**Document of the Inter-American Development Bank**



**Guyana**

**Energy Matrix Diversification and Institutional Strengthening of the Department of Energy (EMISDE)**

**GY-L1066**

**Environmental and Social MANAGEMENT REPORT**

**(ESMR)**

31 August 2018

This document was prepared by:

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| **ENVIRONMENTAL AND SOCIAL MANAGEMENT REPORT (ESMR)** | |
| **Operation Name:** | Energy Matrix Diversification and Institutional Strengthening of the Department of Energy (EMISDE) |
| **Operation Number:** | GY-L1066 |
| 1. **Operation Details** | |
| **IDB Sector** | INE/ENE |
| **Type of Operation** | Specific Investment Loan Operation |
| **E&S Impact Categorization** | Category B |
| **Disaster Risk Rating** | Moderate |
| **Borrower** | Government of the Cooperative Republic of Guyana |
| **Executing Agency** | **Component 1:** Guyana Energy Agency (GEA) – Ministry of Public Infrastructure  **Component 2**: Guyana Power and Light Inc. (GPL) – Ministry of Public Infrastructure  **Component 3**: Guyana Energy Agency (GEA) –  Ministry of Public Infrastructure |
| **IDB Loan US$ (and total project cost)** | US$ 25,110,000 |
| **Applicable Policies/Directives** | OP-102; OP-704; OP-761; OP-765; OP-703 (B.1, B.2, B.3, B.4, B.5, B.6, B.7, B.9, B.10, B.11, B.17) |
| 1. **Executive Summary** | |
| In accordance with the IDB’s Policy OP-703, this operation is classified as Category “B”; the infrastructure development consists of the installation of three solar plants in the townships of Bartica, Madhia and Lethem (Component 1) and the installation of a new transmission line in Georgetown and upgrade of three related substations (Component 2). It is anticipated that the project will generate moderate impacts that could be easily mitigated by the implementation of the required mitigation measures. Two Environmental and Social Assessments (ESAs) were developed for both project components, which include Environmental and Social Management Plans (ESMPs) for each one of the solar plants and one for the transmission line and substations. Additional details are presented in the text of the present ESMR.  The main impacts for Component 1 will be associated with land clearing (pre-construction) and erosion during both construction and operations. At Bartica site, there will be the need to clear high dense vegetation; therefore, the implementation of a Fauna Rescue Plan and a Revegetation Plan will be required. Disaster risk for Component 1 is low. The three townships have important presence of indigenous people and these Amerindian communities are main beneficiaries of the Project; mainly positive impacts are expected on indigenous people. No land acquisition at any sites is foreseen for the development of the solar plants and all the needed land is already owned by the Government; no claims from indigenous communities have been reported in the ESA and consultations undertaken with the indigenous community leaders (Toshaos) at the three communities. Component 1 will also entail development programs for women in order to ensure equal opportunities and, thus, a parallel gender analysis was conducted; consultations with relevant gender groups have been undertaken to understand women expectations and the current employment situation.  The main impacts for Component 2 will be associated with the management of construction activities along the right-of-way (e.g. traffic and health and safety) that are addressed within the ESMP. During operations, considering that the project is located in the urban area of Georgetown, potential impacts to avifauna are considered minor. Disaster risk for Component 2 is moderate due to the frequency of flooding events and the flat topography of the area. Therefore, a qualitative analysis on disaster risk is included in the ESA along with the preliminary identification of mitigation measures to be considered into the design. No land acquisition from private owners is required according to the ESA and the consultations undertaken; the land needed for the new transmission line is on State land and the land needed for substations’ upgrade is owned by GPL directly. Current environmental conditions at the Old Sophia substation are poor in terms of soil contamination, hazardous material storage and general housekeeping, for which a Remediation Plan will be required. | |
| 1. **Operation Description** | |
| The objective of the Operation is to support Guyana’s evolving energy sector framework by the development of the following three components.  **Component 1. Renewable Energy solutions for the Hinterland (US$8,6 million):** this component entails the installation of solar photovoltaic plants in the townships of Bartica, Mahdia and Lethem. The installation of 1.5 MW within 7.5 acres of land is planned in Bartica; 1 MW within 5 acres of land is planned in Lethem, 0.65 MW within 3.25 acres of land is planned in Mahdia. Overall, the component will provide a reliable electricity source to the expanding needs of power supply in the townships, now relying on fossil fuel. The three townships have important presence of indigenous people: 17% Amerindian in Bartica, 17% Amerindian in Madhia and 51% Amerindian in Lethem. Project areas are located on State land; no land acquisition is necessary according to the ESA and consultations undertaken to date. Culturally appropriate consultations with the indigenous community leaders and representatives (Toshaos) have been undertaken to assess whether any claims from indigenous community are present at the sites. It should be noted that the criteria for selecting the sites included avoiding private land and being near to the existing transmission lines and road network. Only in the case of Bartica, an extension of transmission line (which land is owned by the Government as identified during the due diligence phase) will be needed for the length of 0.75 miles along with the opening of new paths and access roads into the forest. The solar plants are located outside any protected areas and sensitive natural habitats. Bartica site is the only site with dense high vegetation that will require clearing and leveling activities prior to construction. The flooding risk of the project areas is low.  As an outcome of the gender analysis performed on Component 1, it is also foreseen the electrification of the Community Centers of Dagg Point in Bartica and Campbelltown in Madhia; however, these developments would not cause relevant environmental impacts given the limited intervention necessary (one transformer and limited electric connections).    Madhia Lethem Bartica  **Component 2. Reinforcement of transmission infrastructure (S$9,95. million):** this component entails (i) reinforcements at three substations of Kingston, Old Sophia and 5 km single circuit overhead 69 kV transmission line (TL) between the Kingston and Sophia substations and (ii) installing reactive power compensation at New Sophia. The infrastructures related to this component are located inside the urban area in Georgetown, which is already degraded from an environmental perspective. Considering the flat topography of the area and the frequency of flooding events, the risk of flooding at project sites has been an area of concern that was studied within the ESA. The land needed for the TL and substations’ upgrade is owned by the State and, according to the ESA and consultations undertaken, no land acquisition is required. The TL is, for most of its extension, parallel to an existing TL and at a certain point it deviates because of insufficient space on the same right-of-way. During the Analysis mission, the team visited the substations sites in Old Sophia and New Sophia and confirmed that no resettlement will be necessary. It should be noted that some squatters are living on GPL land between the two substations in Old Sophia and New Sophia; however, they are located outside the adjacent land allocated for the substations’ upgrade. It is understood that a parallel financing to upgrade the Kingston substation is planned by the Islamic Development Bank (IsDB), however this would not be within the current scope of IDB financing; it is also acknowledged that the IsDB project could be connected in the future to the project financed by IDB, therefore, if this will be the case, it would become an Associated Facility. In case that the parallel financing will be not confirmed, no action would be required.    L5 Transmission line between Kingston and Sophia substations  **Component 3. Institutional Strengthening and Governance of the Department of Energy (US$4.5 million):** This Component will finance the activities to strengthen the newly created DE. In particular, it will finance: (i) capacity building initiatives and best practice organizational structure, including high level training and coaching of government staff in the DE: the work will strengthen the GoG’s ability to manage the O&G sector effectively and efficiently; and (ii) technical support for the development of the design of a new O&G legislative and regulatory framework that are urgently needed in Guyana considering that the country has no experience in the upstream activities.No infrastructure development is associated to this component. | |
| 1. **Key Impacts, Risks, and Mitigation Measures** | |
| **Assessment Requirements and Information Disclosure** | |
| Two Environmental and Social Assessments (ESAs) were prepared for Component 1 (the three solar developments) and Component 2 (transmission line installation and substation upgrade). The ESAs include the Environmental and Social Management Plans (ESMPs) for each one of the solar plants and the TL and substations. The ESAs also contains a Consultation Report summarizing the results of the consultations undertaken. A qualitative analysis on disaster risk is included in the ESA for Component 2 along with the preliminary identification of mitigation measures to be included into the design.Both ESAs were published prior to the Analysis mission on 18 June 2018 (<http://convergence.iadb.org//Operation/GY-L1066>). | |
| **Consultation and Stakeholder Engagement** | |
| The ESA process entailed the consultations meetings with relevant stakeholders at each project site (Bartica, Madhia and Lethem for Component 1 and Georgetown for Component 2). The consultations are considered meaningful, which involved different categories of stakeholders and conducted in a transparent manner, equitable and non-discriminatory. Flyers for public invitation were distributed in advance to the meeting and a presentation with information on the project and questionnaires were provided during the meetings.  All the consultation meetings were aimed at providing information on the project, understanding the local context and gathering any community concerns and expectations on the project.  On Component 1, as an outcome of the consultations at the solar plants, all the stakeholders met were in favor of the Project and no concerns were raised. The project areas are not allocated on land owned or claimed by indigenous people as confirmed during the preparation of the loan. In particular, no claims from indigenous communities were raised on the allocated land for the solar plants according to the consultations undertaken with the Toshaos at the three communities. In addition, non-objection letters have been collected from the indigenous community leaders - Toshao/Deputy Toshao - of Dagg Point in Bartica and Campbelltown in Madhia. In addition, on Component 1, an ad-hoc gender analysis was developed in parallel to the ESA process with the support of a gender specialist visiting the sites and engaging with relevant gender groups. Overall, consultations undertaken on Component 1 were inclusive and included effective participation of women and men.  On Component 2, some concerns were raised by the community members living in Georgetown in the Campbelville area (not identified as indigenous people as assessed during the due diligence phase), being the most crucial area along the right-of-way where the new line is separating from the existing one. It is noted that low attendance was registered at the consultation meeting, despite the fact that the meeting was widely advertised, which was deemed acceptable given the limited impact of the project and the required stakeholder engagement during the implementation phase. In particular, the residents raised questions on the safety of the lines, alternative routes considered and main benefits from the project that were answered in a proper manner by GPL. As an outcome of the raised concerns from the residents addressed during the meeting, a requirement was added into the ESA to develop a Communication Strategy with the Campbelville community during the implementation phase as part of the stakeholder engagement activities in order to ensure that project information is continued to be communicated in a transparent manner.  The consultation meetings were undertaken according to the following schedule.  **Component 1:**  Bartica, Cuyuni-Mazaruni region (Region 7):   * Main stakeholder meeting: June 4th, 2018 at 10:30 am - Regional Democratic Council (RDC) office, Bartica. * Meeting with Benab-Amerindian Community and the RDC’s Women Affairs Committee: July 11th, 2018 at 1 pm - Dagg Point community center, Bartica. * Gender analysis interviews with Gender Affairs Committee, Hope Foundation and Golden Jubilee sewing: June 28th, 2018 at1:30 pm – Dagg Point community center, Bartica.   Lethem, Upper Takutu-Upper Esequibo region (Region 9)   * Main stakeholder meeting: May 31th, 2018 at 5:00 pm. RDC Boardroom, Lethem. * Community meeting: June 1st, 2018 at 5:00 pm. Amerindian Conference Hall, Lethem. * Gender analysis interviews with Regional Gender Committee Affairs, Fundraising for Single and Lethem Town Council Subcommittee: August 1, 2018 (various locations). * Engagement with Toshaos at Lethem via phone – 20 August 2018   Mahdia, Potaro-Siparuni region (Region 8)   * Main stakeholder meeting: May 29th, 2018 at 5 pm. RDC Boardroom, Mahdia. * Community meeting: May 30th, 2018 at 10:00 am. Amerindian Hostel, Campbelltown Village. * Gender analysis interviews with Women of fortune, Campbelltown sawing group and Assemblies of God: July 31, 2018 (various locations).   **Component 2:**   * Stakeholder meeting with community members of Campbelville: August 10th, 2018 at 10:30 am - Tropical View International Hotel in Delph Street, Campbelville | |
| **Environmental and Social Impacts and Risks and Mitigation Measures** | |
| The most significant potential Environmental, Social and Health and Safety (ESHS) risks and impacts associated with the Program are described below for each component. Overall, the proposed operation will generate moderate impacts that could be easily mitigated by the implementation of the required mitigation measures.  ***Component 1 – Solar plant installation:***   * **Indigenous People:** Amerindian communities residing in the three townships of Bartica, Madhia and Lethem are main beneficiaries of the Project; mainly positive impacts are expected. During the ESA process, consultations have been held with indigenous community leaders (Toshaos) at three communities in Bartica, Madhia and Lethem confirming that there are no claims on the allocated land for the solar developments. Before construction, GEA will need to ensure, through the implementation of the Stakeholder Engagement Plan and Grievance Readdress Mechanism, continuous engagement with relevant stakeholders (including indigenous people) throughout all stages of project development. * **Land acquisition:** no land acquisition at any sites is foreseen for the development of the project and all needed land is already owned by the Government (including the new 0.75 mile transmission line in Bartica). No claims from indigenous communities have been reported in the ESA on the allocated land for the solar developments according to the consultations with Toshaos at Bartica, Madhia and Lethem). Before awarding of the contracts, GEA have to provide the formal documentation on legal rights confirming the land acquisition status (i.e. State land) for the three sites. * **Gender**: development programs for women are foreseen within the Project development in order to ensure equal opportunities; these may include, among others, training programs and small-business investments for women. Consultations with gender groups have been undertaken to understand their expectations on the project as well as the local context of female employment. * **Worker influx:** While residents are expected to take part in some construction activities, there may also be the need for influx of workers with specific skills, especially at the most remote site in Lethem. Peak construction would require approximately 50-70 workers at site and potential impacts may be related to community health and safety. Awareness campaigns to the population and training to workers are foreseen to mitigate this impact. Worker influx during operations will be negligible. * **Biodiversity:** according to the ESA, the project sites are not contained within any areas designated nationally as important biodiversity areas, including protected areas and forest reserves. Bartica is the only site highly vegetated.AtBartica, construction will require cleaning and leveling and impacts to flora and fauna may occur. Mitigation measures include the implementation of a fauna rescue campaign, before any clearing and leveling activities take place in the event that any animals are encountered. A Fauna Rescue Plan is included in the ESA and it will need to be implemented before site clearing at Bartica. Before construction, GEA are required to implement a Revegetation Plan in order to offset the vegetation that will be cleared at all sites due to the construction of the solar plant and its related facilities (e.g. transmission line extension and access roads). Biodiversity impacts during operation of the solar plants are considered negligible. Potential impacts to avifauna are related to the transmission line extension in Bartica (about 0.75 miles long), which are addressed in the ESMP through the installation of perch deterrents and the monitoring of bird deaths per month. * **Erosion:** during construction, erosion will be an impact due to clearing activities at sites, in particular at Bartica where the site is located on the top of a hill and streams are crossing the site. Erosion impacts are also applicable to the operation phase. Mitigation measures include the implementation of erosion control measures such as installation of sediment traps and/or sedimentation ponds. During the design tendering process, GEA will have to include erosion control measures into the requirements of the solar developments (e.g. sediment traps and/or sedimentation ponds) to avoid erosion impacts. * **Traffic management:** transport of equipment may lead to minor traffic impacts on the public roads. It should be noted that the road network at remote location where the solar sites are located is at rural level and may require road reinstatement/upgrade during construction. Site-specific traffic management plans will be needed to be developed before commencement of any a construction works. * **Hazardous waste management:** the construction, operation and decommissioning of the solar plants will generate hazardous waste streams, which will need to be managed according to the ESMP requirements. The ESA includes a description of the current hazardous waste disposal practices in the project areas. Before construction, GEA will have to identify proper hazardous waste disposal locations to be used for project-related waste. * **Capacity of executing agency/borrower:** during the analysis mission,GEA demonstrated to have good capacity and it appeared to be aware of project requirements and committed to implement IDB policies. Increase of technical human resources (e.g. electric engineers and project coordinators) have been reported by GEA in the coming months. GEA will assign additional socio-environmental expertise into their organization during the implementation phase to supervise the project activities. In addition, Environmental, Social Health and Safety (ESHS) requirements for the recruitment of main contractors and suppliers have to be included into the Contract/Agreements with them before commencement of any construction works. Main Contractors have to develop their own ESHS plans in line with ESA/ESMP requirements before any construction begins.   ***Component 2 – Transmission line installation and substation upgrade:***   * **Disaster risk:** Considering the flat topography of the area and the frequency of flooding events, the risk of flooding is an issue to be taken carefully into consideration. A qualitative analysis on disaster risk is included in the ESA for Component 2 along with the preliminary identification of mitigation measures to be included into the design. Before construction, GPL will have to provide evidence that the design of substations and towers includes mitigation measures to avoid/mitigate potential impacts from risk of flooding. * **Environmental Legacies:** During the site visit of the analysis mission, the Old Sophia substation was found in poor housekeeping conditions and issues were identified in relation to hazardous material storage and potential for soil contamination. In particular, environmental liabilities are present at site due to improper storage of old transformers in proximity of a water drain with consequent potential for contamination of the soil and water. During project implementation, GPL is required, to implement a Remediation Plan aimed at improving the current environmental conditions of the existing substations. * **Land acquisition:** the land needed for the new transmission line is on State land, while land needed for substations’ upgrade is owned by GPL directly. No land acquisition from private owners is required according to the ESA results and consultations undertaken. * **Avifauna:** the ESA reports presence of birds in the project area, however none of the species are identified as near threatened, vulnerable, endangered or critically endangered (not listed in the International Union for Conservation of Nature Red List). It should be noted that the transmission line is located inside the urban area in Georgetown, which is already degraded from an environmental perspective. Georgetown is not located within any areas designated nationally as important biodiversity areas, including protected areas or forest reserves and there are no officially designated areas in Guyana identified as Important Bird Areas. In addition, the new line will be constructed along an existing line. Therefore, impacts to avifauna is considered minor. The ESMP requires the installation of perch deterrents and the monitoring of bird deaths per month. * **Traffic management:** transport of equipment may lead to minor to moderate traffic impacts on the urban public roads. Site-specific traffic management plans will be needed to be developed before commencement of any construction works. * **Hazardous waste management:** the construction, operation and decommissioning of the solar plants will generate hazardous waste streams, which will need to be managed according to the ESMP requirements. The ESA includes a description of the current hazardous waste disposal practices in the project areas. Before construction, GPL will have to identify proper hazardous waste disposal locations to be used for project-related waste. * **Health and Safety:** theinstallation of the transmission line will include high risk activities (i.e. working at heights). A site-specific Health and Safety Management Plan has to be developed before commencement of any a construction works. * **Other Impacts and Risks:** it is possible that the Kingston substation upgrade by the IsDB (parallel financing) could become an Associated Facility in the future (however it is currently out of the scope of the IDB financing). If this will become an Associated Facility in the future, GPL will need to update the ESA and ESMP to reflect the presence of the associated facility and its impacts. * **Capacity of executing agency/borrower:** during the analysis mission,the executing agency for component 2 (Guyana Power and Light Inc. - GPL) appeared to be aware of project requirements and implementation modalities. An EHS officer is already appointed within current GLP structure. Environmental, Social Health and Safety (ESHS) requirements for the recruitment of main contractors and suppliers have be included into the Contract/Agreements with them before commencement of any construction works. Main Contractors have to develop their own ESHS plans in line with ESA/ESMP requirements before any construction begins. | |
| **Supervision and Execution** | |
| The IDB will supervise the operation based on its environmental and social impacts and risks; this supervision can include site visits, monitoring visits by external consultants and desk reviews of documentation. The Executing Agencies will supervise the construction and operation of the project through their dedicated Project Executing Unit. Specific socio-environmental staff from the Executing Agencies will be appointed in order to effectively monitor the socio-environmental performances of the project development. The execution period of the project is four (4) years; semi-annual reports will be required to be submitted by the Executing Agencies to the IDB for review and comments. | |
| 1. **Environmental and Social Requirements** | |
| In order to meet the requirements of the Bank’s Environmental and Social Safeguard Policies, the Cooperative Republic of Guyana will comply to the satisfaction of the Bank with the ESHS contractual terms and conditions set forth in Annex B. These terms and conditions can only be modified with the prior written consent of the Bank, including clearance by ESG. These include (i) conditions prior (CPs) to Board and/or OPC; (ii) standard conditions for implementation of the ESHS Plans and measures as well as reporting and supervision requirements; (iii) conditions that address key risks and impacts; (iv) conditions to be included in the Operating Manual; (v) definitions. These conditions and definitions will be incorporated into the Loan Agreement and as such the Borrower is legally bound to comply with these conditions. | |
| 1. **Summary of Compliance with IDB Safeguard Policies** | |
| See Annex A for a summary of the safeguard policies and directives applicable to this operation. | |

**Annex A. Summary of Compliance with IDB Safeguard Policies**

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| **Policies / Directives** | **Compliance Status and Rationale with Policy / Directive Requirements** | **Requirements / Actions / Plans / Timing** |
| **OP-703 Environment and Safeguards Compliance Policy** | | |
| B.2 Country Laws and Regulations | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** All theneeded environmental permits and licenses for the execution of the project are not in place yet. | The executing agency for Component 1 (GEA) and Component 2 (GPL) will need to acquire all the needed environmental permits and licenses relevant to the project development before commencement of any construction works. A permit register (listing all the needed environmental permits and licenses and expected deadlines for achievement) is needed to be established before any constructions take place. |
| B.3 Screening and Classification | **Full compliance achieved**. The Operation has been classified as Category B and an ESA was developed. | None. |
| B.4 Other Risk Factors | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** For Component 2,the Kingston substation upgrade by the IsDB (parallel financing) could become an Associated Facility in the future; however, it is currently out of the scope of the IDB financing. Also, see other info on Natural Disaster Risk in OP-704 below. | In case the IsDB upgrade at Kingston substation will become an associated facility, GPL will need to update the ESA and ESMP to reflect the presence of the associated facility and its impacts. |
| B.4 Other Risk Factors (Institutional Capacity) | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** GPL has an EHS officer who oversee at environmental and social aspects; however, at the time of this review, GEA has not environmental and social internal expertise. | * GEA will assign additional socio-environmental expertise into their organization prior to initiation of construction activities in order to supervise the project activities. * Updated ESHS organization charts related to the Program implementation will need to be in place during construction works. |
| B.5 Environmental Assessment and Plans Requirements | **Full compliance achieved, to maintain compliance through the life of the loan.** TheESA included three ESMPs for the Component 1 (three solar plants) and one ESMP for Component 2 (transmission line and upgrade of substations). ESMPs are considered commensurate to the complexity of the present operation | The Borrower has to ensure that the ESMPs are operational from Main Contractors for both Components and implemented throughout the life of the project. |
| B.5 Social  Assessment and Plans Requirements | **Full compliance achieved, to maintain compliance through the life of the loan**. The ESA included the necessary investigations on land acquisition; no physical displacement and no economic displacement are foreseen due to the development of Component 1 and Component 2. | * Before awarding of the contract, GEA have to provide the legal rights confirming the land acquisition status of land (i.e. State land). * The Executing Agencies will need to ensure the Stakeholder Engagement Plans and Grievance Readdress Mechanism includes all operational details and are implemented to ensure continuous engagement with relevant stakeholders (including indigenous people) throughout all stages of project development. |
| B.6 Consultation (including consultation with affected women, indigenous persons, and/or minority groups) | **Full compliance achieved.** Meaningfulconsultations have been performed for both Components. Gender inclusive consultations, and consultations with indigenous people and other relevant stakeholders happened during the period May-August 2018 (refer to the Consultation and Stakeholder Engagement section above for details). | None. |
| B.7 Supervision and Compliance | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** The Executing Agencies will supervise the construction and operation of the project through their dedicated Project Executing Unit. | During construction and operations, semi-annual reports will be required to be submitted by the Executing Agencies to the IDB for review and comments. |
| B.8 Transboundary Impacts | **Not applicable (policy not relevant).** No transboundary impacts will occur due to the development of Component 1 and Component 2. | None. |
| B.9 Natural Habitats | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** The Bartica site ofComponent 1will need the clearing of a vegetated area (i.e. Bartica solar site). A Fauna Rescue Plan is included in the ESA for Component 1. Component 2 has negligible interactions with natural habitats. | * Before construction, GEA will implement an offset Revegetation Plan for the Bartica solar site and its related facilities (e.g. transmission line extension and access roads) * Before any construction begins, the Fauna Rescue Plan for Component 1 will need to be implemented by the Contractor at Bartica site. |
| B.9 Invasive Species | **Not applicable (policy not relevant).** The project will not introduce any invasive species. | None. |
| B.9 Cultural Sites | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time**. TheESA did not identify any cultural sites within the project areas of Component 1 and Component 2. | Before construction, the Borrower will inspect the sites to ensure no archeological findings are there. |
| B.10 Hazardous Materials | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** Usage of hazardous material is envisaged during project construction and operations of Component 1 and Component 2. The ESA contains general mitigation measures for hazmat management within the ESMP. | * ESA and ESMP requirements on hazardous material management have to be implemented during construction. * Site-specific procedures on hazmat management at main contractors’ level are needed before commencing of any construction works. |
| B.11 Pollution Prevention & Abatement | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** The ESMP included in the ESA contains mitigation measures for environmental management during construction and operation. Component 1 can be affected by erosion issues due to clearing activities of the Bartica solar site; Component 2 has environmental liabilities related to soil contamination at Old Sophia substation. | * During the design tendering process, GEA will have to include erosion control measures into the requirements of the solar developments (e.g. sediment traps and/or sedimentation ponds) to avoid erosion impacts. * During project implementation, GPL have to implement a Remediation Plan aimed at improving the current environmental conditions of the existing substations in terms of potential soil and water contamination, hazmat storage and general housekeeping. * At least 3 months before construction, Executing Agencies will have to identify proper hazardous waste disposal sites for the waste generated by project-related activities. * The ESA and ESMP requirements on environmental management have to be implemented during construction. * Site-specific environmental procedures at main contractors’ level are needed before commencing of any construction works. |
| B.11 Pollution Prevention & Abatement | **Full compliance achieved.** Component 1 will reduce GHG emissionsin the areaproject areas by reducing the need of fossil fuels. Component 2 does not have direct influence on generation of GHG emissions. | None. |
| B.12 Projects under Construction | **Not applicable (policy not relevant).** Construction is yet to start at all project areas. | None. |
| B.13 Noninvestment Lending and Flexible Lending Instruments | **Not applicable (policy not relevant).** This requirement is not applicable to the proposed Loan. | None. |
| B.14 Multiple Phase and Repeat Loans | **Not applicable (policy not relevant).** The operation is not multiple-phase or repeat loan. | None. |
| B.15 Co-financing Operations | **Not applicable (policy not relevant).** No co-financing is foreseen on this operation. | None. |
| B.16 In-Country Systems | **Not applicable (policy not relevant).** This operation is not using national safeguards systems. | None. |
| B.17 Procurement | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** Main Contractors and Suppliers are yet to be identified by the Executing agencies. | Environmental, Social Health and Safety (ESHS) requirements for the recruitment of main contractors and suppliers have to be included into the Contract/Agreements with them before commencement of any construction works and during project execution as applicable. ESHS requirements should reference to IDB E&S safeguards polices and a clear statement to avoid child labor and forced labor should be made. |
| **OP-704 Natural Disaster Risk Management Policy** | | |
| A.2 Analysis and, if necessary, management of Type 2 risk[[1]](#footnote-1) scenario | **Not applicable (policy not relevant).** Disaster risk Type 2 is not foreseen for this operation. | None. |
| A.2 Contingency planning in case of emergencies (Emergency response plan, Community health and safety plan, Occupational health and safety plan) | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** Disaster risk due to flooding for Component 2 is moderate.A qualitative analysis on disaster risk is included in the ESA along with the preliminary identification of mitigation measures to be included into the design. | Before construction, GPL will have to provide evidence that the design of substations and towers includes mitigation measures to avoid/mitigate potential impacts from risk of flooding. |
| **OP-710 Operational Policy on Involuntary Resettlement** | | |
| Resettlement Minimization | **Not applicable (policy not relevant).** No involuntary resettlement is foreseen. | None. |
| Impoverishment Risk Analysis | N/A | None. |
| Resettlement Plan and/or Resettlement Framework Requirement[[2]](#footnote-2) | N/A | None. |
| Resettlement Plan Consultations | N/A | None. |
| **OP-765 Operational Policy on Indigenous Peoples** | | |
| Sociocultural Evaluation Requirement | **Full compliance achieved, to maintain compliance through the life of the loan.** The ESA included an assessment of impacts on indigenous people for Component 1 identifying mainly positive impacts on the Amerindian communities residing in the three townships of Bartica, Madhia and Lethem. Culturally appropriate consultations have been held with indigenous community leaders (Toshaos) at the three communities in Bartica, Madhia and Lethem confirming that there are no claims on the allocated land for the solar developments and highlighted support to the project. | Before construction, GEA will need to implement a Stakeholder Engagement Plan and Grievance Readdress Mechanism to ensure continuous engagement with relevant stakeholders (including indigenous people in a culturally appropriately manner) throughout all stages of project development. |
| Good-faith Negotiations and proper documentation / agreements with Affected Indigenous Peoples | **Not applicable (policy not relevant).** | None. |
| Indigenous Peoples Compensation, and Development Plan or Framework requirement | **Not applicable (policy not relevant).** | None. |
| Discrimination and/or Exclusion Issues | **Not applicable (policy not relevant).** | None. |
| Transborder Impacts | **Not applicable (policy not relevant).** | None. |
| Impacts on Isolated Indigenous Peoples | **Not applicable (policy not relevant).** | None. |
| **OP-761 Operational Policy on Gender Equality in Development** | | |
| Consultation and effective participation of women and men | **Full compliance achieved.** Development programs to women are foreseen within Component 1 in order to ensure equal opportunities; these may include, among others, training programs and small-business investments. Consultations with gender groups have been undertaken to understand their expectations on the project as well as the local context of female employment. Effective participation of women and men was achieved in the consultations undertaken. | None. |
| Gender equality risk[[3]](#footnote-3) analysis | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** The ESA identified the need for influx of workers at the sites of Component 1 may lead to potential impacts related to community health and safety. | During construction of Component 1, awareness campaigns or by using community meetings for the population and training to workers are foreseen to mitigate community health and safety impacts. |
| **OP-102 Access to Information Policy** | | |
| Disclosure of relevant Environmental and Social Assessments[[4]](#footnote-4) Prior to Analysis Mission, QRR, OPC and submission of the operation for Board consideration[[5]](#footnote-5) | **Full compliance achieved**. All studies on environmental and social matters were disclosed according to IDB procedures. | None. |
| Provisions for Disclosure of Environmental and Social Documents during Project Implementation | **Compliance achievable through specific conditions established in legal documentation for actions over a defined period of time.** | If any new environmental and social studies will be carried out during the project implementation, these will be disclosed according to IDB procedures. |

**Annex B. ESHS Legal Requirements**

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| **A. Clauses to be incorporated in the Special Conditions** |
| * + - **Special Conditions of Execution**  1. The Borrower agrees to design, build, operate, maintain, and monitor the Project and manage the ESHS risks of the Project’s Associated Facilities, if any, directly or through the Executing Agency or through every other contractor, operator or any other person performing Project related activities in accordance with the Environmental and Social Assessment (ESA) and the Environmental and Social Management Plan (ESMP) and other environmental, social and occupational health plans and requirements included in the Corrective Action Plan.   Justification: ensure project is managed as per IDB requirements.   1. The Executing Agencies shall continue to engage with relevant stakeholder by: (i) implementing social requirements of the Program to guarantee that the affected communities are informed and consulted about the progress of the work and the socio-environmental management of the Program and that a conflict resolution process is in place and available to the public; and (ii) make available to the public any evaluation and socio-environmental management plan related to the works.   Justification: ensure that any claims from relevant stakeholders are managed in a timely manner.   1. Prior to the start of the respective works of the Program, the respective Executing Agency must provide evidence that: (i) operative ESMPs from Main Contractors for both Components are in place; (ii) for the works under component 1, GEA team will further present the operational Revegetation Plan in order to offset the vegetation that will be cleared at Bartica site; and (iii) for the works under component 2, GPL will further provide evidence demonstrating that mitigation measures regarding risk of flooding have been incorporated into the design documentation.   Justification: ensure socio-environmental mitigation measures are in place before construction   1. Six (6) months prior to the start of the operational stage of proposed investments, the respective Executing Agencies need to present the operation stage ESHS Plans and evidence of their implementation including any required consultation with stakeholders.”   Justification: ensure compliance with IDB policies.   1. The Borrower or the respective Executing Agency, as the case may be, agrees to obtain prior to awarding of the contracts for each of the works of the Program, if any, legal possession of the property where the construction of the respective work is to take place, easements or other rights required for its construction and use, as well as water rights required for the work in question. If no legal possession of the properties is obtained, any changes to the Program and construction sites (for example location, design, type, changes to ESHS Plans, etc.) will require the no objection of the Bank and a new Environmental and Social due diligence, assessment, and consultation process in a manner consistent with the Bank's environmental and social safeguards policies.   Justification: confirm the land acquisition status (i.e. State land). |
| **B. Provisions to be included in the Operational Manual (“ROP”)** |
| 1. Prior to the start of the respective works of the Program, the respective Executing Agency must provide evidence that: (i) Stakeholder Engagement Plans, Grievance Readdress Mechanisms (internal and external) are implemented for both Components; (ii) proper hazardous waste disposal sites have been identified for both Components; (iii) all sites are inspected for presence of archeological findings; 2. Any substantive changes to the ESHS Plans shall be in writing and approved by the Bank in a manner consistent with the Bank's environmental and social safeguards policies. 3. With respect to the Project and Associated Facilities, if any, the Executing Agencies shall notify the Bank in writing within ten (10) days of any (1) potential or actual material noncompliance with the environmental and social requirements; (2) accidents, incidents or other significant events [e.g. spills, fires, discharges of hazardous substances]; (3) significant actual or imminent social conflicts; (4) ESHS regulatory action such as government inspections and regulatory reports and action, significant changes, judicial and arbitral claims, etc.; or (5) any newly identified environmental and social risks and impacts, that may affect the environmental and social aspects of the Project and of its Associated Facilities, if any, in each case such notice shall include actions taken or proposed with respect to such events. 4. The Executing Agencies shall each prepare and present to the Bank’s satisfaction, an ESHS Compliance Report (ESCR), in the form and content to be agreed upon with the Bank as part of the semester/biannual progress report and until two years after construction is completed. |

1. Type 2 risk scenario occurs when the operation has a potential to exacerbate hazard risk to human life, property, the environment and the project itself. [↑](#footnote-ref-1)
2. OP-710 applies when livelihood impacts lead to physical displacement (see *Transitional Guidance in instruments for Physical Displacement, Economic Displacement and Economic Losses under OP-710 and OP-703* (TG-005) for more information) [↑](#footnote-ref-2)
3. Risks may include: (i) Unequal access to project benefits/ compensation measures, (ii) Men or women disproportionally affected due to gender factors, (iii) Non-compliance with applicable legislation related to equality between men and women, (iv) Increased risk of gender-based violence, including sexual exploitation, human trafficking and sexually transmitted diseases, and (v) Disregard of women’s ownership rights. [↑](#footnote-ref-3)
4. Environmental and Social Assessments include ESIAs, ESMPs, RPs, RFs, and ESMFs. [↑](#footnote-ref-4)
5. Please refer to the Protocols for ESHS Documentation and Information Disclosure for more details on the disclosure timing of the different Environmental and Social Assessments. [↑](#footnote-ref-5)