

# Environmental and Social Management System (ESMS): Summary of ESMS Audit Report and Recommendation

## A: Introduction

1. Gulf Energy Development Public Company Limited (hereinafter referred as “GED” or “the Company”) has engaged an independent third party to undertake a Corporate Environmental and Social Management System (ESMS) Audit for Gulf Solar Plus Battery Energy Storage Systems Project (hereinafter referred to as “the Project”). The main purpose is to review and assess the status of GED’s ESMS implementation to all stages of 12 Projects developed and operated under GED’s business that will receive Asian Development Bank (“ADB”) and other lenders financing and complies with Applicable Standards. The Project comprises 393 MW solar and 256 MW of solar plus 384 MWh of battery energy storage system (BESS) subprojects across Thailand as listed below. The subprojects are being developed in two phases with the first five (5) subprojects to achieve commercial operation by December 2024 and the second phase with seven (7) subprojects to achieve commercial operation by December 2025.

Name of Subproject/Implementation Schedule		Location	PPA Capacity (MW)
2024	01_STP_Saeng Thai Phalangngan	Udon Thani	58.00
	02_PRR_Phalangngan Rungrueang	Udon Thani	54.00
	03_SKP_Sky Power	Kanchanaburi	48.00
	04_BRSP_Breeze and Shine Power*	Suphanburi	75.00
	05_SLD_Solar Development*	Kanchanaburi	60.00
2025	06_EGF_Energy First*	Phetchabun	61.00
	07_ICT_Isaan Clean Tech	Buriram	37.80
	08_SPP_Saeng Pat Phalangngan	Uttaradit	58.71
	09_TPS_Thai Pat Solar	Surin	51.00
	10_RS_Racha Solar	Buri Rum	37.80
	11_SYP_Suriya Pat	Sukhothai	48.00
	12_DTP_Duang Tawan Phalangngan*	Phayao	60.00

\* Solar + BESS

2. This ESMS audit is scoped for solar farm projects only. As part of this ESMS review and assessment, an independent third party conducted interview sessions with the GED Corporate representatives to identify the adequacy of implementing the ESMS process throughout the stages of a Project life cycle. This included reviewing evidence of implementing a screening, categorization, managing, assessing and monitoring relevant Environmental and Social (E&S) risks and impacts. Site visits were conducted for five (5) out of 12 sites with known location and are under the early project development phase (i.e., one in Suphanburi, two sites in Kanchanaburi and two sites in Udonthani province). For review of operational phase E&S management, interviews were conducted with GED Vietnam representatives. ADB representative also participated to observe in these sessions.

3. On 30<sup>th</sup> November 2023, an independent third party has delivered Corporate Environmental and Social Management System Audit Report ("Third Party Audit Report") to GED. Based on the Third Party Audit Report, GED prepared this summary report for disclosure to stakeholders (“**Summary of ESMS Audit Report**”). Further details of the 5 Projects assessed as part of the due diligence process are available in the IEEs and Social Compliance Audits and available on lenders’ websites.

## **B: ADB Safeguard Categorization and Rationale**

1. ADB has categorized the investment in compliance with its Safeguard Policy Statement as follows: Category B for Environment, Category B for Involuntary Resettlement and Category C for Indigenous Peoples Impacts, based on the following rationale:

- Environment: No protected areas or reserved forests were identified the Project boundary. Projects and TLs are not located within critical habitat. Land clearing and levelling is planned for project areas. Impacts are expected to be short-term, localised and mitigated/ minimized to an acceptable level with environmental management plans, the Project is deemed as Category B.
- Involuntary Resettlement: Corporate GED ESMS has been developed in alignment with IFC PS for assessing involuntary resettlement impacts. The Projects secured land tenure (title deeds) through agreements and land purchases from private landowners on willing buyers – willing sellers basis. The project 115 kV transmission lines (TL) is under responsibility of the Provincial Electricity Authority (“PEA”) to construct, operate and maintain. The TLs will be placed within right-of-way (ROW) of existing infrastructures and will require no land acquisition. The TLs will not be funded by the loan proceeds. The Project grievance management will cover both internal and external grievances, site-specific community grievance management to receive, evaluate and facilitate the resolution of affected people’s concerns or complaints or grievances related to social performance of the Project. While the risk of IR impacts is limited, because 7 of the 12 sites have not been assessed in detail for any legacy IR impacts and because the project activities may impose potential impacts of involuntary resettlement, the Project is classified as Category B.
- Indigenous Peoples Impact: According to the review of GED ESMS - Section 4.2.4, requirements have been established to develop management plans in the event that project activities impose impacts of Indigenous Peoples. Furthermore, based on the review of the known project location against publicly available information on the existence of indigenous vulnerable groups in Thailand, Indigenous Peoples are not expected to be located within the Project province and therefore the Project is deemed as Category C. This will be further verified through due diligence at each site as the project progresses into the other 7 sites.

## **C: Overview of Findings**

1. GED’s E&S Policy outlines the Company’s commitments to manage the potential E&S risks and impacts from GED key activities associated with the production of electricity, products, provision of service and transportation/ distribution of services and the ancillary by products. E&S commitments include implementing and maintaining the ESMS, comply with relevant national laws at a minimum, communicate expectations for E&S to counterparties, develop competencies and incorporate E&S risk assessment in the process to develop appropriate mitigation measures. Specifically for environmental commitments include considering key issues of biodiversity, waste management, greenhouse gas and the impacts to the local communities GED operates in and monitoring of environmental standards to achieve continuous improvement. For social, GED commits to considering human rights, diversity, occupational health and safety, and community relations as part of the Company’s social management, set targets for these key performance indicators and development action plans and monitoring to ensure implementation.

2. GED implements Corporate Environmental and Social Management System (ESMS), with supporting management procedures for Electricity Businesses, including having certified EHS management systems to (ISO) 14001 and 45001 for domestic power plants operations and carry out annual internal audits to assess alignment of power plant operation with ESMS requirements. A total of 59 supporting procedures have been developed since 2018. Procedures cover environment (coded as “EN”), environmental health and safety (coded as “ES”), and safety aspects (coded as “SA”).

**D: Recommendations**

1. Due to conditions of non-sovereign operation loan ADB provides to GED, the Project is required to implement ESMS to comply with ADB Safeguard Policy Statement, International Finance Corporation Performance Standards and other Applicable Standards.
2. The Table below summarises the audit findings and required corrective actions.

No.	Findings	Requirement Reference
	<b>Environmental and Social Management System Manual</b>	
1.	(a) Revisit ESMS manual, supporting management procedures, tools, and relevant documents as defined in recommendations.	<ul style="list-style-type: none"> <li>• IFC PS 1 (Environmental and Social Assessment and Management System: ESMS)</li> <li>• ADB SPS SR1-3</li> <li>• ADB SPS SR 4 Corporate Finance Requirements</li> <li>• ADB's Policy on Gender and Development</li> </ul>
	(b) Communicate updated ESMS manual and supporting procedures to all relevant employees, contractors, suppliers and other relevant stakeholders.	<ul style="list-style-type: none"> <li>• IFC PS 1 (Environmental and Social Assessment and Management System)</li> </ul>
	(c) Review ESMS Manual and procedures for continuous.	<ul style="list-style-type: none"> <li>• IFC PS 1 (Environmental and Social Assessment and Management System: ESMS)</li> <li>• ADB SPS SR1-3</li> <li>• ADB SPS SR 4 Corporate Finance Requirements</li> <li>• ADB's Policy on Gender and Development</li> </ul>
	<b>Screening, Categorization, and Impact Assessment</b>	
2.	<p><u>Risk Screening</u></p> <p>Update GED's existing risk screening criteria to include biodiversity, natural hazards/ disasters (e.g., storm), areas vulnerable to climate change risk (e.g., extreme heat, storm, water stress), involuntary resettlement indigenous peoples impacts and supply chain risks and ensure these also cover Transmission Line (TL) developments by third parties. Details of process are to be aligned with ADB SPS.</p>	<ul style="list-style-type: none"> <li>• ADB Safeguard Policy Statement (SPS) for Environment (SR1), Involuntary Resettlement (SR2) and Indigenous Peoples (SR3) and Corporate Finance Requirements (SR4)</li> </ul>
	<b>Organization, Resources and Competency</b>	
3.	<p>Enhance corporate and project E&amp;S organization including:</p> <p>(a) Appoint a Corporate level ESMS manager / director.</p>	<ul style="list-style-type: none"> <li>• IFC PS 1 (Organizational Capacity and Competency)</li> <li>• ADB SPS SR4 Requirements for Corporate Finance</li> </ul>
	<p>(b) Appoint a Corporate EHS Manager to oversee the 12 subprojects implementation of E&amp;S commitments.</p> <p>(c) Allocate dedicated Community Relations (CR) personnel for subprojects to build relationships and regularly check-in with project stakeholders/ affected communities; plan for and respond to community concerns/ project impacts; and communicate stakeholder's expectations in a timely manner</p>	<ul style="list-style-type: none"> <li>• IFC PS 1 (Organizational Capacity and Competency)</li> <li>• ADB SPS SR4 Requirements for Corporate Finance</li> </ul>

No.	Findings	Requirement Reference
	(d) Update organization structure to clearly reflect E&S roles and responsibilities.	<ul style="list-style-type: none"> <li>• IFC PS 1 (Organizational Capacity and Competency)</li> <li>• ADB SPS SR4 Requirements for Corporate Finance</li> </ul>
	(e) Develop a training plan for ESMS knowledge enhancement and provide training to the project team (for the 12 projects) on ESMS requirements and supporting procedures (i.e., Project Development, CR, Project Engineer, Construction Site Manager, Safety Officer, E&S Officer during Operation).	<ul style="list-style-type: none"> <li>• IFC PS 1 (Organizational Capacity and Competency)</li> <li>• ADB SPS SR4 Requirements for Corporate Finance</li> </ul>
	(f) Provide training as defined in the training plan	<ul style="list-style-type: none"> <li>• IFC PS 1 (Organizational Capacity and Competency)</li> <li>• ADB SPS SR4 Requirements for Corporate Finance</li> </ul>
<b>Monitoring and Reporting</b>		
4.	Set key EHS and social / labor performance indicators for assessing contractor's performance in alignment with contractual requirements (e.g., inspection of camp sites, number of E&S training induction completed, etc.) as part of the milestone plan.	<ul style="list-style-type: none"> <li>• ADB SPS SR1-4</li> <li>• IFC PS 1 (Monitoring and Review)</li> </ul>
5.	Enhance the assurance process for reviewing efficiency of ESMS implementation throughout the project life cycle (e.g., developing audit checklist with detail questions to assess adequacy of implementing management system, developing internal audit competencies and/or conducting site audits).	<ul style="list-style-type: none"> <li>• IFC PS 1 (Monitoring and Review)</li> </ul>
6.	GED Corporate level to establish E&S reporting protocol and reporting mechanism and templates to be used at subproject level which will report on ESMP compliance including contractor compliance, EHSS performance against applicable requirements, solar supply chain monitoring, which will be used to provide necessary subproject data collation for ADB E&S reporting.	<ul style="list-style-type: none"> <li>• ADB SPS SR1-4</li> <li>• IFC PS 1 (Monitoring and Review)</li> </ul>
<b>Stakeholder Engagement</b>		
7.	Review the completeness of the Corporate Stakeholder Engagement Procedure to ensure informal land users are included as stakeholders.	<ul style="list-style-type: none"> <li>• ADB SPS SR1</li> <li>• IFC PS 1 (Stakeholder Engagement)</li> </ul>
	(a) Update Stakeholder Engagement Plan Development Framework (in ESMS manual) to require completion of site-specific engagement plans.	<ul style="list-style-type: none"> <li>• AFDB SPS SR1</li> <li>• IFC PS 1 (Stakeholder Engagement)</li> </ul>

No.	Findings	Requirement Reference
<b>Community Grievance Mechanisms</b>		
8.	Community grievance mechanisms: Enhance current Community GRM at corporate and cascaded to subprojects. Review grievance classification definition to ensure that all grievances raised are appropriately recorded, including those submitted anonymously, that all grievances are screened and validated, and corrective actions are tracked until completion or resolution of grievances. Maintain grievance logs for sub-projects as part of Community grievance management procedure.	<ul style="list-style-type: none"> <li>• ADB SPS SR1</li> <li>• IFC PS 1 (External Communications and Grievance Mechanisms)</li> </ul>
<b>Workers Grievance Mechanism</b>		
9.	Subproject Workers grievance mechanisms: Enhance current Workers GRM to be used at subproject level. Ensure that all grievances raised are appropriately recorded, including those submitted anonymously, that all grievances are screened and validated, and corrective actions are tracked until completion or resolution of grievances. Maintain grievance logs for sub-projects as part of Workers grievance management procedure. Ensure contractors also have access to Worker GRM as alternative if contractor's own company does not have complaints mechanism of if worker prefers to not use contractor GRM.	<ul style="list-style-type: none"> <li>• ADB SPS SR1</li> <li>• IFC PS 1 (External Communications and Grievance Mechanisms)</li> </ul>
<b>Land Acquisition and Involuntary Resettlement</b>		
10.	Enhance site selection procedure and land acquisition procedure for negotiated land acquisition to ensure the incorporation of measures for avoiding and mitigating physical and economic displacement impacts.	<ul style="list-style-type: none"> <li>• ADB SR2</li> <li>• IFC PS 5</li> </ul>
11.	Develop and implement corporate guidance on sub-project level Site Maintenance to manage legacy cropping and vacating site, and avoidance of new encroached activities (such as grazing) and mechanism to handle possible future claims by former users or others.	SR1 – regarding community health and safety
<b>Supply Chain Management</b>		
12.	Enhance GED's supply chain management procedures in the ESMS by including provisions regarding audits or inspections of the manufacturing facilities of products/ components related to the solar PV modules and BESS supplied for the Project as part of the due diligence on new suppliers, if any, and monitoring of existing suppliers to verify supplier's compliance with GED's Supplier's Code of Conduct, including the prohibition of forced labor and child labor.	<ul style="list-style-type: none"> <li>• ADB's Safeguard Policy Statement, Prohibited Investment Activities List</li> <li>• ADB's Social Protection Strategy (2001)</li> </ul>