



**The World Bank**

Accelerating Renewable Energy Integration and Sustainable Energy (P172788)

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# Concept Environmental and Social Review Summary

## Concept Stage

### (ESRS Concept Stage)

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**BASIC INFORMATION****A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Maldives	SOUTH ASIA	P172788	
Project Name	Accelerating Renewable Energy Integration and Sustainable Energy		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing	3/2/2020	5/27/2020
Borrower(s)	Implementing Agency(ies)		
Ministry of Finance	Ministry of Environment, FENAKA Corporation Limited, State Electric Company Limited (STELCO)		

**Proposed Development Objective(s)**

The development objective is to increase generation capacity from renewable energy sources and facilitate integration of renewable energy.

Financing (in USD Million)	Amount
Total Project Cost	117.00

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

The Project will mobilize private sector investment in solar photovoltaic (PV) generation capacity, support battery energy storage solutions (BESS) deployment and grid modernization to enable variable renewable energy (VRE) integration and provide technical assistance for institutional capacity building and pipeline development. The project design would allow to increase renewable energy penetration in island grid systems with technical constraints to absorbing renewable energy, and thus further scale up investment in renewable energy.



Component 1 – Solar PV Risk Mitigation (US\$36 million IDA Guarantee and US\$4 million CTF Contingent Recovery Grant). This component aims to leverage the success of the previous World Bank programs in the Maldives (including the ASPIRE Project (P145482)) to support the government in increasing the solar PV capacity through private sector participation as independent power producers (IPPs). Component 1 will provide risk mitigation package, using an IDA Guarantee, to private sector IPPs which are selected through competitive tendering to install and operate solar PV generation facilities. This component covers various solar PV applications, including rooftop PV, land-based PV and floating PV, across all islands not only Greater Malé and larger islands, but also outer islands and atolls. The structure of the risk mitigation package will be equivalent to that of the ASPIRE Project, which has been proven in the market. As part of the bidding package, a US\$36 million IDA Guarantee and US\$4 million CTF Contingent Recovery Grant will be provided. CTF Contingent Recovery Grant will be used to fund an escrow account to backstop short term payment delays by STELCO/FENAKA under power purchase agreements (PPAs). IDA Guarantee will be provided to partially cover termination events caused by defaults for which either STELCO/FENAKA or the Government of Maldives is responsible.

Component 2 – Battery Energy Storage Systems (BESS) (US\$13 million CTF Loan). This component will support deployment of BESS in Addu City and other islands to enable a high penetration of solar PV in the power system while ensuring reliable supply in a cost-efficient manner. As the share of renewable energy in the power system continues to grow, with support under Component 1, particularly rapidly in islands with a smaller grid, integrating variable renewable energy (VRE) while maintaining or improving quality of service poses significant challenges to STELCO and FENAKA. BESS will be introduced to selected grid systems to provide ancillary services, load shifting and other benefits and address challenges in integrating VRE. A CTF concessional loan of US\$13 million will be provided to procure and operate about 30-40 MWh of BESS in the selected systems. To ensure a proper life cycle management of the BESS deployed under the Project, the contract with suppliers will include provisions on safety infrastructure during operation and used battery management and disposal in accordance with international standards.

Component 3 – Grid Modernization for VRE Integration (US\$1 million IDA Credit and US\$10 million from other IFI co-financing). This component will support grid upgrades and reinforcement to accommodate an increasing volume of renewable energy and BESS, especially for longer duration, in selected grid systems. The current grid systems in many islands are obsolete and insufficient to integrate a high share of solar PV and BESS and optimize grid operation among multiple sources of generation or supply. The existing grids across the Maldives will be assessed for investment requirements, considering a potential growth in electricity demand, renewable energy and electric vehicles (EVs). The main scope will include strengthening network capacity, deploying supervisory control and data acquisition (SCADA) systems and optimizing interactions among renewable energy generation, BESS and existing conventional power plants. As the penetration of solar PV increases, interconnection among islands will be also considered to improve system balancing and flexibility, which helps integration of solar PV. Charging stations can be also supported to promote the adoption of EVs and electric scooters and help efficiently manage their additional electricity load. The Bank is in discussion with other international financial institutions (IFIs) to provide loans to co-finance this Component.

Component 4 – Technical Assistance (US\$3 million CTF Grant). This component will focus on technical assistance (TA) support for (i) institutional capacity building for planning, implementing, operating, and monitoring power systems that can absorb increasing amounts of renewable energy and deploying BESS with appropriate risk management; (ii) development of pipeline that would cover identification of appropriate subproject sites, resource assessment, pre-feasibility work, aggregation of opportunities into saleable subproject bundles; (iii) technical assistance on supporting



the development of sustainable energy sector, including but not limited to feasibility assessment of investment in EV charging stations and associated infrastructure, potential energy efficiency policies and engagement, and improving financial sustainability of the power sector; and (iv) project management cost.

#### D. Environmental and Social Overview

D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social]  
The project will have a nation-wide coverage and project sites can be located on any inhabited islands. In terms of geography, Maldives is an island nation in the Indian Ocean oriented north-south off India's Lakshadweep Islands. It consists of 1,192 coral islands grouped in a double chain of 26 atolls, with total land area of approximately 300 Km<sup>2</sup>, with islands varying in size from 0.5 km<sup>2</sup> to 5.0 km<sup>2</sup>. The country's atolls encompass a territory spread over roughly 90,000 km<sup>2</sup>, making it one of the world's most geographically dispersed countries. Over 200 of the 1,192 islands in the Maldives are habituated by the country's population, with an average of 5-10 islands in each atoll being inhabited islands. Generally, inhabited islands have infrastructure such as housing, roads and other facilities built in. A significant number of uninhabited islands in each atoll have also been converted to resorts and tourism facilities, and some even house infrastructure such as industrial facilities and airports.

The islands of Fuvahmulah City (Nyaviyani Atoll), Thinadhoo (Gaafu Dhaalu Atoll ), Eydhafushi (Baa Atoll), Hinnavaru (Lhaviyani Atoll), and Kulhudhuffushi (Haa Dhaalu Atoll), which are among of the islands being explored for project interventions, are all atoll capitals that are populated and developed for human habituation. In addition the project will also focus on the Greater Male Region and Addu. The Greater Male region houses the capital city of Male and many of the most populated inhabited islands and resort islands as well as the country's main industrial islands and airport. The region is fairly more populated in comparison to the southern region. However, the generic topographic, ecological and climatic conditions across the atolls do not vary on great scale. Addu, being the second largest city of Maldives has the highest population density outside the capital Male'. With a registered population of more than 31,000, it is one of the only two atolls of the Maldives belonging to the southern hemisphere and has a land area of 15,000 hectares. The coastal marine ecosystems of the atoll include reef systems, in the north and south of the atoll, as well as in the periphery of the intra atoll basin. The Atoll has the largest brackish fresh water pond in the Maldives and is a mangrove area of high significance, located in the northern tip of the island of Hithadhoo (Eidhigali Kilhi).

Presently, 44 percent of all settlements in the Maldives (including 47% of houses, 80% of powerhouses, 75% of communications infrastructure, and 90% of waste disposal sites) are within 100 meters of the shoreline. Proximity of critical infrastructure to the shoreline has made these urban infrastructure assets vulnerable to submergence and/or damage. Further, the absence of a comprehensive regulatory framework and human resources to govern building and construction activities in the Maldives has led to uncontrolled urban development and an unregulated construction sector. This has resulted in deaths and injuries at construction sites and buildings being completed without the requisite safety measures and safe construction practices.

In terms of the energy sector, the total installed capacity in Maldives in 2018 was 410 MW, with 247 MW in inhabited islands, 20 MW in industrial islands and 144 MW on resort islands. Likewise, there is unevenness in terms of electricity consumption—the national annual consumption is around 700-750 GWh with the Greater Male Region accounting for 60% of the total consumption. Diesel accounts for 95% of the installed capacity in the Maldives and renewable energy is only 4.26% of energy mix. Presently, each island has its own power system and operates small, isolated grids with



the Greater Male region having the largest system with 88MW. The large number of dispersed grid system poses significant challenges on operation and management of logistics, thus leading to increased cost of electricity.

#### D. 2. Borrower's Institutional Capacity

The Government of Maldives (GOM) has a number of environmental policies, regulations and standards of specific relevance to environmental protection as well as on Solid Waste Management (SWM). The Environmental Impact Assessment (EIA) Regulations 2007, has been the basis for carrying out EIA. All renewable energy projects have been categorized as projects that will require the preparation and subsequent clearance from the Environmental Protection Agency (EPA). The EPA has a sound technical capacity and track record of ensuring the adequacy of EIAs and their implementation. The Waste Management Regulation which became effective in February 2014, sets standards for the management of municipal, industrial and special waste (which includes hazardous waste), issuance of permissions in relation to waste management, transportation of waste, information sharing/reporting and penalizing for non-compliance. The Waste Management Department (WMD) of the Ministry of Environment (ME) is mandated to ensure the proper implementation of the regulations.

The Employment Act 2008, Immigration Act 2007, Anti-Human Trafficking Act 2013, Pensions Act 2009, Regulation on Employment of foreign workers in the Maldives 20011, Work Visa Regulation 2010, Regulation on the Safety Standards for Construction Work, are the main regulations that govern labor and working conditions in the Maldives. Further, Maldives became a member state of the ILO in 2009 and has ratified all the ILO's 8 core conventions on fundamental labor rights. The Land Act 2002 and Land Use Planning Regulation of the Maldives are the main regulations that govern the allocation of land for different purposes and uses, and other issues regarding the issuing of land, and the sale, transfer and lease of Maldivian land. Additionally, the Right to Information Act 2014 determines the right of the general public to access information produced, held or maintained by state institutions to enhance transparency and accountability to citizens.

The ME will be the main project proponent with a Project Management Unit (PMU), and the State Electric Company (STELCO) that purchases electricity from private suppliers and provides electricity services to Male' Region, and FENAKA Corporation that provides electricity and other utility services to all inhabited islands of the Maldives, except Male' Region, will implement Components 2 and 3 of the Project. Being the key line agency implementing activities with regard to renewable energy, solid waste management and environmental safeguards for the country and with a history of implementing several Bank-financed projects and implementation of environmental and social safeguards in a satisfactory manner, the institutional capacity of ME is assessed as being satisfactory. The ME has also been implementing stakeholder engagement and grievances redressal mechanisms as per World Bank standards ardently over the last decade.

Besides the experience with the ongoing project, ASPIRE project, STELCO and FENAKA do not have sufficient experience in directly implementing Bank projects, including those relating to management of social and environmental risks and impacts. To mitigate this risk, a detailed assessment on the capacity of STELCO and FENKA will have to be carried out during preparation. Further, while the PMU of ASPIRE project and associated Island Councils have prior experience in managing safeguards issues under the renewable energy sector, additional support will be required to build capacity on ESF as well as associated safeguards with BESS systems and other new sectoral project interventions. In this regard, capacity building activities Component 4, will be used specifically for this purpose.



## II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

### A. Environmental and Social Risk Classification (ESRC)

Moderate

#### Environmental Risk Rating

Moderate

The proposed project activities include the conversion to solar energy to produce electricity via the establishment of floating, land and roof top solar energy generation systems, which will reduce the fossil fuel-based energy production dependency in the Maldives. The energy storage systems and grid upgradation works to the existing grid, can provide social and environmental benefits through the improvements of energy resilience and efficiency. They will also promote the increased use of clean electricity from renewable sources. Although specific information on subprojects such as the exact locations are unknown at this concept stage, the proposed subprojects are not likely to be complex. The footprint size of proposed subprojects are expected to be small to medium in scale. Project sites, including those to be selected for land based solar installation, BESS system installation and power houses and grid infrastructure will be on inhabited islands and in areas where anthropogenic activities have taken place already. Areas such as harbors, jetty areas and docks, are being explored as sites for the establishment of floating solar systems to ensure they are located away from sensitive lagoon and marine areas and other environmentally sensitive locations. Negative environmental impacts that have moderate risks are associated with the solar energy generation system investments. The grid upgradation works are expected to be localized in nature and arise only during the construction/upgradation stage and future decommissioning of the solar energy systems at the end of their lifetime. These impacts would be in the form of civil works related environmental impacts such as localized dust, noise and minor worker and public health and safety issues as well as waste generation. While the proposed Battery Energy Storage System (BESS) are not complex and are small in installation footprint, the environmental risks associated with this activity will be moderate in nature. In particular, potential fire and explosion risks and environmental hazards related to the disposal of used batteries containing hazardous waste will be mitigated via risk management measures that will include product specifications and “cradle to grave” provisions in the contracts of supplier for batteries used in the BESS and solar cells in accordance with International best practice. Due to these reasons the overall environmental risks and impacts have been assessed as moderate at the project concept stage.

The Ministry of Environment (ME) has demonstrated good capacity and experiences for successfully implementing World Bank safeguards and WBG ESHS Guidelines for over a decade. Sector specific E&S risks have also been successfully managed under the ASPIRE project. Further capacity is required on E&S due diligence, in line with the ESF. In accordance with adaptive management approach, the Risk Classification will be reviewed and changed at a future date if necessary.

#### Social Risk Rating

Moderate

Social risks associated with the project is rated as being ‘moderate’ at the concept stage. The project is expected to bring positive social impacts through the promotion and use of renewable energy technology and increased energy efficiency. Proposed conversion to solar energy to produce electricity will reduce the fossil-fuel based power generation, which is identified as the best solution in terms of cost-benefits and socio-environmental needs of the Maldives. The installation of solar PVs is a source of temporary and permanent employment since it will generate



both technical and unskilled jobs in design, installation, operations and maintenance, project development and marketing. Further, at the household level, the project is likely to result in cost savings, increase income levels of households, improve standard of living, and increase property value in the project location.

Project activities, including installation of land-based and floating solar systems as well as installation of Battery Energy Storage System (BESS), power houses and grid infrastructure, are not likely to cause significant social risks on the community in terms of land acquisition and resettlement. In case solar panels are installed on roof tops of private or public buildings, roof lease will be signed between the owner and the developer; and in cases of ground-mounted PV installations, the acquisition of the land will be a private transaction with no involuntary resettlement. Installations of the solar panels in port areas, residential, commercial areas, poses potential risks in terms of disturbances to commercial activities, restriction on access to land or use of other resources, including marine and aquatic resources. Further, there are culturally sensitive buildings in the Maldives, such as mosques, cultural or historical buildings, cemeteries, etc., that may become a source of public resentment if used for solar panel installation.

Other social risks associated with the project include possible exclusion of certain groups, including local communities, in stakeholder consultations as well as the decision making process relating to project activities (e.g., specific sites for the installation of the solar panels); and insufficient engagement and coordination with different stakeholders associated with the project, including the different public utilities, private sector, local communities, etc. While the project is expected to generate employment opportunities, the non-use of local manpower during the construction of the infrastructures could be a potential source of social tension at the local level. Further, there are also risks associated with labor and working conditions, particularly since most of the workers recruited during the construction/installation phase are likely to be migrant workers. The influx of such migrant workers increases the risks of social conflicts, increased burden on and competition for public service provisions, increased risk of illicit behavior and crime, local inflation of prices, increased risks of gender-based violence, etc. However, these potentially adverse social impacts are likely to be minimal, site-specific and manageable with appropriate mitigation and due diligence measures in place.

## B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

### B.1. General Assessment

#### ESS1 Assessment and Management of Environmental and Social Risks and Impacts

##### *Overview of the relevance of the Standard for the Project:*

The proposed solar photovoltaic systems and energy storage investments are anticipated to have indirect environmental benefits, including the improvements of energy resilience and efficiency and the decrease of CO<sub>2</sub> emission through the integration of more clean electricity from renewable sources as the Maldives is currently heavily dependent on energy generation via the burning of fossil fuels. The potential impacts associated with solar cell and BESS installation works and grid upgradation works that will be financed via the project will lead to mainly small scale localized environmental impacts during the civil works stage due to the expected scale and footprint. During the installation of photo-voltaic systems, on land and in water, potential impacts include those such as the need for small-scale land clearance, dust, noise, occupational health and safety. Likewise, impacts associated with operation of such systems include noise, aesthetic impacts and waste generation associated with decommissioning of systems at the end of their lifetime which will be managed via environmental screening and management instruments such as Environmental and Social Management Plans (ESMPs). BESS and solar panels produce a special



type of hazardous waste for which the Maldives does not have appropriate final disposal facilities. As a risk management measure, via project design, the bidding documents and contracts with contractors/suppliers will include mandatory “cradle to grave” provision for the safe transport, installation, operation & maintenance and disposal of used batteries and other hazardous wastes in accordance with international best practice.

In terms of social risks and impacts, the project aims to reduce the cost of electricity production in the Maldives and improve energy security thus leading to significant positive benefits at the household as well as national level. Social risks in terms of land acquisition and resettlement are not expected. However, installations of the solar panels in residential, commercial areas, and culturally sensitive buildings poses potential risks in terms of disturbances to commercial activities, restriction on access to land or use of other resources, etc., that could potentially become a source of public resentment. Exclusion of vulnerable groups in stakeholder consultations as well as the decision making process relating to project activities; insufficient coordination with different stakeholders associated with the project, including the different public utilities, private sector, local communities, etc; non-use of local resident qualified manpower for the employment generated through the project; risks of poor labor management and working conditions; and high rates of labor influx, particularly with the recruitment of migrant workers, could potentially escalate social conflicts, increase burden on and competition for public service provisions while also increasing the risks of gender-based violence.

Following the national regulations that require environmental clearances for the establishment of energy projects as well as the World Bank's ESF, the project will develop an Environmental and Social Commitment Plan (ESCP). It is recommended that the ASPIRE Environmental and Social Management Framework (ESMF), which has been prepared in line with IFC performance standards and therefore in line with the ESF, be updated. Among others, the update would include: sub-project eligibility criteria and exclusion lists; site selection procedures; procedures for screening all sub-projects for E&S risks and impacts; designing assessment and mitigation measures in accordance with relevant ESSs; a framework for monitoring and reporting on due diligence implementation; and institutional arrangement for staffing and capacity building in line with the ESF. The ESMF will also be updated via a i) Review of the existing regulatory framework and their enforcement related to energy storage sector within the Maldives, along with mechanisms proposed to fill any major gaps if identified; and ii) a due diligence report of main battery producers and battery disposal sites as the attachment to support necessary actions proposed in the ESMF and ESCP if any, for example, adopting sustainable sourcing requirements in the project's procurement arrangements.

During project preparation, the World Bank will further assess the relevance of ESSs for this project and verify that the ME completes the ESMF proportionate to the project risk of each subproject which will have to prepare sub-project specific Environmental and Social Assessments and Environmental and Social Management Plans (ESAs and ESMPs) in line with the ESSs as soon as they are identified. Labor Management Procedures, Stakeholder Engagement Plan and Environmental and Social Commitment plan will also be prepared and disclosed prior to appraisal, in addition to the updated ESMF. To address E&S capacity gaps, ME is required to establish a time-bound capacity development plan in line with the ESF and include it in the ESCP. In addition, for any TA activities under Component 4, it should incorporate reference to the E&S Standards in the TORs to ensure that activities and outputs are consistent with the ESF.

#### **Areas where “Use of Borrower Framework” is being considered:**



The use of Borrower Framework is not being considered for the project. The project will comply with the World Bank's new Environmental and Social Framework (ESF) and its Environmental and Social Standards (ESS), and will also be subjected to the national and local permits and clearances as per the existing legal-institutional framework.

#### **ESS10 Stakeholder Engagement and Information Disclosure**

ESS 10 is considered relevant for the project since there are a variety of stakeholders associated with the project, including (i) individuals and groups that would be affected by the project (e.g., STELCO/FENAKA, local residents, fishermen, commercial establishments, users of the port, etc.) and (ii) other interested parties (e.g., island and city councils, utility companies, developer, private sector, NGOs, etc). Accordingly, consultations and disclosure of information with stakeholders will be at the core for planning and implementation of the project. The ME will map all stakeholders, identify their interests in the project, plan on engagement with these stakeholders, develop procedures for disclosing information about the project, prepare a procedure for addressing and responding to grievances, and devise a mechanism for reporting to the stakeholders. These issues and measures will be included in the Stakeholder Engagement Plan (SEP) prepared during project preparation that will be a part of the ESCP agreed with the borrower. The SEP so prepared during preparation will be updated proportionate to the nature and scale of project during implementation.

#### **B.2. Specific Risks and Impacts**

##### **A brief description of the potential environmental and social risks and impacts relevant to the Project.**

##### **ESS2 Labor and Working Conditions**

ESS2 is considered relevant for the project. The expected types of workers to be employed by the project include: Direct workers (workers and staff at the PMU and PIU); Contracted workers (contractors, sub-contractors, laborers); Primary supply workers (suppliers of construction materials such as aggregates, equipment, etc.); and Community workers. While the scope of construction work involved is comparatively small, it will require contracted workers to be brought in. In the context of the Maldives, where labor, both skilled and unskilled is scarce, to meet this demand, it may or may not be possible to find the required labor force and associated goods and services locally for a number of reasons, among them, worker's unavailability and lack of technical skills and capacity. Therefore, a sizeable proportion of the labor force may have to be brought in from outside the project area, in the form of migrant workers.

The various categories of workers hired for the anticipated civil works (as required) and the influx of 'followers' will be subject to the requirements of ESS2 (and ESS4), including clear information on the terms and conditions of employment, principles regarding non-discrimination and equal opportunity and the establishment of workers' organizations, rules regarding child labor and forced labor, and occupational health and safety measures. There will also be a grievance mechanism for labor issues, drawing on national laws and procedures. The project will apply the GBV Risk Assessment Tool and measures for addressing any risks associated with GBV, if relevant, will be included in an action plan following the GBV Good Practice Note prepared by the Bank.

A comprehensive Labor Management Procedure (LMP) in line with the requirements of ESS2, will be prepared and disclosed prior to appraisal. Further, to ensure health and safety of workers during the construction and operational phases of sub-projects to be financed via the project, an Occupational Health and Safety (OHS) plan, in line with the



World Bank Group Environmental Health and Safety Guidelines and Good International Industry Practice (GIIP), will be prepared as an Annexure to the ESMF in line with the nature of works expected via the project interventions. The OHS plan will provide guidance in the preparation of sub-project specific OHS actions and plans and will be specifically identified in the ESCP.

#### **ESS3 Resource Efficiency and Pollution Prevention and Management**

The proposed photovoltaic sub-projects, energy storage investments and grid upgradation works are designed to reduce curtailment and deploy new emerging use of Renewable energy in the Maldives. This is expected to lead to positive impacts overall, via the improvements of energy efficiency and the reduction of greenhouse emission through the use of fossil fuels for power generation. However, used solar cells and batteries are identified as hazardous waste which may pose health and safety risks to humans and the environment if environmentally sound final disposal is not undertaken. As the Maldives does not have existing standards or requirements for management (including storage, transportation and disposal) of hazardous waste, international best practice guidance such as the World Bank Groups Sectoral Guidelines on Solid Waste Management and strict criteria on producer management of waste, including the transport of decommissioned systems out of the country as part of the investments, will be followed via mandatory provisions in contracts with suppliers and contracts. These will be in line with both national legislation and applicable international conventions, including measures such as a buy back arrangement of hazardous waste by the suppliers. During project preparation, relevant domestic regulations, conventions and their enforcement will be reviewed against the requirements of ESS3 and the World Bank's applicable Environmental, Health and Safety Guidelines to confirm the adequacy of existing system for battery management and recycling in the Maldives. Necessary actions, once identified will be proposed in the ESCP at the appraisal stage to fulfill major gaps that may be identified. Since battery production and disposal are deemed critical in the management of potential E&S risks and impacts in the sector, due diligence will be conducted during project preparation to review the overall E&S performance of main battery producers and battery disposal sites in the market, via the TORs for ESA reports to support mitigation measures and actions proposed in the ESMS/ESCP.

#### **ESS4 Community Health and Safety**

The grid-side and demand-side subprojects sites where upgradation works will be conducted on existing grid facilities, will possibly be located adjacent to residential areas. While most of the workers employed during the construction phase are likely to be migrant workers. It is also anticipated that this expected influx of workers will be compounded by an influx of other people ("followers") who follow the incoming workforce with the aim of selling them goods and services, or in pursuit of job or business opportunities. The rapid migration to and settlement of workers and 'followers' in to already congested urban areas proposed for the project, could have adverse impacts in terms of risks of social conflicts, increased burden on and competition for public service provisions, increased risk of illicit behavior and crime, local inflation of prices, increased risks of gender-based violence, etc. Thus, the project-resulted disturbance to local communities is expected to be limited during construction phase and disturbances in the long term associated with the influx of migratory labour , also manageable. However, the operation of neighboring energy storage system may expose nearby communities to additional fire, explosion and electrical shock hazards associated with batteries and electrical systems. In addition, the operation of BESS will lead to the limited increase of noise level around the station. Following current national environmental legislation and ESF



requirements, safety assessment, firefighting review will be conducted as part of the Environmental and Social Impact Assessment process for all the project activities before implementation to ensure the integration of all the necessary safety measures into the project design, including minimum safety distance (with reference to the specifications for substations), container requirements, illumination system, air-conditioning and ventilation systems, fire-extinguishing systems, controlling systems, earthing systems, access control systems, electrical wiring, safety manual, noise abatement measures, etc. During preparation, relevant domestic practice will be reviewed against the requirements of ESS4 and the World Bank's applicable Environmental, Health and Safety Guidelines to confirm the adequacy of existing system in the Maldives. Necessary actions may be proposed in the ESCP at the appraisal stage if any major gap is identified.

#### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

Project activities, including installation of land-based and floating solar systems as well as installation of Battery Energy Storage System (BESS), power houses and grid infrastructure, are not envisaged to cause impacts associated with land acquisition and resettlement. In case solar panels are installed on roof tops of private or public buildings, roof lease will be signed between the owner and the developer; and in cases of ground-mounted PV installations, the acquisition of the land will be a private transaction with no involuntary resettlement. The project will ensure that the owner agrees to sign the roof lease agreement voluntarily and without any pressure. The roof lease agreement will be a valid and time-bound legal agreement, and the project will develop template for such agreement to be followed by the contractor.

#### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

Due to sensitive nature of the Maldives islands and their surrounding that consist of important natural habitats, both terrestrial and marine, negative impacts are possible that could generate as a result of improper location, construction or decommissioning of solar PV systems and BESS systems. Attention will need to be given to protection and conservation of biodiversity at project sites and captured in respective ESAs, which include measures to avoid, minimize, mitigate or offset any potential impacts to natural habitats and living natural resources. While most project activities are expected to be proposed in areas that are inhabited and potentially away from environmentally sensitive areas, under the ESMF all subprojects will be screened against the exclusion list to eliminate the activities situated in any nature reserve, critical habitat or scenic sites. Relevance of ESS6 will be further reviewed during subprojects preparation when exact project sites will be identified and finalized and will be assessed in the ESIA.

#### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

This ESS is not relevant in the project area. There is no evidence suggesting the presence of Indigenous Peoples/Sub-Saharan Historically Underserved Traditional Local Communities in the Maldives.

#### **ESS8 Cultural Heritage**

Subprojects at grid and demand sides are unlikely involve risks or impacts on tangible or intangible cultural heritage. While cultural heritage resources are relatively well documented on inhabited islands, there is no adequate



documentation of such on uninhabited islands. The project is however expected to take place only on inhabited islands. It will be important to ensure that the proposed solar photovoltaic sub-projects do not impact any buildings of heritage significance (for example, mosques, heritage sites or cultural sites) in the Maldives in terms of aesthetic impacts as well. Regarding subprojects at generation side, potential impacts on cultural heritage (if any) can be identified during subproject screening and due diligence review, and should be avoided or otherwise mitigated during preparation. The ESMF will include due diligence procedures in line with ESS8 to screen for risks and impacts on cultural heritage in its E&S Screening process and to apply the relevant requirements of ESS8 where subprojects are found to have significant risks and impacts on cultural heritage. Relevance of ESS8 will be further reviewed during subprojects preparation.

#### **ESS9 Financial Intermediaries**

Given the nature of the project, this standard is not relevant as there will not be any financial intermediaries that will be involved.

#### **B.3 Other Relevant Project Risks**

At this stage, there are no other project-specific risks of relevance.

### **C. Legal Operational Policies that Apply**

#### **OP 7.50 Projects on International Waterways**

No

The proposed project activities do not have any impacts on international waterways and therefore this policy is not triggered

#### **OP 7.60 Projects in Disputed Areas**

No

There are no disputed areas in the Maldives therefore this policy is not triggered

## **III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE**

### **A. Is a common approach being considered?**

No

#### **Financing Partners**

The project does not include any financing with partners.

### **B. Proposed Measures, Actions and Timing (Borrower's commitments)**

#### **Actions to be completed prior to Bank Board Approval:**

Actions to be completed prior to Bank Appraisal:

1. Prepare and finalize draft Environmental and Social Commitment Plan (ESCP)



2. Update and finalize the Environmental and Social Management Framework of the ASPIRE operation in line with the ESF requirements and relevant ESSs.
3. Prepare ESIA TORs in line with the ESF and ESS requirements for any front runner sub- projects identified during project preparation.
4. Prepare a Stakeholder Engagement Plan (SEP) and GRM.
5. Prepare Labor Management Procedure, alongside GBV action plan, if relevant.
6. Conduct a capacity assessment of the implementing Agencies as part of updating the ASPIRE ESMF and develop a time-bound E&S capacity enhancement plan, which will be incorporated into the ESCP.

**Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):**

- Capacity of project teams on identifying and managing environmental and social issues, specifically in relevance to BESS systems where the experience will be new
- Implementation of the Stakeholder Engagement Plan, and establishment and functioning of an effective GRM
- Implementation of Labor Management Procedure, and GBV Action Plan based on the GBV Good Practice Note, if relevant.
- Implementation of sub-project specific ESF instruments such as ESIA, ESMP, etc.
- Preparation and implementation of an Occupational Health and Safety Management Plans, Community Health and Safety Plans.
- Implementation of the capacity building program on Environment and Social Standards
- Incorporation of E&S and OHS Standards in the bidding documents for contractors, sub-contractors and Supervision Consultants where relevant

The ME will report to the Bank and agree on measures and actions if a sub-project risk profile increases significantly at any stage during the life of the project.

**C. Timing****Tentative target date for preparing the Appraisal Stage ESRS**

30-Apr-2020

**IV. CONTACT POINTS****World Bank**

Contact: Joonkyung Seong Title: Senior Energy Specialist



## The World Bank

Accelerating Renewable Energy Integration and Sustainable Energy (P172788)

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### Borrower/Client/Recipient

Borrower: Ministry of Finance

### Implementing Agency(ies)

Implementing Agency: Ministry of Environment

Implementing Agency: FENAKA Corporation Limited

Implementing Agency: State Electric Company Limited (STELCO)

### V. FOR MORE INFORMATION CONTACT

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### VI. APPROVAL

Task Team Leader(s): Joonkyung Seong, Amit Jain

Practice Manager (ENR/Social) David Seth Warren Recommended on 03-Dec-2019 at 14:43:44 EST

Safeguards Advisor ESSA Agi Kiss (SAESSA) Cleared on 19-Dec-2019 at 21:12:57 EST