

Grading Rationale

Arun Valley Hydropower Development Company Ltd

Grading

Particulars	Amount (Rs. In Million)	Grading	Grading Action
Rights Share Issue	998.3231	CARE-NP IPO Grade 4+ [IPO Grade Four Plus]	Assigned

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

CARE Ratings Nepal Ltd. (CRNL) has assigned grading of ‘CARE-NP IPO Grade 4+’ to the proposed Rights Share Issue of Arun Valley Hydropower Development Company Ltd. (AHPC). ‘CARE-NP IPO Grade 4+’ indicates Below Average Fundamentals. CRNL assigns IPO grade on scale of Grade 1 to Grade 5, with Grade 1 indicating strong fundamentals and Grade 5 indicating poor fundamentals. CRNL use modifier {"+" (plus)} with the grading symbols 2, 3 and 4 and the same reflect comparative standing within the category. The grading of 2+, 3+ and 4+ is better than 2, 3, and 4, respectively. 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. AHPC proposes to issue 9.983231 Million shares of face value of Rs.100 each at par aggregating Rs. 998.3231 Million.

Detailed Rationale & Key Grading Drivers

The grading assigned to AHPC is constrained by project implementation risk and stabilisation risk along with relatively high estimated cost of project, current project operated at low plant load factor (PLF), and operational and execution risk of the projects in which AHPC has invested and provided corporate guarantee. The grading is also constrained by exposure to volatile interest rates, hydrology risk associated with run of the river power generation, and exposure to regulatory risk. The grading, however, derives strength from experienced promoter/ directors and management expertise, multiple hydropower projects being developed through associate companies, long track record in operating hydro power project coupled with comfortable financial performance with dividend paying history. The grading also derives strength from power purchase agreement with sufficient period coverage, moderate counter party risk, and financial closure achieved for the project cost. Further, the grading is also supported by low power evacuation risk, shortage of power at present coupled with increasing demand of power in the country and government support for the power sector.

Detailed Description of the Key Grading Drivers

Key Grading Weaknesses

Project implementation risk and stabilisation risk along with relatively high estimated cost of project

The total estimated cost of Kabeli B-1 Cascade Hydroelectric Project (KBHEP) is relatively high at Rs 1,979 Mn (i.e. Rs 199 Mn per MW). Further, the project has achieved only ~7% financial progress on the basis of cost incurred till January 14, 2020. Till Mid-December 2019, only pre-implementation activities such as construction of access roads, store house and camp facility has been completed. The project has 37.1 m net head and includes 1,165 m long headrace pipe and two penstock pipes of 73 m and 75 m. Two turbines (each having 5.13MW capacity) and one transformers with 13 MVA capacity is proposed to be installed in the project.

As the contract for Civil, Hydromechanical (HM) and Transmission Line work is yet to be awarded, it seems challenging for the company to complete the project within RCOD of September 17, 2021. As the project is at the initial stage of construction it is exposed to execution risk associated with development of hydropower project and satisfactory operations thereafter. However, the project implementation risk is moderated to some extent as the project is being built by experienced developer.

Current project operated at low PLF

The annual contracted PLF of the Puluwa Khola Small Hydroelectric Project (PKHEP) is 74.38% of the installed plant capacity. The project has been operated at low PLF over the period. During FY18 (refers to 12 months' period ended on Mid July, 2018), the PLF from the project was low at 49.17% which was slightly improved to 51.90% during FY19. The power generation from the project as a percentage to the contracted power as per the PPA was 66.29% in FY18 and 69.77% in FY19. Operated PLF was lower than contracted energy PLF on annual basis due to hydrology issues along with landslide occurred in FY19 which resulted in short supply penalty of Rs. 4 Mn during FY19 as well as revenue losses. However, the energy generation has improved during H1FY20 (refers to 6 months' period ended on Mid Jan, 2020) vis-à-vis H1FY19. The PLF of the project increased to 79.03% during 6MFY20 from 58.91% during 6MFY19. The ability of the company to reduce the gap between operational PLF and contracted PLF and availability of sufficient hydrology would impact return on network.

Operational and execution risk of the project, in which AHPC has invested and provided corporate guarantee

AHPC has investment of Rs 530 Mn in FY19 which mainly includes investment in associates companies related to power projects. The major investment of Rs 360 Mn is in Arun Kabeli Power Ltd. - AKPL (has 25MW operational hydropower project). AHPC's income from investment will depend upon the performance of the associates companies. Associate companies with projects under construction are

exposed to project execution and stabilization risk and operational projects are prone to performance risks. During FY19, AHPC witnessed lower income from investment in associates. Further, AHPC has provided corporate guarantee to the loan availed by AKPL amounting to Rs. 420 Mn.

Exposure to volatile interest rates

Nepalese banking sectors are fixing lending interest rate based on quarterly base rate and interest rate will be changed accordingly on quarterly basis. Due to tight liquidity in the market, the interest rate has been high and volatile during the last 12 months. Therefore, funding from Bank and Financial Institutions is exposed to volatile interest rate.

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

Run-of-the-river power is considered to be 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 times when seasonal river flows are high and much less during the drier months. PKHEP is generating electricity from discharge of Piluwa River and KBHEP proposed to utilize water discharge from tailrace of Kabeli B-1 Hydroelectric Projects (Kabeli B-1 HEP), which are snow fed streams, comprising of mountainous terrain. Hence, the projects are exposed to risk associated with variation in discharge of water from the aforesaid rivers. However, the hydrology risk of KBHEP is moderated to some extent as the operational PLF of Kabeli B-1 HEP (which tailrace water will be utilized by KBHEP) is comfortable at 43.34% of generation capacity and 90.77% of contacted energy during 3 months' period from Nov 9, 2019 to Feb 5, 2020.

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 has issued a directive to take approval before public issuance of share capital. It poses a new challenge to hydropower companies which has to go through an additional approval process before it can issue shares to public. Hence, the hydropower companies planning for public issuance of share capital is exposed to risk associated with delay in approval process which may delay project funding and eventually delay the project.

Key Grading Strengths

Experienced promoter/ directors and management expertise

AHPC is managed under the overall guidance of the company's Board of Directors (BoD), who possesses wide experience in the hydro power sector. AHPC has five board of director. Mr. Ramesh Prasad Neupane is the Executive Chairperson of the company since Sep 2017, after having served as Managing Director for seven years. Mr. Neupane has more than two decades of experience in hydro power sector and is one of the director at Ridi Hydro Power Development Co. Ltd. since 2010 and was the project

coordinator at Ridi Hydro Power Development Co. Ltd. for ~3 years and project manager at AHPC for four years.

Mr. Hasta Man Rai is the Project Manager of the company who has ~26 years of experience in hydro power sector in various position including Project Manager at Kabeli B-1 HEP for ~7 years.

Multiple hydropower projects being developed through associate companies

AHPC has been involved in operation and construction of hydropower projects by itself and through associate companies. Currently, AHPC and its associate companies has 57.30 MW operational hydropower projects which include 3MW PKHEP developed by AHPC itself and remaining 54.30 MW through associate companies. Further, AHPC and its associate companies has 28.94 MW hydropower projects under construction and 26.3 MW hydropower projects are in study phase.

Long track record in operating hydro power project coupled with comfortable financial performance with dividend paying history

AHPC's 3 MW PKHEP is operating since September 2003. AHPC has earned Rs.55 Mn revenue through sales of energy generated from 3MW PKHEP during FY19 which was slightly increased from Rs 52 Mn during FY18 due to increase in PLF. Other income (mainly include interest income, dividend income and profit on sale of investment) has been increased to Rs 42 Mn during FY19 from Rs 19 Mn during FY18. Its return on net worth has increased to 5.39% in FY19 from 2.12% in FY18. AHPC has been track record of paying dividend over the last 15 years in the range of 10-15% including 7.37% during FY19. AHPC's overall gearing ratio was low at 0.05x in FY19 and interest coverage ratio was high at 11.43x in FY19.

Further, AHPC's total income increased by 14.09% to Rs 60 Mn during H1FY20 over H1FY19, despite decrease in other income (Rs 19 Mn during H1FY20 over Rs 22 Mn during H1FY19), mainly due increase in operational PLF. AHPC's PAT increased by 8.66% to Rs.33 Mn during H1FY20 from Rs 30 Mn during H1FY19 due to increase in total income was higher than increase in operating and interest expenses.

Power purchase agreement with sufficient period coverage

AHPC had entered into PPA with Nepal Electricity Authority (NEA) on January 23, 2000 and November 25, 2018 for sale of entire power generated from PKHEP and KBHEP respectively. The PPA is signed for a period of 25 years for PKHEP and 30 years for KBHEP from the commercial operation date (COD) or till validity of Generation License (which are obtained on August 21, 2000 for PKHEP for 40 years and November 12, 2019 for KBHEP for 35 years), whichever is earlier. PPA period may be extended with mutual consensus during the last six month of validity. Required Commercial Operation Date (RCOD) of KBHEP is September 17, 2021 as per PPA.

PKHEP has two set of tariff rate. Current tariff rate for initial annual contract energy (i.e. 18.01 GWh) is Rs. 3.90 per kWh and Rs. 5.52 per kWh for wet and dry seasons respectively and for additional annual contracted energy (i.e. 1.54 GWh) is Rs. 1.95 per kWh and Rs. 5.52 per kWh for wet and dry season respectively. Tariff for KBHEP is Rs. 4.80 per kWh and Rs. 8.40 kWh for wet and dry season respectively with 3% escalation on base tariff for next 8 years.

Moderate counter party risk

AHPC is exposed to counter party payment risk pertaining to Nepal Electricity Authority (NEA), which has been making consecutive losses in past till FY 2016 and carry huge accumulated loss in its book. However, as per the annual report published by NEA, during FY19 (provisional), NEA earned profit of Rs 7,204.67 Mn (Rs 2,897.08 Mn during FY18). Further, during FY19, NEA achieved gross cash accrual of Rs 11,914.95 Mn (Rs 7,107.36 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 NEA is generating positive gross cash accruals. Further, NEA has been making timely payment to independent power producer (IPPs) in past. AHPC has been receiving payment from NEA between 25 to 35 days during FY19 and 4MFY20.

Financial closure achieved for the estimated project cost

The 9.94 MW KBHEP project's cost is estimated to be Rs. 1,979 Mn and the same is proposed to be financed in a debt-equity mix of 55.60:44.40 (i.e. Rs 1,100 Mn debt and Rs 879 Mn equity). Financial closure of Rs 1,100 Mn debt is achieved on Jan 29, 2020. AHPC has incurred Rs.139 Mn over the project till Jan 14, 2020 and the same is funded entirely through equity. Company ability to raise fund from propose right issue of Rs 998 Mn for funding of project cost would remain a concern.

Low power evacuation risk

The power generated from KBHEP along with other two projects (i.e. 25 MW Kabeli B-1 KEP and 9.99 MW Iwa Khola HEP) will be pooled at Kabeli B-1 HEP pooling station which will be further evacuated to Amarpur Substation through 4.9 km long 132 KV single circuit transmission line (currently power generated from 25 MW Kabeli B-1's project is being evacuated through this line). Construction of 3 km long 33KV transmission line from powerhouse to Kabeli B-1 HEP pooling station is within the scope of AHPC. KBHEP has obtained necessary approval to evacuate the power through this pooling station.

Shortage of power at present coupled with increasing demand of power in the country

As per the NEA's Annual Report for FY19, the current peak electricity demand is 1,320 MW. The total domestic installed capacity stands at 1,178 MW which includes 617 MW owned by NEA and 561 MW by private sector IPPs. Overall, during FY19, total energy demand was 7,584 GWh which was met by import of 2,813 GWh from India whereas balance was met by domestic generation. As per NEA, electricity

demand is in increasing trend and is expected to increase in future with increase in electricity consumption through the promotion of electric vehicles and replacing cooking gas with electricity, increase in access of population using electricity etc.

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.

About the Company

AHPC is a public limited company promoted by business persons having long experience in the hydropower and other sectors for setting up Hydroelectric Project (HEP) in the territory of Nepal. The company was established as on March 12, 1998 as a private limited company and later converted to public limited company as on August 27, 2009. It was listed in Nepal Stock Exchange dt. August 28, 2009.

AHPC has two run of the river hydropower project; 3MW operational Piluwa Khola Small Hydroelectric Project (PKHEP) at Sankhuwasabha District which has been in commercial operation since August 2003 and 9.94MW under construction Kabeli B-1 Cascade Hydroelectric Project (KBHEP) at Panchthar District. KBHEP will utilized water from tailrace of 25MW operational Kabeli B1 Hydroelectric Project of Arun Kabeli Power Ltd.

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 August 21, 2000 for PKHEP and November 12, 2019 for KBHEP, the project shall be handed, on whatever conditions the project is, to the Government of Nepal after expiry of Generation License, which is 40 and 35 years respectively.

AHPC has Rs 933 Mn paid up share capital at the end of FY19 and declared 7% bonus share in FY19. Mr. Guru Prasad Neupane (5.78% stake), Mrs. Sumitra Devi Neupane (4.43% stake), Mr. Amar Raja Tamrakar (3.60% stake), Mr. Jeevan Raj Shakya (2.64% stake), and Mr. Gagan Bir Singh Kansar (1.74% stake) are major shareholders of the company.

Brief Financial Performance during last 3 years:

(Rs in Mn)

Particulars	FY17 (A)	FY18 (A)	FY19 (A)	H1FY20 (UA)
Total Income	130	71	97	60
PBILDT	114	39	82	50
PAT	91	20	53	33
Gross Cash Accruals	102	33	66	39
RONW (%)	10.09	2.12	5.39	6.43
Total Gearing Ratio	-	0.06	0.05	0.08
Interest Coverage Ratio	731.16	9.41	11.43	10.63

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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.