

**Renewable - BARBADOS  
Environmental and Social Action Plan (ESAP)**

No.	Aspect	Action	Deliverable	Delivery date
<b>PS 1: Assessment and Management of Environmental and Social Risks and Impacts</b>				
1.1	Environmental and Social Management System	1. Develop an Environmental and Social Management System (ESMS) that includes the following elements: i) E&S policy; ii) identification of hazards and assessment of risks and impacts; iii) management plans (including a decommission plan); iv) organizational capacity and competency; v) training plan; vi) emergency preparedness and response (EPR); vii) stakeholder engagement plan and community grievance mechanism; and viii) monitoring and review.	1. ESMS handbook	1. Prior to start of works
		2. Implement the Environmental and Social Management System (ESMS)	2. Evidence of implementation	2. As part of the Environmental and Social Compliance Report (ESCR)
1.2	Complementary analyses	1. Complete a detailed Quantitative Risk Assessment (QRA) for the detailed engineering designs (including an oxygen dispersion model to assess the potential risks and impacts associated with the release of oxygen from the Project)	1. QRA Report with oxygen dispersal model	1. Prior to start of works
		2. Implement the prevention and mitigation measures suggested by the QRA to ensure public safety.	2. Evidence of implementation	2. Prior to start of works and thereafter as part of the ESCR
		3. Develop a Compensation Framework for damages, based on a social baseline and an inventory of assets located in areas where potential damage may occur.	3. Compensation Framework	3. Prior to start of works
		4. Implement the Compensation Framework.	4. Evidence of implementation	4. Prior to start of works and thereafter as part ESCR
		5. Develop a Process Safety Management System (PSMS) compliant with Good International Industry Practice (GIIP) to prevent process-related incidents that includes, but is not limited to, process hazard analysis, operating procedures, training, management of change, incident investigation and emergency planning.	5. Process Safety Management System manual	5. Prior to operations
		6. Implement the Process Safety Management System (PSMS)	6. Evidence of implementation	6. As part of the ESCR
		7. Facilitate an independent review of the operational readiness of the project.	7. Independent review report	7. Prior to commissioning
		8. Perform a process safety audit	8. Process safety audit	8. One year after start of commercial operations
1.3	Contractor Management	1. Update the Contractor E&S Requirements to include at minimum: i) development and implementation of an ESMS tailored for the construction phase; ii) adherence to the applicable Project policies; iii) detailed ESHS plans to be developed and implemented; iv) provisions of E&S personnel and resources allocated to the contract; v) monitoring and reporting of E&S performance; and vi) explicit commitment to compliance with the national law and legal obligations ascribed to the Project.	1. Updated Contractor Environmental and Social Requirements	1. Prior to start of works
		2. Annex Contractor E&S Requirements to EPC contract	2. EPC contract with E&S requirements	2. Prior to start of works
		3. Develop a Contractor Management and Assurance Plan ("CMAP") describing the controls to ensure ESHS impacts are adequately managed across all Project stages	3. CMAP	3. Prior to start of works

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1.4	Environmental and Social Management Plans	1. Develop E&S Management Plans for the Construction Phase (CESMP) and operational phase (OESMP) including but not limited to labor management, OHS, process safety, hazardous materials management, agricultural, liquid, solid and hazardous waste management (incorporating viable disposal options for damaged or decommissioned solar PV panels and osmosis reject water), water management, EPR, community health & safety, road safety management, security management, environmental monitoring plan, supplier management plan, stakeholder engagement (including community grievance management and communications strategy), and contractor management.	1. CESMP and OESMP	1. Prior to start of works for CESMP, and Two months before Commercial Operation Date (COD) for OESMP
		2. Implement the CESMP and OESMP	2. Evidence of implementation	2. As part of the ESCR
		3. Present the EPC contractors' CESMPs	3. Contractors' CESMPs	3. Prior to start of works
		4. Implement the EPC contractors' CESMPs	4. Evidence of implementation	4. As part of the ESCR
1.5	Organizational Capacity	1. Appoint additional qualified and experienced staff to manage identified OHS and ESHS risks and contractor management (including but not limited to Plant Manager, Community Liaison Officer, and Communications Consultant)	1. Job descriptions and copies of the appointment	1. Prior to start of works for construction phase appointments, and two months before COD for operational phase appointments
		2. Provide an overarching EHSS Organizational chart for RSB and EPC	2. EHSS Organization Chart	2. Prior to start of works
		3. Verify the technical capacity of the proposed EPC contractors and subcontractors environmental and social management teams.	3. Verification report	3. Prior to start of works
1.6	Monitoring and reporting	1. Appoint an Independent Environmental and Social Consultant to monitor the Project and review the effectiveness of the ESMS, CESMP and OESMP	1. Evidence of appointment	1. Prior to first disbursement
1.7	Responsible Purchasing Charter	1. Adopt the Responsible Purchasing Charter (RPC)	1. Evidence of adoption	1. Prior to first disbursement and thereafter as part of the ESCR
		2. Incorporate in the EPC contractors' and subcontractor contracts contractual clauses requiring adoption and compliance with the RPC	2. Copy of the proposed contractual clauses.	2. Prior to first disbursement
1.8	Stakeholder engagement	1. Update Stakeholder Engagement Plan (SEP) including: i) the area of influence of all project components based on additional stakeholder mapping and social risks and impacts identified; ii) appropriate mechanisms for conflict resolution; and iii) ongoing Informed Consultation and Participation (ICP)	1. Updated (SEP)	1. Prior to board approval
		2. Implement the SEP	2. Evidence of implementation	2. As part of the ESCR
		3. Develop a Communications Strategy to address specific concerns and perceptions about Project related activities	3. Communications Strategy	3. Prior to board approval
1.9	External grievance mechanism	1. Implement a Community Grievance Mechanism that includes: i) channels to allow confidentiality and anonymity; ii) specific channels for GBVSH and training for personnel handling these types of complaints; iii) disclosure of the available means to file grievances; and iv) interface with contractors and detailed internal protocols to ensure grievances are adequately addressed, tracked and logged, centralized, analyzed, and feedback given to complainants.	1. Evidence of implementation	1. As part of the ESCR
<b>PS 2: Labor and Working Conditions</b>				
2.1	Human Resource Management	1. Develop a Human Resource Management Plan (HRMP) reflecting HR policies and procedures in alignment with local regulations including: i) a Code of Conduct and Ethics for all workers (direct and contractors) with disciplinary actions for non-compliance; ii) mandatory induction training; iii) rules and expected workplace behavior; iv) rules for interactions with	1. HRMP	1. Prior to start of works

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		local communities; v ) prevention measures for GBVSH in the workplace, sexual exploitation, and abuse in local communities; vi) procedures for local recruitment, reporting of working conditions and demobilization; vii) a workers' accommodation plan; and viii) the Gender Action Plan including gender equality approach, GBVSH prevention and addressing safety risks for women in the workplace.		
		2. Implement the HRMP	2. Evidence of implementation	2. As part of the ESCR
2.2	Internal grievance mechanism	1. Implement internal grievance procedure covering the channels available to report grievances (including those confidential, anonymous, and associated with GBVSH) as well as dissemination, recording, logging, and tracking methods for all complaints to ensure the follow-up and analysis.	1. Evidence of implementation	1. Prior to first disbursement and thereafter as part of the ESCR
2.3	Occupational Health and Safety	1. Prepare site-specific OHS risk assessments for the construction phase of the Project	1. OHS risk assessments for the construction phase	1. Prior to start of works
		2. Implement risk control measures for all identified construction risks and hazards	2. Evidence of implementation	2. Prior to start of works and thereafter as part of the ESCR
		3. Prepare site-specific OHS risk assessments for the operational phase of the Project	3. OHS risk assessments for the operational phase	3. One month before the Project Completion Date (PCD)
		4. Implement risk control measures for all identified operational risks and hazards	4. Evidence of implementation	4. As part of the ESCR
		5. Designate Health Safety and Environment Officer to oversee EPC contractor management	5. Copy of the appointment	5. Prior to start of works
		6. Provide health and safety training to workers and contractors relevant to construction and operations	6. Evidence of implementation	6. As part of the ESCR
		7. Submit timely incident reports with root cause analysis	7. Incident reports with root cause analysis	7. As part of the ESCR
2.4	Supply chain	1. Provide an unpriced copy of the signed contract with the supplier of the photovoltaic components.	1. Contract copy	1. Prior to the start of works
		2. Provide a map of the solar panel supply chain listing the sub-suppliers' facilities, at least at the level of the polysilicon components, including measures to ensure that these sub-suppliers are the only ones able to supply materials for the Project.	2. Supply Chain Map	2. Prior to financial closing
		3. Provide a copy of the bill of materials for the panels that are acquired for the Project.	3. Copy of the bill of materials	3. Within three weeks of receiving the panels
<b>PS 3: Resource Efficiency and Pollution Prevention</b>				
3.1	Water reduction	1. Prepare Water Usage Management Plan with measures reflected in the relevant ESMPs to include: i) maximizing use of rainwater and use for non-potable water processes (in particular, maintenance activities, sheep farm areas); and ii) maintenance of drainage systems to facilitate aquifer recharge	1. Water Usage Management Plan	1. Prior to start of works
3.2	Pollution Prevention	1. Assess feasible options for the use or final disposal of the water treatment reject water for inclusion in CESMP and OESMP	1. Report on reject water use or final disposal	1. Prior to completion of engineering works
		2. Implement a monitoring program of the use or final disposal of the water treatment reject water.	2. Evidence of implementation.	2. As part of the ESCR
3.3	Pesticide Use and Management	1. Establish an Integrated Pest Management Strategy ("IPMS") Protocol with a documented plan, consideration of alternatives, and adherence to manufacturers recommendations for application. The strategy will include	1. IPMS	1. Prior to start of works

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		a commitment to not purchase, store, use, or trade in products that fall in WHO Recommended Classification of Pesticides		
<b>PS 4: Community Health, Safety, and Security</b>				
4.1	Gender Strategy	1. Develop a Gender Strategy to complement GAP and address GBVSH related to the behavior of Project workers in surrounding communities that includes: i) the implementation of awareness campaigns for both workers (including contractors, truck drivers, and security forces personnel) and communities regarding the gender risks associated with the Project; ii) the development, dissemination, and promotion of the grievance mechanism with specific channels for reporting GBVSH cases; and iii) the development of an Influx Management Plan (linked to the Workforce Management Plan) to assess, prevent, mitigate, and monitor impacts from Project-induced immigration on public services.	1. Gender Strategy	1. Prior to start of works
		2. Implement the Gender Strategy to address GBVSH	2. Evidence of implementation	2. As part of the ESCR
4.2	Traffic Management	1. Develop a Road Safety and Traffic Management Plan ("RSTMP") as part of the CESMP and OESMP incorporating a journey management plan to address traffic risks especially during construction. The plan will: i) identify critical social infrastructure (e.g., hospitals and schools) to prevent accidents and protect vulnerable pedestrians; ii) establish pre-travel check procedures; iii) inventory road and surrounding infrastructure that could be affected; iv) inspect existing roads prior to the start of construction to determine any additional maintenance works required; v) include speed limits, vehicle maintenance, emergency response for road accidents, and consultation and coordination with local traffic authorities/police; and vi) address driver fitness, training and competence. The final routes will be determined based on a risk assessment to minimize impacts on local communities. The plan will also consider a compensation procedure to address any property damage resulting such impacts.	1. RSTMP	1. Prior to start of works
<b>PS 5: Land Acquisition and Involuntary Resettlement</b>				
5.1	Involuntary resettlement	1. If needed, develop a Land Acquisition and Compensation Framework (LACF)	1. Land Acquisition and Compensation Framework	1. Prior to start of works
<b>PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>				
6.1	Agricultural Management	1. Develop and implement an Agricultural Management Plan (including management of wastes, mechanisms to limit zoonotic disease transmission, and ERP) to ensure that all operations are carried out in alignment with Global GAP for Livestock requirements	1. Agricultural Management Plan	1. Prior to start of works
		2. Implement the Agricultural Management Plan	2. Evidence of implementation	2. As part of the ESCR
		3. Utilize an independent verification system to monitor long-term implementation of Global GAP requirements	3. Manual of the verification system to monitor long-term implementation of Global GAP requirements	3. Within a year from start of farm operations
		4. Support the implementation of the independent verification system to monitor long-term implementation of Global GAP requirements.	4. Evidence of implementation	4. As part of the ESCR
<b>PS 8: Cultural Heritage</b>				
8.1	Protection of cultural heritage	1. Consult with relevant regulatory agencies, affected communities and Barbados Trailway Project (BTP) representatives regarding, measures to protect the trailway section that crosses the Project site.	1. Report on proposed measures	1. Prior to start of works

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		2. Implement the proposed protection measures	2. Evidence of implementation	2. As part of the ESCR
		3. Develop Chance Find Procedures for managing chance finds	3. Chance Find Procedure	3. Prior to start of works