Luxembourg, 22/04/2021

Public

Environmental and Social Data Sheet

Overview

Project Name:	*PV HYBRID STORAGE SYSTEM DEMO PROJECT (EDP)*
Project Number:	*2019-0284*
Country:	*FRANCE*
Project Description:	*Financing of the construction of a 50 MWp PV plant with a hybrid energy storage system with batteries and hydrogen in French Guiana.*

EIA required: Yes

Project included in Carbon Footprint Exercise[1]: No

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

The present Project comprises of the development, construction and operation of a renewable energy generation plant integrated with an innovative energy storage system in French Guyane. The Project consists of a 50MW photovoltaic farm integrated with a 123MWh innovative hybrid energy storage system, which is based on batteries (35MWh) and hydrogen (88MWh storage, 15-20MW electrolysers, 3MW fuel cells). The Project will provide dispatchable renewable energy to the grid.

The Project falls in Annex II of the EIA directive. The Project also falls under the provisions of the Industrial Emissions Directive and the Seveso Directive (lower-tier) due to the hydrogen component and the Water Framework Directive due to the rainwater discharge and the discharge of the water produced in the fuel cells as a by-product. The Project was subject to an EIA process under the provisions of the French Environmental Code (Code de l'Environment), the Water Law (Loi de l'eau) and the Seveso and Industrial Emissions Directives. The Project was granted the environmental permit in November 2019. The permit outlines the terms that the Project must comply with (in terms of environmental impacts, e.g. noise levels, water quality, biodiversity protection) and the monitoring requirements. The project was also granted a building permit.

[1] Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO2e/year absolute (gross) or 20,000 tonnes CO2e/year relative (net) – both increases and savings.

Luxembourg, 22/04/2021

The Project is located 11km east of the city of Saint-Laurent du Maroni. The site was selected after a consultation with the competent authorities as the most appropriate. The site of the Project falls within a ZNIEFF type 2 area ("Zone naturelle d'intérêt écologique, faunistique et floristique") which is an inventory of sites and it is used as an instrument of knowledge for regional planning. The Project site is rented by the national forest authority which is in charge of the sustainable development of the forests in the region. The Project site is not within the Amazonian Forest Park which has a protected status (110km to the south of the Project).

The Project entails negative environmental impacts related primarily with the clearing of 74 hectares of degraded forest which was used for timber extraction in the past. The biodiversity assessment carried out as part of the ESIA process indicates the presence of flora of conservation importance (determining the ZNIEFF designation), protected species of avifauna and the potential presence of protected amphibian and fish species in the low-lying flooded forest, ponds and watercourses (particularly rich in biodiversity). These areas will be avoided by the Project. No critical habitats will be impacted by the Project. The Project area will cover only the high elevation parts of the site avoiding any low-lying and flooded forest habitats. In addition, as per the permit requirements, the Project promoter will have to:

- Actively protect, manage and monitor the sensitive low-lying water flooded areas which are threatened by the current practice of slash and burn agriculture. This covers an area of c.50-70 hectares. The monitoring will take place over a period of 5 years and includes the submission of an annual monitoring report to the authorities.
- Remove all equipment and restore the site at the end of the economic life of the project and after decommissioning.
- Pay a lease to the Forest authority of French Guyane which will contribute to the forest management activities carried out in the entire country/region.

As a result of these measures, the residual impact on biodiversity was considered minor and no net loss of biodiversity is expected as a result of the implementation of the project.

Negative impacts may also result from the draining by rainwater of oils or pollutants (transformer oils, vehicle liquids etc) into the low-lying flooded areas in the case of an accident or a damage. The Project will implement a drainage system with the appropriate captive areas and oil separators such that the discharge of the water into the environment is in line with the appropriate standards. The residual impact after mitigation is considered negligible. The water quality in the region is significantly impacted by the agricultural practices in the greater area. Under the social management plan, the project will carry out awareness activities with the locals aiming to increase awareness on the water quality and biodiversity sustainability aspects.

Finally, noise was considered as a potential impact due to the presence of certain components of the hydrogen energy storage system. Appropriate mitigation measures have been introduced to ensure the Project complies with the relevant national noise standards as per the Permit.

The Project entails positive environmental impacts through the avoidance of 17kt of CO2eq/yr according to the Bank's carbon footprint methodologies (the energy supply in the region is currently underpinned by a strong share of fossil fuels and hydropower). Environmental benefits will also arise from the protection of the water ponds, the water courses and the flooded forest parts and their ecological monitoring. Furthermore, the activities to be carried out under the social management plan with the local population (e.g. biodiversity awareness, water quality awareness and sustainable agricultural practices) will also entail environmental benefits. The residual environmental impacts are considered minor and acceptable.

Luxembourg, 22/04/2021

Social Assessment

The Project site is located 2km away from a village of a Kali'na tribe, which is an Amerindian tribe inhabiting primarily in the north of the region and in the coastline. Scattered dwellings of the Buschinengue ethnic group can also be found in the greater area of the project site. The population in the greater project area, comprising of both the village and the other dwellings, is c. 250 people.

The implementation and operation of the project is not expected to entail significant impacts to the local population. The facilities of the Project are at a safe distance from the village and the dwellings such that noise impacts are not significant. In the case of a potential accident in the hydrogen energy system (the project will employ storage of hydrogen at a pressure of 30bar) there is no risk to the locals due to the distance. An accident emergency plan will be in place as per the applicable legislation. In terms of visual impacts, the facilities will be shielded by the vegetation. Fishing and hunting activities will still be possible to continue undisturbed in the region with the exception of the c.70ha where the project equipment will be installed and closed for movement for security reasons. The layout of the project will not force the locals to detour via a long distance around the Project in order to traverse eastward as the layout of the project is modular (e.g. several smaller parcels of PV farms in selected areas as described in the biodiversity paragraph).

To facilitate a socially responsible implementation of the Project, the Bank will require that the promoter implements an Environmental and Social Management Plan (ESMP), which will include among others an Indigenous People Development Plan and a Vulnerable People Development Plan (for the Buschinengue people in the area). Furthermore, implementation of the Free, Prior and Informed Consent (FPIC) process is required by the Bank. A community benefit sharing plan will be required to be established as a result of the FPIC process. These requirements have been communicated to the Promoter early on at the appraisal phase.

With regards to the occupational and community health and safety of the project, there are two main aspects, namely the ongoing COVID19 situation and the fact that the project is a SEVESO facility (due to the production and storage of hydrogen). With regards to COVID19, as with any project currently under development, the Promoter will be required to put in place the necessary health and safety provisions such that all employees and contractors apply the measures appropriately throughout the implementation and operation of the Project.

As the Project is employing hydrogen technologies, it also entails certain accident risks related to hydrogen which are not common to renewable energy projects. A hazards study has been carried out which identified a number of potential scenarios such as ignition and explosion in the hydrogen components and fire in the battery modules. All these scenarios indicate that the impacts do not extend beyond the perimeter of the Project and it will not endanger the neighbouring population. The contractor who will be leading the implementation of the Project is experienced with the technologies involved.

With the implementation of the relevant management plans, the application of FPIC and a community benefit sharing plan, the development and operation of the project is unlikely to entail significant negative social impacts. On the contrary, with the aforementioned measures implemented throughout the project's lifetime, the Project can serve as an example project for other projects in the region.

Luxembourg, 22/04/2021

Public Consultation and Stakeholder Engagement

The promoter has carried out a number of public consultation and stakeholder engagement activities during the development of the project. These include consultation on the greater region in the context of the permitting of the Project (facilitated by the competent authorities) and meetings in the neighbouring village with its inhabitants.

The public consultation that was carried out in the context of the project's permitting process was extensive. It was well advertised and lasted for c. 1 month. In total four meetings took place and the conclusion of the competent authority was that there was no clear opposition noted. This could be attributed to the sustainable nature of the Project as a Renewable Energy Project.

The public acceptance of infrastructure projects has been low in the region primarily due to the development of other projects which did not enjoy the support of the local communities. The Project promoter has engaged into a dialogue with the inhabitants of the village and the inhabitants of the scattered dwellings in the area. In these dialogues, the main concerns of the local population were regarding safety (against technical accident related to the hydrogen storage) and the preservation of their way of life. The concerns of the local population can be addressed with the implementation of an appropriate Environmental and Social Management Plan. Additional engagement is planned. In line with the FPIC process, the engagement with the locals will aim at a clear endorsement of the Project and a statement of accompanying mitigating measures and a benefit-sharing agreement.

The approach and the actions taken by the Project promoter so far indicate that the FPIC principles are followed, and overall, the stakeholder engagement process is considered appropriate. In going forward, the Promoter will carry on with further engagement with local communities in the context of the drafting of the Project's ESMP. In the context of the engagement with the local communities, the Project promoter will publicly disclose the final draft of the Indigenous Peoples Development Plan (IPDP) in the appropriate manner and make this document available to the affected indigenous people once finalised.

Other Environmental and Social Aspects

The lead promoter of the Project is an infrastructure investor with experience in the appraisal and management of environmental and social impacts. The ESMP will outline the appropriate staffing for its implementation and will specify the particular roles, responsibilities and time scales. At signature, the Bank will make sure that the objectives of the ESMP are in line with the present assessment and that the Promoter is staffed appropriately.

The Bank will put in place appropriate E&S monitoring arrangements in the financing documentation for the topics outlined in the present assessment.

Conclusions and Recommendations

The following environmental and social conditions and undertakings will be required.

- The promoter will prepare before signature, a social impact assessment report to the satisfaction of the Bank. The report should document **the Stakeholder Engagement** carried out during 2020-2021 and **the Free, Prior and Informed Consent ("FPIC") process in line with EIB applicable standards.**

- The promoter will prepare an **Environmental and Social Management Plan to the satisfaction of the Bank**.

Luxembourg, 22/04/2021

- The promoter will submit, to the satisfaction of the Bank an **environmental and social management system (ESMS)** before signature. The ESMS will outline the set of management processes and procedures, such as human resources management, environmental management and occupational health and safety management, that allow the promoter to identify, avoid, minimise, mitigate and offset or remedy any environmental and social impacts of the operation.

- The **Social Management Plan** will include: an **Indigenous People Development Plan** and the **Vulnerable People Development Plan**; the provisions for the **Grievance Mechanism**; the **Community Benefit Sharing Plan as a result of the FPIC process**;

- The **Environmental Management Plan** will include the **Biodiversity Management Plan** and the **Water Management Plan**;

- The Promoter will prepare an **Occupational and Public Health, Safety and Security Management Plan ("OHSMP").** This plan will outline among others the COVID19 related provisions and the SEVESO related provisions.
  - Appropriate provisions will have to be implemented in the contracts of the Project.
  - The OHSMP will be informed by a contextual risk (pandemic timeline, resilience and functioning of the healthcare system, prevention campaigns that may influence the project) and project risk assessment (nature of workforce, accommodation, workers mobility, labour practices).
  - The OHSMP will include an Emergency Preparedness and response plan which will outline how to identify, mitigate and respond to instances of COVID by ensuring that appropriate plans, procedures and protocols are in place and communicated appropriately.
  - The OHSMP will outline prevention procedures that cover basic hygiene and personal protective equipment, cleaning, disinfections visitors/suppliers management policies.

In addition to the conditions mentioned above, the following undertakings are proposed.

- The promoter will undertake not to initiate any works on site unless FPIC has been achieved and demonstrated.

- The promoter will undertake to follow the ESMP and update it as relevant during the lifetime of the project.

- The promoter will submit to the Bank annual E&S performance reporting (including on E&S organisational capacity, ESMS update, SEP implementation and ESMPs implementation). The Bank will reserve the right to request that the review of the ESMS/ESMP implementation is undertaken by a suitable third party, if deemed necessary by the Bank.

- Before construction start covered by the Project, the promoter should organise and implement a site-specific training programme for the relevant E&S management staff on the topic of E&S issues (ESMP, SEP, grievance management etc.).

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Luxembourg, 22/04/2021

The promoter should maintain an up-to-date Environmental and Social Management System throughout the entire duration of the project.

On environmental and social terms, the project is acceptable for the Bank's financing with the above conditions.