Grade 4), and former MD of Pati Khola Hydropower Project, 1MW operational power project. The Board is supported by experienced management team.

Power purchase agreement with sufficient period coverage

PPA with Nepal Electricity Authority (NEA) for sale of 44 MW power to be generated by the project was entered on February 9, 2017. The period of the PPA is 30 years from commercial operation date (COD) or till validity of Generation License (obtained on March 30, 2017 for 35 years), whichever is earlier. PPA period may be extended with mutual consensus during the last six month of validity. The tariff for wet season (Mid-April to Mid-December) is Rs 4.80 per kWh and for dry season (Mid-December to Mid-April) is Rs 8.40 per kWh with 3% escalation on base tariff for 8 times in yearly basis. The contracted energy of the project is 242.65 million units (MU) (i.e. 37.76 MU for dry season and 204.89 MU for wet season), at PLF of 63.83%. Required Commercial Operation date (RCOD) of the project is June 11, 2021.

Moderate counter party risk

SMHL 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.

Low estimated cost per MW coupled with financial closure achieved for estimated debt and ~58% of equity has been injected

The total estimated cost of the project is Rs. 7,470 Mn (i.e. Rs 170 Mn per MW) which is lower than other peers in the industry. The project cost is proposed to be funded in debt: equity ratio of 75:25 (i.e. Rs 5,602 Mn term loan and Rs 1,867 Mn equity). Financial closure for the proposed debt of Rs 5,602 Mn was achieved on August 16, 2018. Till October 17, 2019, Rs 249 Mn bridge gap loan was utilized.

Further, till October 17, 2019, Rs 1,084 Mn equity share capital (i.e. ~58% of total equity share capital of Rs 1,867 Mn) has been infused by promoter shareholder. Company ability to receive balance equity from promoter's shareholders and raise fund from public shareholder in a timely manner would remain a concern.

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.

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 power plant.

Low power evacuation risk

The power generated from the project will be evacuated via 20Km long 132KV transmission line to NEA Lekhnath Substation at Kaski District. Out of total 20 km long transmission line, SMHL will construct 9.5Km transmission line from powerhouse and for remaining 10.5 Km, the project will utilize transmission line constructed by MPPL (having 25 MW operational hydropower project). NEA's Lekhnath substation is

operational leading to low power evacuation risk to SMHL. SMHL is yet to acquire land required for construction of transmission line and contractor for transmission line work yet to be selected. Timely completion of transmission line work within the scope of SMHL will be key rating sensitivity.

About the Company

SMHL is a Public limited company, incorporated on January 16, 2009. The company is developing 44 MW run- of-river, Super Madi Hydropower Project (SMHP) in Kaski district of Nepal. The project is proposed to utilize available head and flow from Madi Khola (river). It is promoted by institutional as well as individual promoters from different background. The major shareholder of the company as on October 17, 2019 are Mr. Pushpa Jyoti Dhungana (21.13% stake), CG Energy Infrastructure Pvt. Ltd. (13.65% stake), Madi Investment Pvt. Ltd. (7.83% stake), Mr. Raghunath Puri (6.75% stake), and Mr. Mitra Pasad Kafle (5.75% stake).

The project is constructed under BOOT (Build, own, Operate and Transfer) mechanism. As per the Generation License, obtained on March 30, 2017 the project shall be handed, on whatever conditions the project is, to the Government of Nepal after expiry of Generation License, which is 35 years.

<p>Analyst Contact Ms. Apsara Upreti apsara.upreti@careratingsnepal.com Tel No.: +977-01-4445473</p>	<p>Group Head Mr. Bidhan Ojha bidhan.ojha@careratingsnepal.com Tel No.: +977-01-4445474</p>	<p>Relationship Contact Mr. Sajjan Goyal sajan.goyal@careratingsnepal.com Tel No.: 9818832909/+977-01-445472/3/4</p>
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Annexure 1: Details of the Facilities rated

Nature of the Facility	Type of the Facility	Amount (Rs. Million)	Rating
Long Term Bank Facilities	Term Loan	5,602.50	CARE-NP BB
Short Term Bank Facilities	Working Capital Loan	150.00	CARE-NP A4
Total Bank Facilities		5,752.50	