

## Environmental and Social Review Summary

Original language of the document: Spanish

Analysis Cut-Off Date: June 2019

### A. Investment Summary tab (provided by the Team Leader)

<b>Disclosed Date:</b>	August 30, 2019
<b>Project Name:</b>	San Bartolome
<b>Project Number:</b>	12209-01
<b>Investment Type:</b>	Investment loan
<b>E&amp;S Category:</b>	B
<b>Projected Board Approval Date:</b>	November 12 <sup>th</sup> 2019
<b>Company name (Borrower):</b>	PCH San Bartolomé S.A.S. E.S.P.
<b>Sponsoring Entity: (if any)</b>	Century Energy Corporation
<b>Sector:</b>	Infrastructure and Energy
<b>Financing Requested:</b>	US\$60,000,000
<b>Financing Currency:</b>	United States US Dollars
<b>Project Country:</b>	Colombia
<b>Team Leader:</b>	Olga De Narvaez
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#### Project Scope and Objective:

The San Bartolomé and Oibita hydroelectric projects (the “Project”) comprise the construction, operation and maintenance of two hydroelectric power plants in the municipalities of Oiba and Guapotá (approximately 149 km south of Bucaramanga) in the district of Santander. Both are run-of-the-river hydropower plants, with an installed capacity of 19.9 MW each that will together generate 280 GWh per year of clean energy. The projects will be connected to the National Interconnected System (SIN, for its acronym in Spanish) through an 11.4 km transmission line.

The Project cost is estimated at one hundred and twenty million dollars (US\$120 million). Construction began in September 2017 and will have an estimated duration of 32 months. The Project will contribute to increasing energy production in Colombia by (i) adding around 39.8 MW of renewable capacity or approximately 280 GWh/year to the national grid, which will decrease the

possibility of an energy recession; (ii) reducing carbon emissions and; (iii) allowing for a greater participation of the private sector in energy generation in Colombia.

The Project was declared as being of Public and Social Interest by the Ministry of Mining and Energy under Resolution 315 of November 10, 2016. Its execution is covered by Contract No. 001 of June 9, 2017, entered into by PCH SAN BARTOLOME SAS ESP and HMV Ingenieros Ltda.(HVM), in order to develop the Project either directly, through Servicios Ambientales y Geográficos SA (SAG) or its subcontractors (Consortio Oibita).

## **B. Environmental and Social Review Tab (provided by the SEG Officer)**

### **ENVIRONMENTAL AND SOCIAL REVIEW SUMMARY**

#### **1. Scope of the IDB Invest Environmental and Social Review**

The Project's initial Environmental and Social Due Diligence (ESDD) process began in 2017, and was updated between April and June 2019. Key documentation was reviewed in this process, including the Project summary, its Comprehensive Management System, the Environmental Study of the transmission line, environmental licenses, health and safety management and documentation, communications and records, property management records, evidence of stakeholder engagement and the implementation of Environmental Management Plans, as well as Environmental Compliance Reports, among others. Two site visits were made to the project (in May and June 2019) to observe the "early works"<sup>1</sup> that had been completed and to visit the only active work front (construction of the PCH San Bartolomé exit tunnel), touring catchment and discharge sites, work camps, conducting interviews with workers, landowners, the leaders of community organizations and officers of the municipal administrations.

PCH San Bartolomé has an Environmental Impact Assessment (EIA) licensed through administrative act DGL Resolution 030 of January 25, 2011.<sup>2</sup> The Project reports 2 environmental license modifications: (i) DGL Resolution 0471 of June 2, 2017 of the Regional Autonomous Corporation of Santander (CAS, for its acronym in Spanish), which authorizes the inclusion of a construction window for the tunnel, the access road to the tunnel window, the access road to the intake and two Zodmes;<sup>3</sup> and (ii) DGL 01021 of December 11, 2018, which includes changing the access road and expanding its width. Currently, PCH San Bartolomé is preparing the EIA to request an amendment of the environmental permit, to align and optimize the tunnel,<sup>4</sup> a cargo tank, and a 170-meter load tunnel to the tunnel entrance portal. PCH Oibita was similarly licensed under DGL Resolution 0783 of August 28, 2011.<sup>5</sup> The Company requested the CAS to authorize changes related to the alignment

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<sup>1</sup> "Early works" refers to the adequacy and construction of access roads, the construction of areas for the disposal of excavation waste (Zodmes, for its abbreviation in Spanish), adequacy of the catch basins located at the entrances and exits of the tunnels and collection works, 98% of which had been completed at the time of the site visit.

<sup>2</sup> Through DGL Resolution 0288 of April 11, 2013, the Regional Autonomous Corporation of Santander (CAS) authorized the transfer of the license (HVM Ingenieros Ltda. to PCH San Bartolomé SAS ESP).

<sup>3</sup> Excavation waste disposal area.

<sup>4</sup> 840 m reduction to be replaced by 630 m of free-flowing Box Culvert.

<sup>5</sup> CAS authorized the transfer of the environmental license (HVM Ingenieros Ltda. to PCH San Bartolomé SAS ESP) through DGL Resolution 0198 of February 28, 2014.

of the exit portal and the tunnel, the rotation of the engine house, the relocation of Zodme 1 and a new access route to the exit portal (pending CAS approval).

PCH San Bartolomé developed the EIA for the 115-kV transmission line, which will have an approximate length of 11.42 km and 26 towers, and filed it with the CAS on March 5, 2018. It was required to submit additional information. This information was sent on May 24, 2018, but to date, the CAS has yet to decide on it.

## **2. Environmental and Social Classification and Rationale**

The Project is classified as a Category B (medium risk) operation under IDB Invest's Sustainability Policy, since its impacts and risks are mainly confined to the Project's area of direct influence, are considered reversible, and can be managed using environmental and social management measures that are typical in the industry. The Project will generate impacts associated with landscape quality changes, land use changes, the disturbance of riverbeds and riverbanks, a decrease in plant cover, land acquisition and the creation of easements, and risks to the health and safety of the nearby population due to heavy machinery traffic and the particulate matter generated by the works.

## **3. Environmental and Social Context**

The San Bartolomé and Oibita hydroelectric projects are located in the municipalities of Oiba and Guapotá (Santander-Colombia). Their area of influence includes the rural settlements of Cabras, Centro, Gualilos, Mararay, Peñuela, La Bejuca, La Lajita, El Pedregal and El Volador, all of which are dedicated to livestock and agriculture activities. The Project has endeavored to strengthen stakeholder engagement (communities, organizations and municipal administrations) and has implemented voluntary social investment projects worth COP\$177,916,698<sup>6</sup> (approximately US\$55,000).

PCH San Bartolomé SASESP is implementing the measures and activities outlined in the Environmental Management Plans (EMPs) contained in each plant's EIA. To date, the Project has the demand, use or affectation and exploitation of natural resources permits, such as: surface water, discharge, forest use and zodmes concessions. Likewise, it has the respective approvals of the existing source quarries and beds for sand, gravel, and grit (close to the Project), and two applications for national closure, which are being processed by the Ministry of Environment and Sustainable Development (MADS, for its acronym in Spanish). To date, the Project has submitted three Environmental Compliance Reports (ECRs) to the CAS.

The Transmission Line Project will interfere with private property (estates), requiring the creation of easement strips on 32 plots for the tower sites, the cable layout squares and the stockyard. The required strips are currently used for extensive livestock farming, fish farming, and agriculture (permanent crops such as cocoa and plantain and temporary crops such as yucca, beans and corn). The main transmission line works are the adequacy of access roads and tower sites (including plant cover removal, grading, and excavation). Regarding the easement, the width defined in the

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<sup>6</sup> Distributed in the following activities: 1. Initial productive projects for COP\$107,056,659; 2. staff transportation and per diem COP\$28,396,439; 3. Incorporation of refreshment rooms in all nine (9) rural settlements for COP\$24,564,000; 4. Incorporation of a bus to Granja Fedecacao in San Vicente de Chucurí for COP\$2,874,600 and priority social investment for the year 2018 (Christmas, novenas and fairs) for COP\$12,375,000.

Technical Regulations for Electrical Installations (RETIE, for its acronym in Spanish), i.e. of 20 meters for 115 kV lines (10 m on each side of the line axis) was used.

The Project areas do not include areas designated as Forest Reserves, National Parks, or other areas that are part of the National System of Protected Areas (SINAP, for its acronym in Spanish). Nor do they overlap with Important Bird Areas (IBAs), Ramsar Sites of International Importance, Biosphere Reserves, World Heritage Areas or strategic ecosystems (moorlands and groundwater recharge areas).

#### **4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures**

##### **4.1 Assessment and Management of Environmental and Social Risks and Impacts**

###### 4.1.a E&S Assessment and Management System

The Project has an Environmental and Social Management System (ESMS) organized according to the programs that comprise the Environmental Management Plan<sup>7</sup> (EMP) included in the Project EIA. The company in charge of supervising the implementation of the EMP and preparing the Environmental Compliance Report, consolidating the Project environmental performance and supervising the measures implemented by the project contractors is SAG (Servicios Ambientales y Geográficos SA).

Although the ESMS answers directly to the EMP commitments of the environmental permits, it must align itself with Performance Standard (PS) 1, to reflect the current environmental, social, OHS and support areas (HR, Administrative Management, Contracts, among others) processes.

###### 4.1.b Policy

Both HMM and the Oibita Consortium adhere to the Comprehensive Management System Policy, which lays down the organization's commitment to quality management, the environment, occupational health and safety, the prevention of accidents, injuries, illnesses and property damage; pollution prevention and socio-environmental impacts; compliance with the applicable legislation and to contributing to human and sustainable development. The Project also has a Human Rights Policy, which emphasizes the observance, respect for and promotion of Human Rights in all stakeholder groups (collaborators, clients, suppliers and the community), specifying non-discrimination due to political affiliations, religious beliefs, sexual orientation, socioeconomic condition, the prohibition of forced labor, slavery and child labor. The Policies that comprise the ESMS are disclosed to the stakeholders.

###### 4.1.c Identification of Risks and Impacts

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<sup>7</sup> It includes, among the most important management programs: excavation materials, slopes, landscaping, explosives, water resources, liquid and solid waste, camps, emissions and noise, traffic, forest use, plant cover removal, wildlife, stakeholder engagement and information, hiring unskilled local labor, environmental education, SME empowerment, land negotiation, easement acquisition and mitigation of affected social infrastructure, archaeological prospecting and monitoring.

Both of the contractors responsible for the Project construction (HMV and Grupo Oibita) have their respective matrices for risk identification, assessment, and weighting, and for determining controls (action plan). Risks are classified on the basis of the following aspects: physical, safety, chemical, biological, psychosocial, public, transit, public health, natural phenomena, among others, considering the totality of the works (roadworks, civil works and tunnel construction).

Regarding the identification of climate change risks, taking into account extreme weather events,<sup>8</sup> PCH San Bartolomé has prepared the analysis "General Considerations of the Influence of the San Bartolomé Dam Project Works on Microclimatic Changes in the Study Area", which evaluates the effects of the increase in the Oibita River water sheet generated by the Project's temporary water storage areas involving the 5.6 meter high dam in the Oibita River.

The Transmission Line EIA reports on an analysis of alternative layouts based on the location of the required properties, under the following criteria: the identification of dwellings and the presence of water bodies and forests in the easement strip. Thus, during the on-site interviews, the owner of La Finca La Fortuna stated that the purchase-sale and opening of the access road to the PCH San Bartolomé catchment area (within his estate), included a new layout for the original road that incorporated his concerns and minimized the impact on his property and agricultural and livestock activities.

Despite the fact that PCH San Bartolomé is advancing the contracting process, the Project has yet to prepare an evaluation of the cumulative impacts that could be generated by Project activities in its areas of influence and an analysis that is able to identify ecosystem services in those areas through engagement with the stakeholder communities.

#### 4.1.d Management Programs

The EIA contains a set of programs and actions that aim to prevent, control and mitigate the adverse effects foreseen for the Project construction and operation phases. Each program also contains indicators for each proposed action and identifies the person responsible for its implementation and follow-up. The ECR for the period July–December 2018 reported a compliance level with the EMP programs of 97% for PCH San Bartolomé<sup>9</sup> and 93.17% for PCH Oibita<sup>10</sup>.

#### 4.1.e Organizational Capacity and Competency

The Project has trained and experienced personnel to handle the associated health, safety, security and environment (HSSE) issues. The commitment and teamwork between HMV and the Oibita Consortium (each with its senior HSSE coordinator) and SAG's leadership regarding the environmental and social supervision of the Project is evident.

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<sup>8</sup> Floods (torrential floods) and droughts, extended periods of warm temperatures, rainfall variability, among others.

<sup>9</sup> Programs that report a level of compliance of less than 100% (5 out of 23) are: Solid waste management (83.25%), forestry exploitation management (73.2%), hiring of unskilled local labor (93.4%), environmental and social relations education for contractors and workers (98%), and land negotiation (91%).

<sup>10</sup> Programs that report a level of compliance of less than 100% (8 out of 20) are: Land negotiation (96%), support for environmental education in roadside schools (57%), strengthening of community participation (88%), environmental education and on relations with the social environment for contractors and workers (96%), management and removal of vegetation cover (87%), forestry exploitation and management (75.3%), traffic management (75%) and management of noise and emission sources (89%).

SAG monitors and controls the implementation of the HMV Management System and at the same time supervises the implementation of the System by the Oibita Consortium (formed by Consorcio Morichal and ESP Construcciones). As part of the audit, SAG prepares monthly reports based on the fulfillment of the EMP indicators. HMV, for its part, is in charge of conducting follow-up audits of the Oibita Consortium.

#### 4.1.f Emergency Preparedness and Response

So far, the Emergency Prevention, Preparedness and Response Plan only covers the risks and impacts of those activities conducted in the Office Work Center (Medellín), not including operations in the work fronts and facilities during the different Project stages.

#### 4.1.g Monitoring and Review

The Project includes the following monitoring and review programs: Monitoring and review of the management of geological and geotechnical explorations; Monitoring of organic soil; Monitoring and control of erosive processes and mass removal phenomena caused or triggered by the Project; Monitoring and review of the environmental status of the currents and wastewater in the Project area of influence; Control of atmospheric emissions, air quality and noise; Control of solid waste management, treatment and disposal systems; Monitoring of surface water catchment during construction and operation; Monitoring and review of the plant cover; Monitoring and review of wildlife; Monitoring of the guaranteed flow; Monitoring of disclosure and unskilled labor engagement activities; Monitoring of stakeholder community engagement and strengthening activities; Monitoring of environmental education activities for workers and environmental management in local schools; Monitoring of land negotiation, easements and activities for the replacement or reimbursement of affected infrastructure and assets; Monitoring of the promotion of SMEs, Cooperatives and Associations in the Project area; and Monitoring and review of archaeological prospecting.

The Project, however, needs to update its ESMS to ensure complete monitoring and control of Project-generated impact mitigation and to minimize the risks relating to the fulfillment of legal requirements. This requires that an updated and consolidated matrix of all permits related to the demand, use and exploitation of natural resources be prepared and kept up to date.

#### 4.1.h Stakeholder Engagement

PCH San Bartolomé has had a social manager on site since 2013. When the preliminary works began in 2017, the social teams were expanded. As a result, social work, mainly the dissemination of information on the Project and its progress, has been relevant and constant throughout the life of the Project. The Project outreach process has included the nine (9) rural settlements in the area of influence, which the social team performs activities with at least once a month. In addition, three environmental watchdogs have been formed (one per municipality, with representatives elected by the community action boards and community leaders), which are registered with the Municipal Legal Representative's Office and are trained by the latter and the Project in matters relating to institutional strengthening. Since their creation in the second semester of 2018, they have carried out two activities and have been recognized by the CAS as the third informant in the Project's files.

During the interviews with the leaders of the *Juntas de Acción Comunal* (Community Action Boards - JAC), neighborhood groups, organizational representatives (environmental watchdogs) and the government agencies of Oiba and Guapotá, it was evident that there is clarity in the technical aspects of the Project, its characteristics and stages, its impacts, and the planned management measures. Likewise, start of works meetings have been held regarding the Project, and the progress status of the works is disclosed biannually. The Company has a customer service office through which it manages the Inquiries, Grievances, Claims and Requests (PQRS, for its acronym in Spanish) submitted by the community, the record of which can be found in the corresponding Records and Follow-Up Matrix.

## 4.2 Labor and Working Conditions

### 4.2.a Working Conditions and Management of Worker Relationships

The Project currently has 64 employees, all in a single construction front (that of the PCH San Bartolomé exit tunnel). Two women are employed as interns, one in the Environmental department and the other as an accountant trainee/general services assistant. The Project has gender-separated bathrooms both in its offices and at the construction front. The workforce that is not part of the direct area of influence of the Project has also been provided suitable accommodation and meals with proper health and sanitary conditions (worker camp located at the Oiba municipal seat). The Project provides transportation to facilitate access to the work front. There are two work shifts: the daytime shift, from 7:00 am to 7:00 pm, and the night shift, from 7:00 pm to 7:00 am, Monday through Sunday.

Both HMV and the Oibita Consortium have defined human resources policies and procedures, which have been published. The following policies and procedures published at the construction front should be noted: Comprehensive Management System, Alcohol, Drug, and Smoking Addictions; Strategic Road Safety Plan; Hygiene Regulations; and Internal Labor Regulations (ILR). The HMV ILR adequately defines the employment terms and conditions, working hours, wages, penalties, workplace harassment, etc.; including non-discrimination, and clearly states the sanctions to be applied to anyone who restricts the freedom of trade union membership. The Project, however, lacks a single Human Resources policy, since neither HMV nor its contractors have a specific policy in this regard. This unified policy shall include workers' benefits.

The Project has an internal grievance mechanism consisting of a mailbox located at the front of the building through which employee PQRS are answered, and through the Joint Committee on Occupational Health and Safety (COPASST, for its acronym in Spanish).

Although the ILR refers to freedom of labor union membership, no trade or labor unions have been formed in the Project.

PCH San Bartolomé does not yet have a retrenchment plan.

The procedure for hiring (qualified and unqualified) local labor for the Project is performed through the Caja Santandereana de Subsidio Familiar (CAJASAN, for its acronym in Spanish), an institution



that manages the registration form available in the Community Service offices and in the mobile classroom that regularly visits the municipalities and facilitates such registration process.

#### 4.2.b Protecting the Workforce

The ILR stipulates the conditions for work performed by minors under the age of 18; however, the Project has not hired minors. The Project's Human Resources Policy currently lacks a statement detailing worker benefits and an explicit prohibition of forced labor.

The Project implements Safe Work Analyses (SWA) in its activities. This practice must be strengthened, however, to ensure that all high-risk activities are conducted correctly. Likewise, fast access to restricted locations in the event of an emergency must be guaranteed (for example, a plant with diesel generators). Finally, there is a need to strengthen the monitoring of the proper use of PPE by workers and the identification of risks associated with the security personnel assigned to the Project, as well as the implementation of a Human Rights training plan.

#### 4.2.c Occupational Health and Safety

The Project currently records zero accidents and one incident, which resulted in the implementation of an action plan and an investigation. According to local regulations, the risk and hazard matrix is updated every 6 months or in the event of accidents; however, HMV has updated it every month. The Project has a Hazard Identification, Risk Assessment and Control Definition (IPVRDC, for its acronym in Spanish) matrix that consolidates the most representative risks for on-site and office personnel and implements relevant promotion and management programs for protecting the workforce.

#### 4.2.d Workers Engaged by Third Parties

The Project monitors and reviews the performance of its contractors. There was no evidence of contractual assurance, however, to ensure that workers (contractors and workers engaged by third parties) have a clear understanding of all employment terms and conditions.

#### 4.2.e Supply Chain

The Project has implemented a procurement procedure and a supplier screening form that considers environmental aspects and compliance with the requirements set forth in the Occupational Health, Safety, and Environment Manual for contractors. This procedure has yet to be streamlined with the ESMS in such a way as to enable monitoring its supply chain (for example, the quarries).

### 4.3 Resource Efficiency and Pollution Prevention

#### 4.3.a Resource Efficiency

The Project has five-year programs for the efficient use of water and water savings (PUEAA, for its acronym in Spanish) for the construction phase of the Oibita and San Bartolomé PCH. The site visit



revealed the control that is carried out when collecting data from the flow meters. The Project, however, has yet to adopt a procedure to evaluate, through the proposed indicators, the efficiency of the measures defined in the programs submitted by HMV and the Oibita Consortium; nor has it performed a comparative analysis of the consumption data recorded to determine the efficiency of the measures implemented.

Drinking water for human consumption is supplied in the form of bottled water by authorized companies.

The Project's solid waste management fulfills the measures set forth in the EMP and complies with Colombian regulations. However, waste management has yet to be consolidated as part of the ESMS. At this time, the Project does not require that its contractors and subcontractors issue specific certifications for the management, treatment, and final disposal of solid waste. Likewise, the procedure for the procurement of goods and services lacks criteria to ensure that hazardous materials are replaced with less polluting materials and that internationally banned hazardous materials (e.g. the replacement of substances that deplete the ozone layer) are not used, as applicable.

With regard to the transmission line project, both industrial and domestic water requirements are minimal; therefore, no surface water concession permits are required from the CAS. The Project foresees that water must be purchased from the public services companies “Corporación de Servicios de Acueducto y Alcantarillado del Municipio de Guapotá – CORAGUAS” and “Empresa Municipal de Servicios Públicos de Oiba - Oibana de Servicios Públicos EICE.”

The Project will require neither a domestic nor a non-domestic wastewater discharge permit during its construction and operation stages. The construction of the line requires the occupation of two watercourses associated with towers T1 CS and T7A, located within the protected area of two bodies of water and forest harvesting. These permits are being processed by the CAS. The fact that the MADS is processing the application for closure associated with this activity submitted by the Project was confirmed.

Hydroelectric projects and the transmission line do not require an atmospheric emissions permit. The EMPs, however, consider management measures to reduce the effects of these emissions on air quality (including greenhouse gases) and to reduce noise. To date, the Project emission sources have not been identified (e.g., combustion equipment such as heavy machinery, emergency plants, vehicles, air conditioning systems).

#### **4.4 Community Health, Safety and Security**

##### 4.4.a Community Health and Safety

The adequacies made by the Project to rural roads (for example, filling and compaction, road surfacing, installation of gabions and bed widening) are perceived by the community as improvements to their safety and well-being. The dam design ensures an ecological guaranteed flow to the communities located between the catchment area of the San Bartolomé PCH and the

discharge of the Oibita PCH. The Project anticipates suspending water collection during periods of severe drought so as not to affect this flow.

The design of the powder magazine ensures that, in the event of an accident or uncontrolled detonation of the tunnel blasting material, the impact on both workers and the community will be minimal. The transport and delivery chain of the blasting material is coordinated by the *Batallón Socorro del Ejército Nacional* (National Army Relief Battalion). The community is never exposed to it.

The Project lacks a matrix to identify the risks and impacts of its activities on the community within its area of influence. Moreover, there is no evidence that the Project's emergency preparedness and response plan has been provided to the community to allow for its involvement and active participation, as well as the active participation of local emergency response bodies, during the construction and operation stages. This includes the execution of possible critical scenarios drills (e.g. a traffic accident during the construction stage or a sudden increase in the body of water during the operation stage) and possible impacts on the health of the community.

#### 4.4.b Security Personnel

The Project currently has private security, particularly at the tunnel construction site. However, there is no evidence the Project has disclosed its guidelines for stakeholder engagement and its Policies, particularly its Human Rights policy, to the private security team.

### 4.5 Land Acquisition and Involuntary Resettlement

#### 4.5.a Overview

The construction of the San Bartolomé PCH considers the intervention of 12 properties: seven of them have already been negotiated and formalized by public deed; two have private contracts pending the formalization of the deed; and three are being negotiated. Two properties were fully acquired in order to build the engine house and ancillary works, which involved the intervention of a house (La Ceiba property) and caused physical displacement of a family, who was provided with technical and legal support during the transfer process.

The Oibita PCH will require 10 plots (6 negotiated and registered in the name of PCH San Bartolomé and 4 negotiated with a private contract pending the formalization of the deed). Of the 10 properties, 6 were purchased in their entirety for the engine house works, access roads and ancillary works, with no physical displacement involved. In terms of infrastructure, two watering holes (La Esperanza property) were intervened, which were replaced and given financial compensation in the purchase and sale agreement.

The construction of the Transmission Line will require the creation of easement strips that will affect 32 plots. The Project has 32 appraisals prepared by ALIANZA Inmobiliaria, affiliated to the Santander real estate market. This process identified the boundaries of each easement, drew up a census of owners, and compiled an inventory of improvements. PCH San Bartolomé is currently developing its relationship with the property owners and waiting for its environmental license. Having obtained

the environmental license, the formal financial offer, the commercial conciliation and the creation of the easements will be undertaken by means of a public deed registered with the *Oficina de Registro e Instrumentos Públicos* (Registry of Public Instruments). The payment of the easement will be for one time only, due to the permanent land use, rights of use and property access limitations imposed by the Project operator.

The Project's Grievance Mechanism extends to PQRSs resulting from the land acquisition process. The response time cannot exceed 15 business days.

#### 4.5.b Displacement

The only physical displacement produced by the Project was related to one family on the La Ceiba estate. The family was provided judicial and legal support that involved conducting title searches, studying the deeds of the selected property (lot), managing the processing of the construction license with the Municipal Planning Department and registering the ownership of the property with a Notary Public, while the technical support provided consisted of evaluating the infrastructure of the dwelling during its construction and verifying its habitability before relocation. At the time, the family expressed its desire to be close to their children, who live in the municipal capital of Oiba. The Project also helped the family to identify plot options to invest the compensation received for the purchase of the La Ceiba property. Finally, the family decided to purchase a plot at the Municipal capital of Oiba to build their three (3) story house. The family currently lives on the first floor of the dwelling and rents out the second and third floors.

## 4.6 Biodiversity Conservation and Natural Habitats

The Project is in the process of obtaining the respective permits from the MADS to lift the closure;<sup>11</sup> it has the necessary management measures for forest harvesting and is awaiting the approval of the compensation areas for this harvesting. It also has environmental matrices of the legal requirements to obtain and modify environmental licenses in order to control and monitor compliance with the requirements of the Environmental Authority. Nevertheless, a consolidated matrix on the total areas subject to forest harvesting, closure permits (national and/or regional, as appropriate) required by the Project and environmental compensation areas has not been provided for as part of the ESMS.

The Project has a technical rationale (under Colombian regulations) for locating the transmission line towers T1 CS and T7A on the 30m buffer zone, which is based on an alternatives analysis that included the alternatives that generated the fewest environmental impacts, i.e. avoiding the felling of trees, setting maximum distances from the watercourse, minimizing possible voltages to the San Bartolomé portico in more stable sites and in sites that have already been intervened. Even so, the Project is in the process of obtaining the environmental license for the transmission line.

## 4.7 Indigenous Peoples

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<sup>11</sup> Ministry of Environment and Sustainable Development.

The Project will not affect indigenous reservations or collective territories, nor does its area of influence overlap with ethnic communities (Official Letter OFI08-3601-DET-1000 of February 12, 2008 and certifications No. 1250 of September 5, 2013 and No. 1189 of July 11, 2014, Official Letter No. 20152173930 of September 9, 2015 and Certification No. 0210 of March 21, 2018).

#### **4.8 Cultural Heritage**

PCH San Bartolomé, through its contractor (HMV Ingenieros) and according to the work schedule, has been implementing the activities and measures set forth in the Archaeological Management Plan, which was approved by the Colombian Institute of Anthropology and History (ICANH, for its acronym in Spanish), in the construction phase of the Small Hydroelectric Power Plants. In the case of the Transmission Line, the ICANH issued Authorization No. 6972 of November 21, 2017, to carry out archaeological asset intervention works. The archaeological potential of the project areas is low. In the event a chance find is identified during the construction stage, PCH San Bartolomé shall execute the established protocol.

#### **5. Local Access of Project Documentation**

The documentation related to the Project can be accessed at the following link:  
<https://www.h-mv.com/Lineas/proyectedetalle.aspx?Id=205&Lang=es-CO>

#### **6. Environmental and Social Action Plan**

The Project's Environmental and Social Action Plan (ESAP) is summarized below:

### Environmental and Social Action Plan (ESAP)

No.	Aspect	Action	Product	Completion Date
<b>PS 1: Assessment and Management of Environmental and Social Risks and Impacts</b>				
1.1	Environmental and Social Assessment and Management System	Unify the ESMS to streamline the current processes of the environmental, social, OHS and support areas (HR, Administrative Management, Contracts, Purchases, Supply Chain, among others), including control and monitoring processes.	Unified ESMS Manual.	120 days after the first disbursement
		Disclose the ESMS to project workers and associated key stakeholders (e.g. contractors and subcontractors).	Preliminary Environmental and Social Management System for the San Bartolomé Project.	Prior to the first disbursement
			Evidence of the disclosure of the ESMS.	Biannually, during the life of the Project
			Signed Policies.	120 days after the first disbursement
1.2	Identification of Risks and Impacts	Prepare the evaluation of the cumulative impacts that could be generated by Project activities in its areas of influence, include the environmental management measures to be implemented and incorporate the results in the Project's comprehensive impacts and risk matrix. The resulting measures shall be incorporated into the Project ESMS.	Cumulative impact assessment document and updated risk identification and assessment matrix incorporated into the ESMS.	Second semester of 2019
1.3	Management of Ecosystem Services	Perform an analysis that allows for identifying the ecosystem services in the Project areas of influence, including environmental management measures for those ecosystem services affected by the Project.	Document with ecosystem services identification analysis and updated risk identification matrix incorporated into the ESMS.	First semester of 2020
1.4	Emergency Preparedness and Response	Prepare a Project-specific Emergency Prevention, Preparedness and Response Plan that includes the operation of the work fronts and the Project facilities.	Emergency Prevention, Preparedness and Response Plan.	Prior to the first disbursement
1.5	Monitoring and Review	Prepare and keep updated consolidated matrix of all permits related to the demand, use and exploitation of natural resources.	Matrix and records of permits related to the demand, use and exploitation of natural resources.	During construction
<b>PS 2: Labor and Working Conditions</b>				
2.1	Human Resources Policies and Procedures	Define and unify a Project-specific Human Resources Policy that details worker benefits and expressly states the non-use of forced labor.	Human Resources Policy and evidence of its disclosure.	30 days after the first disbursement
2.2	Retrenchment	Generate and document retrenchment plans.	Project Retrenchment Plan.	During the construction stage
<b>PS 3: Resource Efficiency and Pollution Prevention</b>				
3.1	Program for the efficient use and savings of water and energy	Prepare a comparative analysis of the consumption data recorded to determine the efficiency of the measures implemented.	Comparative analysis of water and energy consumption data.	Biannually, during the life of the Project
		Implement the efficient use and savings of water and energy programs during the operation stage and streamline them with the ESMS, including the respective measures and indicators for their monitoring and control.	Efficient use and savings of water and energy programs for all stages of the Project streamlined with the ESMS.	Prior to the first disbursement
			Evidence of having implemented the measures.	During the life of the Project
		Document that the public service companies from which water will be purchased during the construction of the transmission line have industrial use approvals.	Records of industrial water use approval.	Prior to the start of construction of the transmission line
3.2	Efficient use of resources	Incorporate a consolidated Waste Management Plan as part of the ESMS, including the criteria of the certifications provided by contractors, the procedure for the procurement of specific goods and services with criteria to ensure that hazardous materials are replaced and for the disposal of hazardous materials, as applicable.	Solid Waste Management Plan incorporated into the ESMS.	Prior to the first disbursement
3.3	Greenhouse Gases	Identify of gas emission sources and perform a basic estimation of Greenhouse Gas (GHG) emissions .	Estimated GHGs.	During construction

No.	Aspect	Action	Product	Completion Date
<b>PS 4: Community Health, Safety and Security</b>				
4.1	Community Health and Safety	Comprehensively identify, update and document all possible risks and adverse impacts related to the communities in the area of influence for each stage of the Project life cycle, including design, construction and operation.	Updated risk identification and assessment matrix.	Prior to the first disbursement
		Disclose to the communities the hazards and assessment of the risks to which they are exposed during the construction of the Project.	Evidence of the disclosure of risks to the communities (e.g. training, attendance records, evaluations, etc.).	During the construction stage
4.2	Emergency Preparedness and Response	Prepare an Emergency Prevention, Preparedness and Response Plan that considers the possible risks and impacts associated with the Project (office, work fronts and facilities during the different stages), including procedures and plans that involve the active participation of local emergency response bodies and the community within the DAI.	Emergency Prevention, Preparedness and Response Plan, procedures and plans.	Prior to the first disbursement
<b>PS 5: Land Acquisition and Involuntary Resettlement</b>				
5.1	Comprehensive monitoring plan and post-resettlement evaluation	Prepare a comprehensive monitoring plan for the resettled family (La Ceiba property), including psychosocial support that prepares the family for the post-grieving process and adaptation to the new home.	Comprehensive monitoring plan and evidence of its implementation.	Second semester of 2019
5.2	Property Acquisition Plan	Implement the Property Acquisition Plan on the basis of the vulnerability status identified for each family and the compensation measures agreed to through the creation of the easement for the transmission line.	Evidence of its implementation.	During 2020
		Inform the owners about the start of the construction stage and fulfill the agreements entered into by the parties.	Evidence of dissemination and socialization.	During 2020
<b>PS 6: Biodiversity Conservation and Sustainable Use of Natural Resources</b>				
6.1	Forest harvesting permits and environmental compensation	Prepare a consolidated matrix of all areas subject to forest harvesting authorized for the Project, areas to be compensated, closure areas and their requirements including efficiency and effectiveness indicators of the mitigation measures set forth in the EMPs, as appropriate.	Program with efficiency and effectiveness indicators	First semester of 2020
			Consolidated matrix of all authorized areas subject to forest harvesting, compensation and closure.	Second semester of 2019

## 7. Contact Information

For project inquiries, including environmental and social questions related to an IDB Invest transaction please contact the client (see **Investment Summary** tab), or IDB Invest using the email [divulgacionpublica@iadb.org](mailto:divulgacionpublica@iadb.org). As a last resort, affected communities have access to the IDB Invest Independent Consultation and Investigation Mechanism by writing to [mecanismo@iadb.org](mailto:mecanismo@iadb.org) or [MICI@iadb.org](mailto:MICI@iadb.org), or calling +1(202) 623-3952.