



Project Summary Information

Date of Document: September 11, 2019

Project Name	Upper Trishuli-1 Hydropower project
Document Code	PD000085-PSI-NPL
Region	Federal Democratic Republic of Nepal
Sector/Subsector	Energy / Hydropower
Project Description	<p>The Upper Trishuli-1 Hydropower project (UT-1 or the Project) is a 216 mega-watt greenfield run-of-river hydropower plant on the Upper Trishuli River in Nepal. The Project is being developed by Nepal Water and Energy Development Company Private Limited (NWEDC), the Project Company, a special purpose vehicle incorporated under the laws of Nepal.</p> <p>The Project is developed under a 35-year (including five-year construction period) build, own, operate and transfer (BOOT) model. The Project Development Agreement (PDA) was signed between the Ministry of Energy, Water Resources and Irrigation and the NWEDC on Dec. 29, 2016. Under the PDA, the Sponsors will be responsible for the design, engineering, financing, construction, completion, commissioning, ownership, operation and maintenance and transfer of the Project.</p> <p>The Project will sell power to the Nepal Electricity Authority (NEA), the off-taker, under a 30-year Power Purchase Agreement (PPA). The PPA was entered between the NEA and the NWEDC on Jan. 28, 2018. Under the PPA, the NEA will buy the energy generated under a take-or-pay arrangement. The power will primarily be used for domestic consumption. The tariff is based on the standard feed-in-tariff for run-of-river projects in Nepal, which has a split tariff: one for the wet (summer) season and another for the dry (winter) season.</p> <p>The UT-1 project consists of a 100.5-meter (m) length, 30.9 m base width and a 30 m (founded on alluvium) high diversion concrete gravity dam in a narrow gorge located in the Trishuli River 275 m downstream of the confluence of the Langtang Khola (tributary) with the Bhote Khosi River, about 70 kilometer (km) to the north-east of Kathmandu. The diversion dam will create a small 2.1 hectares impoundment and divert via two intake tunnels each with a gate size of 3.25 x 6.5 m, up to 76 m³/s of water flowing through a 9.7 km long low-pressure headrace tunnel to a powerhouse with 3 x 72 mega-watt capacity turbines and returning the water to the Trishuli River approximately 10.7 km downstream of the dam. The Project will connect to a new Chilime-Trishuli transmission line via a 1.1 km long, high voltage extension from the UT-1 take-off yard. The Project</p>

	will be accessed via existing public roads; however, NWEDC is in the process of constructing a 11.84 km access road on the right bank of the river to link the dam and the powerhouse locations.
Objective	The objective of the Project is to reduce the acute power shortages in Nepal by increasing power generation capacity in the country to meet its power demand.
Expected Results	The expected results for the Project are: (a) increase power generation by around 1,427 gigawatt hours annually and (b) demonstration effect as the PDA and the PPA may become model project agreements for Nepal's hydropower sector. In addition, the Project will benefit the local economy and livelihood through employment generation and the establishment of a local skills training program. The Project-affected people will have the right to purchase up to 10 percent of the project company shares at par value and eligible households will receive 20 kilowatt-hours of free power each month.
Environmental and Social Category	Category A
Environmental and Social Information	<p>The UT-1 project will be co-financed with the International Finance Corporation (IFC), Asian Development Bank (ADB) and other development financial institutions and has been prepared in accordance with the IFC's Policy on Environmental and Social Sustainability (IFC Policy) and Performance Standards on Environmental and Social Sustainability (IFC PSs) (2012). AIIB is satisfied that: (i) the IFC Policy and IFC PSs are consistent with AIIB's Articles of Agreement and are materially consistent with AIIB's Environmental and Social Policy (ESP) and relevant Environmental and Social Standards (ESSs) and (ii) the monitoring procedures that IFC has in place are appropriate for the Project. Consequently, as permitted by the ESP, AIIB will apply the IFC Policy and IFC PSs to this Project.</p> <p>IFC's engagement began during the project development stage in 2012, as part of IFC's early project support through the IFC InfraVentures facility where IFC helped ensure that the Project's Environmental and Social Impact Assessment (ESIA) documentation was aligned with applicable World Bank Group (WBG) requirements. These efforts included but were not limited to the development of a robust environmental and social baseline, detailed impact and risks assessment, extensive stakeholder engagement and consultation, and development of management plans to adequately mitigate environmental, social, labor and occupational health and safety (ESHS) impacts and risks.</p> <p>In this context, IFC's review involved a detailed assessment of the completeness and quality of the Project's ESIA process, as well as related supplemental studies that were prepared as part of IFC's early engagement. The scope of IFC's review comprised, but was not limited to the following activities: (i) ongoing discussions with the Project Company's ESHS management and advisors during the 2013-2018 period, including hiring an independent environmental and social consulting</p>

(IESC) firm to act on behalf of the Lenders' group; (ii) review of planning documentation prepared for local approvals/permits, primarily consisting an ESIA (Regulatory ESIA-2012); (iii) scoping site visit performed in early 2013 to assess the necessary complementary ESIA studies and define the ESHS gaps that were required to be closed before formal project appraisal, resulting in a Scoping Reports (2013), the Supplemental ESIA and its related additional corrective actions; (iv) multiple field visits and stakeholder meetings and consultations in Kathmandu and the project site between 1Q2013 and 1Q2015, involving IFC E&S specialists and consultants; (v) a pre-2015 earthquake environmental and social appraisal site visit performed in April 2015 involving E&S specialists from the IFC and from other potential members of the Lenders' group expected at the time, together with the IESC firm; (vi) multiple post-2015 earthquake field visits and stakeholder meetings and consultations in Kathmandu and the project site between 1Q2015 and 2Q2018, involving IFC E&S specialists and consultants to update the ESIA studies to the post-earthquake reality (specially on the social components) and close the outstanding gaps identified in the supplemental ESIA, which resulted in the Updated ESIA 2018 documentation and (vii) the final environmental and social appraisal site visit in April 2018 involving E&S specialists from the IFC, ADB, the Multilateral Investment Guarantee Agency (MIGA), AIIB and FMO (Dutch Development Bank), together with the IESC firm.

Furthermore, multiple site visits were performed by IFC and specialized consultants during 2018 in relation to the cumulative impact studies and the Free, Prior and Informed Consent (FPIC) process. These interventions have included providing resources and expertise to accomplish Nepal's first FPIC process for Indigenous Peoples, a robust Cumulative Impact Assessment (CIA) of the Trishuli River basin, including a connectivity assessment, and post-earthquake relief and reconstruction support which contributed to continued engagement with project affected communities and social license to operate under difficult circumstances.

AIIB's environmental and social due diligence (ESDD) was initiated in April 2018 and benefited from the ESDD initiated earlier by IFC as described above. AIIB's ESDD included a review of the instruments, a joint site visit, consultation with the PAPs and local and national authorities. The key environmental and social risks and impacts identified during the due diligence concern involuntary resettlement affecting economic displacement of 154 families and physical displacement of 10 families; special considerations for Indigenous Peoples (IPs); impacts to aquatic biodiversity; vulnerability to natural hazards; health, safety and security risks to Project workers and communities and the Sponsor's capacity to manage such a complex Project in an environmentally and socially sensitive context.

	<p>These risks and impacts are addressed in a series of environmental and social studies and instruments, engagement with the Project Company, and communication among the lenders. The Project Company has prepared a specific Gender Action Plan to ensure women's participation in public meetings, awareness of Project activities and their associated health, safety and security risks, entitlement to project benefits and participation in its implementation and monitoring. Environmental and social undertakings issuing from all the E&S studies and instruments prepared for the Project, as well as requirements for capacity building for the Sponsors, EPC Contractor and sub-contractor required for their implementation are defined in an Environmental and Social Action Plan (ESAP), which is currently being finalized amongst the Lenders group and the Sponsors and would be reflected in the financing agreements.</p> <p>Consultation activities included public meetings in affected communities, focus group discussions, key informant interviews, meetings with other external stakeholders and governmental administration agencies. Extensive feedback from PAPs and broader stakeholders was collected, reviewed by the Project Company, its consultants and addressed in the environmental and social instruments, which are available in English and in many cases in Nepali, and can be found on the IFC's website (https://disclosures.ifc.org/#/projectDetail/ESRS/35701) as well as the Project Company's website (http://nwedcpl.com/disclosure).</p>
Cost and Financing Plan	<p>Total project cost: USD647.4 million Equity: USD194.2 million Debt: USD453.2 million AIIB: Senior loan of up to USD90 million</p>
Borrower	Nepal Water and Energy Development Company Private Limited
Sponsor	<p>Majority Sponsors: (i) Korea South-East Power Company Limited, (ii) Daelim Industrial Company Limited and (iii) Kyeryong Construction Industrial Company Limited Other Investors: (i) IFC and (ii) Bkesh Pradhanang (Local Partner)</p>
Estimated Date of First Disbursement	October 2019

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Date of Concept Decision	October 26, 2018
Date of Final Review Decision	April 9, 2019
Date of Board Approval	May 21, 2019

Independent Accountability Mechanism	AIIB's Project-affected People's Mechanism (PPM) will govern this Project. It has been established by AIIB to provide an opportunity for an independent and impartial review of submissions from Project-affected people who believe they have been or are likely to be adversely affected by AIIB's failure to implement the applicable environmental and social policy in situations when their concerns cannot be addressed satisfactorily through the Project-level GRM or the processes of AIIB's Management. For information on how to make submissions to the PPM, please visit the AIIB's PPM web page .
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