Rating Rationale

Pan Himalaya Energy Private Limited

Rating

Particulars	Amount (Rs. In Million)	Rating[1]	Rating Action
Long Term Bank Facilities	10,312.41 (enhanced from 6,961.00)	CARE-NP BB [Double B]	Reaffirmed
Total Facilities	**10,312.41**		

Details of Facilities in Annexure 1

CARE Ratings Nepal Limited (CRNL) has reaffirmed rating of 'CARE-NP BB' to the long-term bank facilities of Pan Himalaya Energy Private Limited (PHEPL).

Detailed Rationale & Key Rating Drivers

The ratings assigned to the bank facilities of PHEPL continues to be constrained by financial closure yet to be achieved for enhanced capacity of the project, project implementation and stabilization risk, offtake risk for additional energy. The rating is also constrained by power evacuation risk, hydrology risk associated with run of the river power generation and PHEPL's exposure to regulatory risk. The rating, however, derives strength from strong promoters and experienced management team, presence of power purchase agreement (PPA) with sufficient period coverage even though PPA for the additional capacity of 25.60 MW is yet to be signed with NEA and moderate counter party risk. The ratings also factor in current demand & supply gap however possible oversupply in future and government support for the power sector. The ability of PHEPL to timely complete the project without any time or cost overrun and timely completion of transmission infrastructure are the key rating sensitivities.

Detailed Description of the Key Rating Drivers

Key Rating Weaknesses

Financial closure yet to be achieved for enhanced capacity

The estimated cost of the project for 51.40 MW was Rs. 9,281.31 Mn (i.e. Rs. 180.57 Mn per MW) which was proposed to be financed in Debt equity ratio of 75:25. However, same is revised to Rs. 12,890.48 Mn (i.e. Rs. 167.41 Mn per MW) for 77 MW. The project cost was increased mainly due to reclassification in the budgeted heads of Hydro mechanical cost and increase in civil cost due to design modification. The initial estimated project cost of Rs. 9,281.31 Mn for 51.40 increased to Rs. 10,880.76 Mn due to time and cost overrun and with addition in generation capacity of 25.60 MW the total project cost increased to Rs. 12,890.48 Mn which is proposed to be funded in Debt equity ratio of 80:20 (i.e. Rs 10,312.41 Mn term loan and Rs 2,578.07 Mn equity). PHEPL has already entered into consortium loan agreement for Rs 6,961 Mn term loan. However, for the additional loan amount of Rs. 3,351.41 Mn, financial closure is yet

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

to be achieved. The banks have agreed to provide the required loan facility to the company as per the minutes of its Consortium Meeting with PHEPL. Even though the project cost has increased substantially, it is moderated by increase in repayment period. Out of Rs 2,578.07 Mn of equity, till January 25, 2021 Rs. 1,736.36 Mn has been infused by shareholders.

Project implementation and stabilisation risk

The per MW cost has decreased to Rs.167.41 Mn as compared to earlier Rs.180.57 Mn due to the additional energy capacity of 25.60 MW. Till January 13, 2021, the company has achieved financial progress of 42.09%. There was time overrun in the project on account of delay in the construction of the access road due to monsoon season. Also, the construction works at the project site was impacted due to COVID 19. As per the progress report of December 2020 submitted by the company, 100% of the main access road and internal road; ~3% of the works in Likhu Head works; ~5% of the penstock/Hydro mechanical works; ~20% of the power house works and ~5% of the Transmission line works is completed. Excavation of adit tunnel and the Surge Tunnel has been completed and excavation of the head works is going on. As major part of the project work is yet to be completed, the company continues to remain exposed to the risks associated with project implementation and satisfactory operations thereafter. Timely completion of the project without further cost overrun and satisfactory operations thereafter are the key rating sensitivities

Offtake risk for additional energy

Total installed capacity of the plant is 77 MW however PHEPL has entered into agreement with NEA on take or pay basis only for the energy to be generated from 51.4 MW at contracted PLF of 62.82%. For energy to be generated from balance 25.60 MW, the company is proposed to enter into take and pay contract with NEA. Hence, PHEPL has offtake risk for additional energy if NEA doesn't purchase additional energy generated from the project. However, the risk is moderated due to expected sales of energy to India through cross boarder transmission line between India and Nepal and other planned transmission line between two countries which is expected to aid in sale of excess energy to India in future.

Power evacuation risk

The power generated from the project is proposed to be evacuated through 7Km long 132KV Transmission Line to the under construction Likhu-2 hydropower project which would be further connected to Likhu-A hydropower project both of which is being developed by MV Dugar Group. Power will be further evacuated from Likhu-A to proposed New Khimti Substation through 30Km long transmission line and further to Dhalkebar substation. As per the management, New Khimti Substation is expected to be completed by Mid-June 2021. The foundation works of 4 tower has been completed out of the total 17 towers from Likhu 1 to Likhu 2 as on Mid-March 2021. Construction of transmission line from powerhouse to Likhu-A project is within the scope of PHEPL and from Likhu-A to New Khimti Substation will be constructed by three projects being developed by MV Dugar Group. Timely completion of the transmission lines and substations by both PHEPL and NEA will be key rating sensitivity.

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 river flows are high (Mid-April to Mid-December) and less during the winter season (Mid-Dec to Mid-April). PHEPL is proposed to utilize discharge from Likhu Khola having catchment area of 253 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.

Key Rating Strengths

Strong promoters and experienced management team

PHEPL is part of MV Dugar Group which has business across different sectors along with Banks, Insurance, Automobiles, Construction etc. Mr. Motilal Dugar, Chairman of PHEPL and Executive Chairman of the group, is established businessman of Nepal and has more than 47 years of experience and is Chairman of Sunrise Bank Limited [CARE-NP A-]. Company's management team is led by Mr. Vipin Arora, Chief Executive Officer of the company and has more than 42 years of experience in various organizations related to hydropower and energy sector. He is supported by other experienced management team.

Power purchase agreement with sufficient period coverage

PHEPL had entered into a long term PPA with NEA as on March 3, 2015 for sale of 51.4 MW power to be generated from the project on take or pay basis with annual contracted Plant Load Factor (PLF) of 62.82%. Tariff rate as per PPA is Rs 4.80 per kWh for wet season (Mid-April to Mid-December) and Rs 8.40 per kWh for dry season (Mid-December to Mid-April) with 3% annual escalation on base tariff for 8 times on annual basis. Required Commercial Operation Date (RCOD) of the project is July 16, 2020. However, the same has been extended to November 27, 2020. Project is expected to commercial start operation by July 16, 2022. The ministry of Energy, water resources and irrigation has decided to extend the RCOD by one year for the COVID impacted hydropower projects. If RCOD doesn't fall within COD, the company is required to pay late COD penalty. Further, if COD is delayed by 6 months to 18 months from RCOD, then the number of escalations in tariff rate will decrease to 7 times from 8 times. Further, PHEPL is in process of amending PPA with NEA to increase the capacity of the project to 77 MW. The company has estimated the additional energy of 78MU from the enhanced capacity of 25.6MW on take and pay basis with the PLF of 34.78% and additional energy is projected to be generated only during the wet seasons and the tariff rate is estimated to be Rs. 4.80 per kWh during wet seasons.

Moderate counter party risk

PHEPL 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, 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 possible oversupply 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 1,721 GWh 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. Further, no income source will be asked for investment made within mid-April 2020 in hydro-electricity project. Also, Unified Directive of 2020/21, has directed "Class-A" to allocate minimum 10% of credit to energy sector and "Class-B" and "Class-C" banks to allocate minimum 20% and 15% of total credit respectively to agriculture, energy, SMEs and tourism sector within mid-July 2024.

About the Company

Pan Himalaya Energy Private Limited (PHEPL) is a Private Limited company, incorporated as on December 27, 2005. It is promoted by individual promoters majorly related to MV Dugar group which has investments in other institutes which includes Banks, Construction company and Automobiles trading for setting up of a 77 MW run-of-river, Likhu 1 Hydropower Project (LIHP) in Solukhumbu and

Ramechhap district of Nepal. The estimated cost of the project. Rs. 167.41 Mn per MW for 77 MW which was proposed to be financed in Debt equity ratio of 80:20. MV Dugar Group is developing three hydropower projects including LIHP in Likhu river adjacently. The project is constructed under BOOT (Build, own, Operate and Transfer) mechanism. As per the Generation License, from Government of Nepal – Ministry of Energy, obtained as on October 9, 2015 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.

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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	6,961.00	**CARE-NP BB**
Long Term Bank Facilities - Proposed	Term Loan	3,351.41	**CARE-NP BB**
Total		**10,312.41**	