Environmental and Social Review Summary (ESRS)
Sigora Microutility Project – Haiti

Original language of the document: English

1. General Information and Overview of Scope of IDB Invest E&S Review

In 2015, Sigora International and its subsidiary Sigora Haiti (hereafter "Sigora" or "The Company") began work on a plan to electrify up to 250,000 households in Haiti over a period of seven years, which equates to approximately 15 percent of the total off-grid population of the country. Phase 1 of the Sigora Haiti Micro-Utility Project (hereafter "The Project") involves electrification of 21,600 households (about 110,000 people) in the northwest communities of Môle Saint Nicolas, Mare Rouge, Jean Rabel, and Bombardopolis. In addition, Sigora plans to build a second, independent, microgrid approximately 200 km south of Cluster 1 in the municipalities of Liancourt, Petite Rivière de l'Artibonite and Dessalines, with a total capacity of approximately 5.0 megawatts (MW). Construction of the Project began in 2016 and is expected to be completed by mid-2020.

The Sigora green micro-utility is a unique business model that leverages specialized cloud-connected grid management technology, pre-paid payment solutions, and tariff structures designed to promote small business development.

As of May 2018, the following components of the Project have been completed:

- Môle Saint Nicolas: i) 200 kW of diesel generation (2 gensets); ii) 208 kW of solar generation; iii) 1,055 household and business connections; and iv) 24 kilometers (km) of distribution or transmission lines. Also, as part of its corporate social responsibility (CSR), Sigora has provided free electrification of the health clinic in the village and the installation and 100 streetlights.
- Jean Rabel: i) 780 kW of diesel generation (2 gensets) owned by municipality; ii) 250 kW diesel generation, owned by Sigora Haiti; iii) 2,457 household and business connections; and iv) 13 km of transmission lines. In a similar fashion as in Môle, Sigora provides free electrification of one public building and 100 free streetlights.
- Bombardopolis: i) 245 kW of diesel generation (1 genset), owned by municipality; ii) 25 kW of diesel generation, owned by Sigora Haiti, and ii) 390 household and business connections. Also, Sigora provides free electrification of one public building of choice (the police station) and 100 streetlights.

As part of the Project, a 3 kW of solar generation facility, lead acid batteries (with charge controller and inverter), 1 km of distribution lines, and 50 household connections, with provision of subsidized electricity were also completed at the community of Presqu'ile.

2. Environmental and Social Categorization and Rationale

The Project has been classified as a Category B (Medium-Risk) operation according with BID Invest´s Environmental and Social Sustainability Policy since it will likely generate, among other, the following impacts: i) potential fuel and oil spills caused by the use of machinery and transport vehicles and diesel plants; ii) erosion caused by surface runoff during rains or wind; iii) pollution of superficial and ground water caused by fuel and oil spills; iv) dust produced by wind erosion caused by exposition of soil materials; v) emissions of GHG to the atmosphere caused by the use of machinery and transport vehicles and indirect carbon emissions and air pollution from energy losses during transmission; vi) risk to birds and bats; vii) electromagnetic fields from transmission lines that might affect neighboring communities; viii) increase in health and safety risks due to construction and electrical interconnection activities; ix) visual impact of transmission lines and wind turbines; and x) potential impact to historical buildings and tourism. These impacts are deemed to be of low to medium intensity.

The following Performance Standards have been triggered by the Project:

PS1: Assessment and Management of Environmental and Social Risks and Impacts
PS2: Labor and Working Conditions
PS3: Resource Efficiency and Pollution Prevention
PS4: Community Health, Safety, and Security
PS5: Land Acquisition and Involuntary Resettlement
PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
PS 8: Cultural Heritage

3. Environmental and Social Context

The Project is situated in the Bas Nord-Ouest Department of Haiti, in the municipalities of Môle-Saint Nicolas, Jean Rabel and Bombardopolis, which also contains the towns of Môle Saint-Nicolas, Jean Rabel and Bombardopolis.

The Nord-Ouest Department has a mean temperature of 26.5°C. Its mean precipitation is low compared to the rest of the country and ranges between 750-1,250 millimeters (mm) per year. Surface water is concentrated in a few rivers and wetlands and water availability in this area is limited, as many of the rivers dry up for most of the year and flow only during the rainy season. Many of the surface water sources are either contaminated or saline.

Haiti's natural biodiversity has been heavily impacted by deforestation[1] that started during the French colonial period, continues up to the present days, and has caused severe erosion in the mountains. The original (native) forests' cover is under 1.5%.

Môle Saint Nicholas, Jean Rabel, and Bombardopolis are in the ecoregion Hispaniola dry forest. Some mangroves can be observed in places around the coast, although many mangrove and coral

[1] Lumber, agricultural expansion and charcoal production

reef ecosystems are highly degraded due to the excess sedimentation caused by erosion in upper parts of the watershed. A significant coastal habitat is located from Fort Liberté to Mole St Nicolas.

Haiti is highly vulnerable to multiple natural hazards including hurricanes, earthquakes, flooding and landslides. Historical data show that about 70% of natural disasters in Haiti have been tropical storms and hurricanes, but that the most dangerous disasters in terms of number of people affected are earthquakes.

Most people in Haiti live in poverty. The unemployment rate of 36% in urban areas and 49% in rural areas[2]. Primary livelihood activities in Haiti include production and commercialization of charcoal, and agriculture of maize, rice, bananas, tubers, horticulture, beans and bushes. The main socioeconomic activities in the Nord-Ouest Department are charcoal and maize production. Artisanal fishing is also an important activity especially in coastal communities.

The average household size is approximately of 4.4 people; 60% of them have men as heads of the families and a third part of the latter have members under 15 years old[3]. In terms of education, most people in Haiti have completed primary school or primary and secondary school (83%), but only 6% of women and 8% of men attended university or have technical careers.

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

4.1 Assessment and Management of Environmental and Social Risks

Sigora has in place many of the components of an Environmental and Social Management System (ESMS) but lacks a structured methodology and process to ensure that environmental and social risks are managed consistently and on an ongoing basis. Roles and responsibilities for implementation of environmental and social management policies and processes have been outlined but not yet implemented. Specific measures for tracking and monitoring environmental and social (E&S) performance need to be developed.

The Project does not have a stakeholder engagement plan or grievance mechanism.

Sigora has not yet developed a clear overarching policy defining objectives and principles for the management of its E&S impacts, including outlining of responsibilities for execution of the assessment and management process.

4.1.a.i Direct and indirect impacts and risks

When Sigora Haiti initiated construction of the Project (2015), there was no Haitian legislation in place that required the preparation of an ESIA for such projects. It was only 2016, when the National Regulation Authority for the Energy Sector (Autorité Nationale de Régulation du Secteur

[2] Source: World Bank

[3] Sources: Haitian Childhood Institute and the Food and Agriculture Organization (FAO)

Énergétique -ANARSE) was created, that this requirement was established for all energy projects to be implemented from that date onwards.

For Sigora to comply with IDB Invest's Environmental and Social Sustainability Policy, an Environmental and Social Evaluation (ESE) was prepared for the portion the Project to be financed by IDB Invest. This study includes impact identification, assessment, and management. It also identifies most of the relevant direct, indirect and cumulative impacts of the Project. However, the ESE does not include an analysis of Project alternatives, since at the time it was undertaken, most of the Project's components were either already built or in the process of being so.

The Project ESE proposes an Environmental and Social Management Plan (ESMP) according to the Project's scale and level of E&S impacts. Sigora has currently a set of operational procedures, standards and related supporting documents appropriate to the scale of the Project but has not yet fully developed a waste management plan, an environmental and social monitoring plan, and a grievance mechanism.

The Project's organizational structure presented by Sigora during the Environmental and Social Due Diligence (ESDD) lacks definition of roles and responsibilities for ESMS implementation.

Sigora has a Hurricane Preparedness Plan, which includes measures to ensure the health and safety of its employees, to reduce damage to grid equipment and infrastructure, to safely restore grid function after blackouts or damage, and to assist the local population in adequately preparing and responding to hurricane threats. However, it has not yet developed emergency preparedness and response plan to other hazards such as earthquakes, tsunamis and landslides.

Sigora recently established a U.S.-registered non-profit organization called HADPRE[4], which has three lines of action: i) renewable energy education and training; Establishment of a training academy in the renewable energy sector to provide on-going career training in renewable energy and electrification as well as education for promising youngsters with limited opportunity; ii) disaster preparedness and response to natural hazards such as hurricanes, earthquakes, droughts and by preparing communities in response, rescue and recovery efforts during an emergency; and iii) community empowerment through entrepreneurial training and education to leverage new access to energies for small business development with potential micro-finance option and special focus on gender equality in renewable energies.

The ESMP developed as part of the ESE includes proposed monitoring indicators, identification of responsible parties for monitoring, and frequency of monitoring activities.

In May 2018, the Project underwent a process of stakeholder engagement (customers, vendors, the municipalities in which they operate, and national government ministries and agencies) as part of the ESE process. This engagement consisted in open public workshops and interviews with vendors in Môle Saint Nicolas, Jean Rabel and Bombardopolis, and aimed at disclosing information

[4] Humming Bird Academy for Disaster Preparedness and Renewable Energy (HADPRE) was registered as a 501c3 non-profit organization, sister organization of Sigora.

about the Project and its likely E&S impacts, and consulting with the community to obtain their feedback, suggestions and concerns. The process also included interviews with the municipal authorities and selected relevant national government entities.

The current level of stakeholder engagement for the Project appears to be adequate with the relatively low potential for significant adverse impacts. However, Sigora has not yet developed and implemented a stakeholder engagement plan (SEP) to better undertake, document and monitor engagement activities.

The Project has not yet adopted a mechanism and process to consistently receive, document, track, and respond to external stakeholder concerns. Neither has put in place a process of continuous disclosure of information to the affected communities.

4.2 Labor and Working Conditions

Sigora's human resources (HR) policies are substantially in compliance with both the Haitian Labor Code (Haiti Code du Travail, 1961, Modifié) and PS2. Additionally, the Company has established Recruitment Guidelines, a Gender Equity and a No-Harassment Policy (also covering non-discrimination) that are also compliant with PS 2. It also has a preliminary version of Employee Handbook that is being revised before it is adopted.

Sigora currently employs 51 local full-time permanent staff, of which 15 (30%) are women. A total of 21 local vendors are also indirectly employed, of which 16 (76%) are women. The Company hires temporary construction workforces from the communities during construction phases, typically averaging 72 workers of which 10-15% are female, also in leading positions.

Contractors hired for transportation or for short-term small construction projects on auxiliary facilities are hired informally, without a written contract. As such, and even though the draft Employee Handbook and the Haitian Labor Code expressly prohibit forced labor and the use of child labor, there are no means (other than word of Sigora's personnel) to assure that there is no forced or child labor in the supply chain, or that the Project adheres to adequate safety practices.

Although not forbidden, none of Sigora Haiti's permanent staff are currently members of a workers' organization. While aspects of retrenchment, such as severance pay and dismissal notification, are part of the Company's HR policies, Sigora does not currently have a specific retrenchment plan. However, a first approach to a worker grievance mechanism as required by PS2 and by the Haiti Labor Code has been included in an Employee Handbook.

Sigora has adopted an Environmental Health and Safety (EHS) Plan that addresses the primary health and safety (H&S) risks associated with the Project, such as working from heights and machinery operation. All employees receive a daily H&S orientation training, and PPE is checked out to workers.

According to Sigora's site personnel, a Live Power Line Safety procedure exists, however it was not available for review. Even though the tension of the transmission and distribution grids is relatively low (22.8 kV and 240 V respectively) and do not represent a hazard for the population,

Sigora has not conducted yet electro-magnetic fields (EMF) monitoring or developed an EMF safety procedure specially to assess the exposure of workers when they perform activities with "live" lines.

Even though during the ESDD visit, it was observed a good use of PPE (hard hats, vests and safety glasses) by technicians and verified equipment that was stocked to be used, no use of hearing protection was observed at the facilities housing the generators, specially at the Jean Rabel generating facility where administrative staff spend extended periods of time in the building that houses the diesel generators.

Sigora has recently adopted an Employee Handbook that spells-out some labor-related aspects, such as the following: equal employment opportunity; non-discrimination for people with disabilities; employee relations philosophy; no harassment; categories of employment; new employee orientation; wages, bonus and benefits; vacations and holidays; sick days; bereavement; maternity leave; medical insurance; retirement plan; standards of conduct; working hours; training and safety at the workplace (violence, housekeeping, no use of weapons, substance abuse, emergencies, etc.).

4.3 Resource Efficiency and Pollution Prevention

Sigora Haiti is working towards shifting most of its power generation from diesel to renewable energy sources, primarily solar and, potentially, wind power. Given the move towards renewable energy, the expected resource inputs for the Project are anticipated to decline considerably. The existing generators will be maintained in Jean Rabel and Bombardopolis as a back-up to the micro-grid and, therefore, minimum amounts of diesel will be required for the long-term operation of the Project.

The main use of water is for cleaning and sanitation of the small offices Sigora maintains at Jean Rabel, Bombardopolis and Môle. Water used by the Project is trucked to the site and does not impact the local community water supply.

The Project's current estimated annual emissions of greenhouse gases (GHG) is estimated to be bellow 25,000 tons of CO_2. Its primary sources are the diesel-operated facilities at Môle Saint Nicolas, Jean Rabel and Bombardopolis. However, this figure will most likely drop in the future as the solar and wind facilities will kick-in to the system along with battery energy storage arrangements. The GHG emissions from routine transportation and construction machinery is considered extremely low.

During the ESDD site visit, it was observed that the power generation facilities located at each of the three communities needed to enhance the capacity of the spill control pools to be able to contain a potential leak or spill of the diesel storage facilities. Also, it was noted that Sigora, for the time being, does not have a spill prevention and clean-up procedure in place to manage spills of potentially hazardous materials (basically fuels and oils).

Waste oil produced in the generation plants is collected in metal drums which are placed in a storage facility that lacks the appropriate containment and protection from natural elements (rain,

wind). When drums are filled they are given to other companies or individuals, who reportedly use it for lubricant oil on machinery. The process has no records of how much oil is produced (even though the quantities are relatively small), how much is given to these third parties and how the residue has been disposed or utilized.

Management of wastes in Haiti is the responsibility of the National Solid residues Service (Service National des Résidus Solides -SNGRS) along with local government authorities (collectivités territoriales). Sigora generates limited volumes of solid waste from its offices, as well as from construction and operations activities, and disposes it in accordance with the waste management processes[5] used within the Project municipalities. Although compliant with local regulations, this procedure does not comply with PS3, which requires waste to be disposed of in an environmentally sound matter that also includes appropriate control of emissions from the processing of waste material.

Construction activities, including installation of new transmission lines and solar panels, will involve the use of heavy machinery, as well as minor land clearing and grading, all of which generate temporary noise and dust emissions. Similarly, the operation of diesel generators produces both noise and air emissions that can temporarily impact the surrounding environment, including a short-term decrease in air quality. Notwithstanding, Sigora does not currently have noise or dust abatement procedures established (e.g., using misted water to moisten recently graded areas and establishing silt fences for dust; use of a sound berm around stationary generators for noise).

4.4 Community Health, Safety and Security

Most of the Project's power generation facilities are at some distance from residential areas. Bombardopolis is the exception. This facility, originally built by Haitian Electricity Company (Electricité d'Haiti -EDH), is directly adjacent to a home which can potentially be adversely affected by noise and emissions generated by the diesel generators. According to Sigora staff, the residents of this household have not made any complaints about noise or air quality, and had, in fact, previously donated the land for such facility, since they were eager to see the town electrified and have themselves electricity.

Sigora has established grid standards to ensure the safe design, installation and maintenance of their micro-grids. The standards adhere to the U.S. National Electric Codes (NEC) 2017, the U.S. National Electric Safety Codes (NESC) 2017, the EDH Operation Guidelines 1983, and the United States Department of Agriculture (USDA) Specifications and Drawings for 24.9/14.4kV Line Construction 1998.

Sigora's solar installation racking at Môle Saint Nicolas has been certified to Miami-Dade County building code by a structural engineer who is a licensed professional engineer (P.E.) in the state of Florida (wind speeds up to 140 miles per hour -mph).

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[5] Which basically consist in bringing the waste to designated dumping fields where it is dried under the sun, and then burned by municipal officials.

All construction workers come from the local area or are trained EDH Personnel. The current model for the construction phase consists of about ten trained construction supervisors temporarily relocating from Môle Saint Nicolas or Port au Prince to the Project municipality, and each subsequently hiring and supervising a small crew of 2-10 local workers. Workers whose permanent residence is in a town other than their current work assignment are accommodated together in a house that is cleaned and maintained by a housekeeper, and a cook is hired to prepare meals. Given that workers are local to the area, worker numbers are relatively small, worker housing conditions are well maintained, and their presence does not pose increased risks for infectious disease transmission.

Sigora has a Hurricane Preparedness Plan that includes at a high level a commitment to engage in community outreach as needed to ensure that the local population in the municipalities are informed and adequately prepared for impending hurricanes.

Each generation facility has a 24-hour guards and personnel overseeing the facility to ensure smooth running and prevent theft or vandalism. The guards or personnel are unarmed and not expected to intervene physically if an incident were to occur; the procedure is for them to call other Sigora personnel and the police, if required. The guards are hired locally; as with all other permanent staff, employees are required to provide a national identification number to verify identity as part of the recruitment process. Criminal background check procedures are not specified as part of Sigora Haiti's process in its recruitment guidelines. In BPS however a community committee had been established to screen potential employees on criminal background. Given that security guards are hired from within the host community, and that physical intervention is not within their job duties, the Project's security personnel are not considered to pose a risk to the community.

4.5 Land Acquisition and Involuntary Resettlement

The Project has not required any physical or economic displacement to date and is not expected to require any in the future. The generation facilities are located on lands that either belong to the municipalities or were donated to Sigora by local supporters of the Project. Transmission lines are generally along municipal rights of way, though some poles are on or directly adjacent to private properties.

Since the concession agreement was signed between Sigora Haiti and the municipalities, the latter are responsible for obtaining the land owners' consent and easing the land needed for the transmission lines.

To date no complaints have arisen relating to the construction of the transmission lines on private properties. Results of the stakeholder engagement activities conducted as part of the ESIA process did not indicate any complaints regarding impacts to private property.

4.6 Biodiversity Conservation and Natural Habitats

The three current Project locations (Môle Saint Nicholas, Jean Rabel, and Bombardopolis) are in the Hispaniola dry forest region which has been highly impacted by deforestation and thus, habitat modification.

The Project does not intersect, any legally protected area, internationally recognized area or critical habitat. A portion of the North-west Department (Departement du Nord-Ouest), specifically in Presqu'ile (located in the Bay of Môle, just across Môle Saint Nicolas) where the wind turbine is likely to be located, has been identified[6] as a Key Biodiversity Area because it harbors populations of the Ridgway's Hawk (*Buteo ridgwayi*) the Bay-breasted Cuckoo (*Hyetornis rufigularis*) and the Greater Antillean Oriole (*Icterus dominicensis*), all of them endangered.

Bird Life International[7] and the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species[8] have identified 10 Important Bird and Biodiversity Areas (IBA) areas in Haiti. None of them intersect the Project locations or their area of influence.

4.7 Indigenous communities

The original inhabitants of Haiti were the Taíno. The Spanish and French colonial settlements in La Hispaniola practically exterminated them as they were replaced by slaves brought from Africa. Thus, 95 percent of Haiti's current population is predominantly African descent.

There are no recognized indigenous peoples present in the country.

4.8 Cultural Heritage

Seven national monuments have been identified in the Project area by the Sational Heritage Safeguard Institute (Institut de Sauvegarde du Patrimoine Nationale -ISPAN) which are mostly colonial French military structures. None of them will be affected by the Project. However, since the Project is in an area with a moderate potential for undiscovered cultural heritage resources a Chance Finds Procedure (CFP) needs to be developed.

5. Local Access of Project Documentation

The ESIA of the project was available for consultation and suggestions until the public hearing day on the 8th and 9th of May in Mole St Nicolas, Bombardopolis and Jean Rabel for approximately 4h in each of the municipalities. This public hearing consisted of a presentation in English and Creole of Julio Guzman and Sawardjnes Pierre Huguens of about 1-2h and subsequent Q&A. The presentation itself started with an outline of the project scope, a social and environmental analysis

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6 Study performed by the Critical Ecosystem Partnership Fund (CEPF).

7 http://datazone.birdlife.org

8 http://www.iucnredlist.org

and a path forward with recommendations. The overall response of the municipality was highly positive and supportive to the project.

6. Environmental and Social Action Plan (ESAP)

Environmental and Social Action Plan – ESAP
SIGORA Micro-utility Program - HAITI

N°	Action	Deliverables	Proposed Deadline
1.0 Assessment and Management of Environmental and Social Risks and Impacts			
Permitting			
1.1	Develop and maintain a register of required environmental permits for the Project that allows for tracking of application deadlines, expiry dates, and status.	1. Project permit registry. 2. Updates on permit registry.	1. Prior to financial close. 2. In periodic ESCR.
E&S Assessment and Management Policy			
1.2	Produce and adopt an overarching E&S policy that: i) defines the Project's objectives; ii) provides a framework for the ESMS; iii) clarifies and defines the roles and responsibilities for implementation of the Project's ESMS, and iv) ensures appropriate capacity and training.	1. Project E&S Policy.	1. Prior to financial close.
Identification of Risks and Impacts			
1.3	Provide a Project alternatives analysis including a no-Project alternative, with the justification of the technical, economic, social and environmental criteria used in the final selection of the Project's location, design and technologies.	1. Project alternatives analysis.	1. Prior to first disbursement.
Emergency Preparedness and Response			
1.4	Develop and adopt emergency management plans (EMPs) specific to natural hazards to which the Project area is vulnerable (hurricanes, earthquakes, tsunamis, landslides, etc.).	1. EMPs for each natural hazard.	1. Prior to first disbursement.
Stakeholder Engagement			
1.5	Develop a Stakeholder Engagement Plan (SEP) that; i) identifies, categorizes and prioritizes different stakeholder groups; ii) defines the type and frequency of engagements to be conducted with each group; iii) clearly defines roles, responsibilities, and procedural requirements to publicize, realize, record attendance, produce minutes and follow-up on actions for each event; and iv) include communities of Mare Rouge, Liancourt, Petite Rivière de l'Artibonite and Dessalines	1. Project SEP 2. Update on engagement activities	1. Prior to first disbursement 2. In periodic ESCR
External Communications and Grievance Mechanism			
1.6	Develop and adopt a grievance mechanism to capture and process concerns and grievances of affected communities and other relevant Project's stakeholder groups, including times, procedures, roles and responsibilities.	1. Grievance mechanism. 2. List of employees responsible for grievance mechanism. 3. Record of community meetings or other methods of sharing and explaining the grievance mechanism process	1. Prior to financial close 2. Prior to financial close 3. In periodic ESCR
Ongoing Reporting to Affected Communities			
1.7	Develop and adopt a semi-annual report for the affected communities to provide them with updates on relevant aspects of the Project's environmental and social performance.	1. Report delivered to affected communities	1. Annually in periodic ESCR

N°	Action	Deliverables	Proposed Deadline
Monitoring and Review			
1.8	Produce an Environmental and Social Compliance Report (ESCR) covering environmental, social, health and safety, and cultural topics to evidence compliance with Applicable Standards, including ESAP and Project performance.	1. Construction ESCR	1. Biannually during construction
		2. Operations ESCR	2. Biannually during the first year of operation and then annually
2.0 Labor and Working Conditions			
Working Conditions and Management of Worker Relationship			
2.1	Finalize HR policies and procedures, including the Employee Handbook and worker grievance mechanism, in accordance with the requirements outlined in the Haiti Labor Code and PS2.	1. Employee Handbook	1. Prior to financial close
		2. Worker grievance mechanism protocol	2. Prior to financial close
2.2	Seek the Ministry of Social Affairs and Labor (MAST) final approval of HR policies.	1. Submission to MAST	1. Prior to first disbursement
2.3	Share the Employee Handbook and grievance mechanism procedure with all employees, and document acknowledged receipt by the employee.	1. Record of employees signed acknowledgement	1. In periodic ESCR
Occupational Health and Safety			
2.4	Develop and implement the following H&S policies and procedures and ensure all workers have been trained on all of them: i) live power line safety; ii) EMF monitoring and safety; and iii) PPE requirements (i.e. hearing protection, masks) for workers spending extended periods of time near noise sources.	1. Live Power Line Safety Procedure,	1. Prior to financial close
		2. EMF Monitoring and Safety Procedure	2. Prior to financial close
		3. PPE requirements for work near noise sources	3. Prior to financial close
Workers Engaged by Third Parties			
2.5	Develop and implement a contractor management policy that includes: i) signed contract outlining the work and anticipated pay; ii) requirements contractor oversight, including ensuring safety training and PPE are provided where applicable, and safety practices are followed; iii) information on and access to the worker grievance mechanism; iv) means to assess that no child or forced labor is being used by contractors or in the primary supply chain of the Project, and; v) means to evaluate third party employer's compliance with PS2 requirements.	1. Contractor Management Policy	1. Prior to first disbursement
		2. Signed contracts with temporary workers or contractors, and any third party employers	2. In periodic ESCR
3.0 Resource Efficiency and Pollution Prevention			
Pollution Prevention			
3.1	Perform the following actions: i) add secondary containment around diesel storage tanks that is designed to contain 110% of the volume of the tank; ii) place waste oil barrels on secondary containment (such as a hard plastic containment pallet) and in a covered area away from rain and wind exposure, and iii) analyze options for alternative waste disposal method, if reasonably available, that does not rely on burning trash.	1. Establish Action Plan	1. Prior to financial close
3.2	Develop and adopt pollution-prevention procedures designed to protect the environment and local community, including: i) a spill prevention and clean-up plan; ii) a waste management plan that comprises procedures to reduce the amount of waste produced and includes the procedures to manage and dispose adequately hazardous wastes; and iii) a dust emissions and noise control plan	1. Spill prevention and clean-up plan	1. Prior to first disbursement
		2. Waste management plan	2. Prior to first disbursement
		3. Dust emissions and noise control plan	3. Prior to first disbursement
		4. Evidence of implementation of the	4. In periodic ESCR

N°	Action	Deliverables	Proposed Deadline
		plans and procedures.	
4.0 Community Health, Safety, and Security			
Community Safety and Safety			
4.1	Engage regularly with the household adjacent to the generation facility in Bombardopolis to determine whether household members are experiencing noise or emissions disturbance and implement mitigation measures, if necessary.	1. Evidence of engagement with household.	1. In periodic ESCR
4.2	Cover or regularly drain the unused rainwater cistern at the Bombardopolis facility to avoid standing water that could serve as mosquito breeding habitat.	1. Evidence of regular cistern cleanings	1. In periodic ESCR
6.0 Biodiversity Conservation and Natural Habitats			
Protection and Conservation of Biodiversity			
6.1	Prior to the construction of the wind facility and the rehabilitation of the pier, carry out a biodiversity assessment related to bird migratory paths and update the ESMP to include specific mitigation and monitoring measures for these Project components.	1. Biodiversity assessment for wind turbine.	1. 30 days prior to construction of the wind turbine
7.0 Cultural Heritage			
Chance Find Procedures			
7.1	Conduct desktop mapping of known cultural heritage sites (both pre-Columbian archaeological sites and designated national monuments) in the Project's Area of Influence. Consult with ISPAN to confirm the regulatory requirements, and any plans for designated and yet-to-be-designated sites.	1. Cultural heritage resources mapping	1. 3 months after financial close
7.2	Consult with affected communities to identify cultural heritage or living heritage sites of importance occur near the Project.	1. Evidence of community consultations through meeting minutes or meeting debrief report	1. 3 months after financial close
7.3	Develop and implement a chance find procedure (CFP) to be used during all Project construction activities and ensure that sufficient training on implementation of the CFP of all permanent and temporary construction managers and staff.	1. Chance finds procedure 2. Documented construction personnel training on CFP	1. Prior to first disbursement 2. In periodic ESCR