



# Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 20-Feb-2020 | Report No: PIDISDSA25844

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

Country Sao Tome and Principe	Project ID P169196	Project Name STP Power Sector Recovery Project	Parent Project ID (if any) P157096
Parent Project Name STP Power Sector Recovery Project	Region AFRICA	Estimated Appraisal Date 20-Feb-2020	Estimated Board Date 19-Mar-2020
Practice Area (Lead) Energy & Extractives	Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance and Public Administration	Implementing Agency Agencia Fiduciaria de Administracao de Projeto (AFAP)

## Proposed Development Objective(s) Parent

The project development objectives are to (i) increase renewable energy generation and (ii) improve the reliability of the electricity supply.

## Components

Support to institutional reform and sector planning  
Strengthening operational performance and governance of EMAE  
Investing in enhanced reliability of electricity generation, transmission and distribution  
Project Implementation Support

**PROJECT FINANCING DATA (US\$, Millions)****SUMMARY**

<b>Total Project Cost</b>	12.00
<b>Total Financing</b>	12.00
<b>of which IBRD/IDA</b>	12.00
<b>Financing Gap</b>	0.00

**DETAILS****World Bank Group Financing**

International Development Association (IDA)	12.00
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IDA Grant	12.00
Environmental Assessment Category	
B-Partial Assessment	
Decision	
The review did authorize the team to appraise and negotiate	

Other Decision (as needed)

## B. Introduction and Context

1. This Project Paper seeks the approval of the Executive Directors for a proposed additional financing (AF) in the amount of US\$12 million equivalent by the International Development Association (IDA) to the Democratic Republic of São Tomé and Príncipe (STP) for the Power Sector Recovery Project (PSRP) (P157096). US\$10 million of the AF will cover cost overruns for the rehabilitation of the Contador hydropower plant, increasing the installed capacity from 2.2 MW to 3.2 MW, and US\$2 million is toward the replacement of incandescent bulbs with high-efficiency light emitting diode (LED) lamps. This Project Paper also seeks the extension of the current project closing date by 36 months, from June 30, 2021, to June 30, 2024, to allow sufficient time to complete the activities under the project.

2. The parent project, financed through an IDA grant in the amount of SDR 11.3 million (US\$16 million equivalent) and cofinanced by the European Investment Bank (EIB) in the amount of US\$13 million, was approved by the Board of Executive Directors on July 5, 2016, and became effective on November 1, 2016. The Project Development Objectives (PDOs) of the parent project are to (i) increase renewable energy generation and (ii) improve the reliability of the electricity supply. The parent project aims to support sector recovery by financing the most critical infrastructure investments and providing technical assistance for capacity-building and sector reforms. The project is also aligned with São Tomé and Príncipe's Country Partnership Strategy FY 2014–18<sup>1</sup> target of establishing a more reliable investment climate in the energy sector by supporting the Government's effort to implement sector reforms through the capacity building of the sector institutions.

3. The parent project has four components: (a) support to institutional reform and sector planning; (b) strengthening operational performance and governance of the National Water and Electricity Utility (*Empresa de Água e Electricidade*, EMAE); (c) investing in enhanced reliability of electricity generation, transmission, and distribution; and (d) support to the project implementation unit.

4. The proposed AF is required to (a) cover a cost overrun of US\$10 million which was identified during the preparation of the design studies supported by Subcomponent 3.1: 'rehabilitation of Contador

<sup>1</sup> Report No. 83144-ST, May 28, 2014.



hydropower plant and operations and maintenance support program' and (b) scale up the PSRP operation by adding a new subcomponent totaling US\$2 million to support a comprehensive demand-side management program to mitigate supply shortages and improve the availability of electricity in São Tomé and Príncipe under Component 3 of the PSRP.

5. The proposed AF does not consider any new infrastructure investments, and the Environmental and Social Management Framework (ESMF) for the parent project already accounted for the possible expansion of the hydropower plant capacity. The anticipated impacts from the demand-side management program will be localized and mitigated through good design and operation, and none of the anticipated impacts will be irreversible. New safeguard policies will not be triggered and as such, the AF is classified as Category B, same as the parent project.

6. The proposed AF activities are fully incorporated in the components of the parent project. Hence, the Project Fiduciary Agency (*Agência Fiduciária de Administração de Projeto*, AFAP), the fiduciary agency for PSRP administration in São Tomé and Príncipe, will remain as the implementation agency for the AF.

## Country Context

7. São Tomé and Príncipe is a lower middle-income and small-island country facing typical challenges of small states. The country consists of two main islands in the Gulf of Guinea, with a surface area of 1,001 km<sup>2</sup>, and is administratively divided into six districts, in addition to the Autonomous Region of Príncipe (*Região Autónoma do Príncipe*). STP is a multiparty democracy and unitary state, with a total population of approximately 200,000 people, with 42.6 percent of the population at or below the age of 14. In 2018, the country's per capita gross national income was estimated at US\$3,430 in purchasing power parity (PPP), and its per capita gross domestic product (GDP) was US\$1,890. As a small-island country, STP is characterized by (a) a small population, (b) a small land area, (c) remoteness, and (d) a high fixed cost of public goods—all factors that affect the country's public capacity, trade, fiscal accounts, and human development.

8. Poverty reduction appears to have been rather stagnant in STP since 2010. Estimates based on growth and distribution assumptions indicate that around one-third of the country's population lives on less than US\$1.9 (2011 PPP) per day in 2019, a decline of roughly 2 percentage points relative to 2010. The change in poverty has been mainly attributed to economic growth (increases in the mean value of household income) rather than the redistribution of income across the population, and inequality in São Tomé and Príncipe remains high for international standards (Gini index of 56.3 in 2017). The Human Development Index, stands at 0.59 for STP, lagging behind the average for Sub-Saharan Africa (at 0.62).

9. Economic growth, which has been overly reliant on public expenditure, has been declining due to reduced government funding (external loans, grants, and own-source revenues) and more recently due to the energy crisis. The country's GDP growth rate slowed from an average of 4.9 percent in 2010–15 to 2.7 percent in 2018. In the same period, public investments dropped from an average of 22.1 percent of GDP to 9.0 percent, while grants declined from an average of 15.2 percent of GDP to 8.2 percent. Tax revenues also declined by about 3 percentage points of GDP between 2010–15 and 2018. As a result, public debt increased significantly, reaching 118 percent of GDP as of June-2019. The rise in public debt was further propelled by a build-up of arrears of government enterprises and state-owned enterprises



(SOEs) including EMAE, which increased domestic debt. While the agriculture and tourism sectors—where most private sector-led growth originates—grew in the last 10 years, they have not been able to replace the Government as the economy’s main growth driver. The combination of a weak private sector and strained public sector reduced economic growth resulting in increasing energy outages, a liquidity crunch, and high exposure of banks to the public sector.

10. The macroeconomic situation remains challenging, but recent government measures and the new IMF program have been addressing these imbalances. The Government has acknowledged the severity of the country’s current macroeconomic situation. The approved 2019 budget promotes fiscal consolidation of more than 1 percentage point of GDP. Moreover, a new IMF program has been approved by the IMF’s Board of Directors in October 2019. The new three-year program is expected to be made available under the Extended Credit Facility modality and for a total of US\$19 million. It will focus on fiscal consolidation, SOE reform (including EMAE), and monetary tightening to support the country’s currency peg.

11. The October 2018 elections and the subsequent change in administration reset the policy dialogue on critical reforms related to the energy sector. Parliamentary and local elections were held in October 2018, which yielded a coalition government that took office at the end of November 2018. Coalition governments are historically unstable in STP and have difficulty in advancing reforms. The change of governments also led to a reshuffle in most government positions while some expenditure and borrowing made at the end of 2018 delayed a thorough assessment of the macroeconomic picture. The new administration needed time to familiarize itself with the macroeconomic condition it had inherited as well as with the ongoing policy reforms.

12. Public debt has been increasing since STP had its debt forgiven in 2008 due to external borrowing, budget deficits, loss-making SOEs, energy subsidies, and government arrears. A large part of the public investment that boosted growth from 2001 to 2014 was paid for by external borrowing, leading to an increase in public debt. In recent years, the Government expanded the electricity grid, providing access to energy to more people in both islands. Greater access, however, came with the higher public debt since EMAE is a loss-making SOE, whose debt is guaranteed by the Government with tariffs set on average at half of its costs. The decline in budget revenues has led the Government to fail to pay its suppliers on time, accumulating arrears with EMAE, the telecom company and other suppliers, and most recently with domestic banks, which have financed investments of SOEs, autonomous agencies, and other sovereign powers, and also the government payroll. Finally, the debt also increased during part of this period due to lower fuel prices in STP than abroad, creating a fuel subsidy that was assumed by the Government in the form of debt with the fuel supplier. This subsidy has been reverted since 2016 as domestic prices are now higher than international prices, and the difference is being used to reduce this debt.

### Sectoral and Institutional Context

13. The power sector in STP is small, and the institutional actors are commensurately few. Nonetheless, they have varying degrees of capacity and overlapping mandates. The Ministry of Finance and Public Administration (MoFPA) oversees EMAE’s financial performance and is responsible for approving tariffs. Although EMAE’s finances are consolidated and published in the EMAE’s annual report, these accounts are not audited by an independent body and accounting methods are opaque. The Ministry of Infrastructure, Natural Resources, and Environment (MINRA) oversees EMAE’s technical performance but has few technical resources of its own. The General Regulatory Authority (*Autoridade*



*Geral de Regulação*, AGER) is the multisector regulatory agency with mandates in the telecommunications, water, and electricity sectors. In December 2014, it was mandated with regulating the energy sector, including regulating tariff, permitting, and overseeing long-term sector planning. A planning entity was also recently created under MINRA.

14. Electricity supply is constrained in STP. The current installed generation capacity is 26 MW of which around 20 MW was available in 2017 comprising 92.4 percent thermal (18.35 MW) and 7.6 percent hydro (1.50 MW). This is insufficient to meet the maximum demand, which was estimated to be just less than 21 MW.

15. The already sluggish economy was adversely affected by an energy crisis in the second half of 2018 with effects lingering until 2019. São Tomé and Príncipe experienced a severe energy crisis in late 2018 as energy production capacity dropped from 20 MW to as low as 7 MW as diesel generators systematically failed, a result of inadequate infrastructure maintenance. The water and energy company, EMAE, responded to a crisis by cutting the electricity supply, leaving parts of the country with energy access for only a few hours a day and other areas without energy for several days. The ensuing protests and widespread popular discontent led to roadblocks that constrained fuel distribution in the country. Both the electoral period and the energy crisis caused a significant slowdown in economic activity that led to lower tax collection, a scarcity of goods, higher inflation, and lower foreign exchange inflows. The Government still has not been able to settle the payment arrears to suppliers nor the bank loans taken to pay salaries. On the energy side, STP was able to bring energy production back to 16 MW in February 2019, reducing and rationalizing the blackouts. A contract for procurement of a total of around 10 MW thermal plants financed by British Petroleum was signed in August 2019, which will allow energy supply to be reestablished to the full demand level by March 2020 and conduct proper maintenance of the other generators. On the other hand, the National Fuel Company (*Empresa Nacional de Combustíveis*, ENCO), reduced the quantity of fuel import and raised its prices for EMAE due to the growing payment arrears from EMAE.

16. The World Bank has been supporting the Government with a transaction advisor to find a short-term solution while fast-tracking the implementation of medium- to long-term options determined by an LCPDP study financed by the parent PSRP. The study identified the development of the limited hydro potentials combined with solar and thermal power plants.

17. Electricity coverage in STP extends to about half the population, and electricity access is currently estimated at 59 percent with transmission and distribution networks totaling over 306 km. The electricity access rate is relatively high than most countries in Sub-Saharan Africa. However, the network infrastructure is old and poorly maintained leading to reported frequent and prolonged outages.

18. Financials of the sector are also poor. Despite having one of the highest tariffs in the region with an average retail tariff of US\$0.21 per kWh, EMAE, the national utility, is unable to recover costs due to a generation mix that is overwhelmingly reliant on inefficient thermal capacity and expensive fuel imports. This combined with network losses of 39 percent, of which over 20 percent are nontechnical losses, keeps worsening the financials of the national utility.

### **C. Proposed Development Objective(s)**



Original PDO

19. The project development objectives are to (i) increase renewable energy generation and (ii) improve the reliability of the electricity supply.

Current PDO

20. No changes to the PDO are being proposed. The AF would support cost overruns identified under Component 3, Subcomponent 3.1: Rehabilitation of Contador hydropower plant and operations and maintenance support program. This subcomponent finances the works for the rehabilitation and potential expansion of the hydropower plant up to 3.2 MW. This subcomponent will also cover engineering aspects (design and supervision of works) and preparation of related safeguards documents. The new activity (Replacement of incandescent bulbs with high-efficiency LED lamps), under the proposed AF are aligned with the parent project PDO as the reduction in the demand (particularly at peak hours) will improve the reliability of the electricity supply.

Key Results

21. The PDO indicators of the parent project are (a) Direct project beneficiaries (number), (b) Female beneficiaries (Percentage), (c) Generation capacity of hydropower constructed or rehabilitated under the project (MW). The project’s Results Framework will be updated to reflect the increase in installed capacity of the hydropower plant from 2.2 MW to 3.2 MW and an increase in energy generation from 5.0GWh to 15.7GWh.

22. The intermediate-level indicators will be updated to include indicators on the new subcomponent supported by the AF as follows:

**Table 1. Updated intermediate-level indicators**

New Indicator	Description	Baseline	Target	Target Date	Database	Responsibility for Data Collection
Replacement of incandescent bulbs with LED lamps	Number of LED lamps used to replace incandescent bulbs  Monthly reporting showing number of LED lamps replacing Incandescent bulbs	0	150,000	August 31, 2020	Data collected by EMAE at the national level	EMAE



New Indicator	Description	Baseline	Target	Target Date	Database	Responsibility for Data Collection
Sustainability of LED lamp deployment Energy Efficiency Program	Adoption of Incandescent bulb phaseout policy by the GoSTP	NO	YES	End 2022	MoFPA, MoE	AFAP, EMAE
	Number of customs and other officials and agents concerned with market supervision trained in implementation of the policy.	0	6	End 2022	MoFPA, MoE	AFAP, EMAE

D. Project Description

Description of New Activities

23. **Rationale for AF to ensure implementation of rehabilitation of the Contador hydropower plant as originally planned under the parent project.** The rehabilitation of the existing Contador hydropower plant has been identified as a priority project by the GoSTP and confirmed in the recently finalized LCPDP, as the plant, in its current condition, is facing the risk of ceasing to operate as a result of lack of O&M (lack of spare parts for outdated equipment) and ageing of the facility. The proposed upgrade of capacity from 2.2 MW to 3.2 MW will lead to significant increase of renewable energy in the overall energy mix of the country at the date of commissioning (end of 2022). This will help replace a large amount of thermal generation, ensure better reliability of the overall energy system, decrease cost of generation, and improve quality of service to the end user. Effort to decrease cost of generation, in addition to the large reform program being implemented under the project, are also aligned with the overall objective of GoSTP to ensure financial sustainability of EMAE.

24. The bulk of the AF (US\$10 million) will therefore finance ongoing activities of the parent project, by covering the cost overruns identified in Subcomponent 3.1: Rehabilitation of Contador hydropower plant and operations and maintenance support program.

The AF will introduce one new Subcomponent for an amount of US\$2 million, defined as follows:

25. *Subcomponent 3.4: Demand-side management for residential customers and public buildings.* This subcomponent will finance the deployment of LED bulbs to replace incandescent lamps in use in households and public facilities includes the following implementation components and steps:

- (a) *Procurement of LED bulbs.* EMAE, with support from AFAP, will bulk procure 150,000 high-quality LED lamps. In addition to the LED bulbs, the procurement package will include two incandescent lamp crusher devices.



- (b) *Pre-shipment inspection, delivery, and storage of LED Bulbs.* An independent pre-shipment inspection of LED bulbs will be conducted according to the testing protocol, before the shipment of the LED bulb consignment to STP. Depending upon the agreed terms of the contract, the LED bulb consignment will be delivered to STP by standard sea shipment or by expedited air shipment. Once delivered, the LED bulbs will be stored at EMAE warehouse.

26. **Consumer awareness program.** About three months before the scheduled deployment of the LED bulbs, a comprehensive consumer awareness program will be initiated to inform the consumers about (a) the benefits of LED bulbs regarding reduced energy consumption, reduced energy bills, better-quality light outputs, and longer life; (b) LED distribution program for replacing incandescent lamps, and the details (dates, venues, and process of distribution); (c) location of the incandescent lamps in the house that should be replaced with LED bulbs, that is, the lamps that are used for longer hours such as in kitchen, family room, outdoor security lights, and so on; and (d) non availability of incandescent lamps in the market in the long term (after the incandescent lamp phaseout policy came into effect). The LED sensitization program will run in parallel with the commercial losses campaign and will be conducted by the same NGO currently developing the commercial losses awareness-raising and engagement initiative. This will ensure alignment and synchronization of the project's citizen engagement and awareness-raising interventions.

27. **Distribution of LED Bulbs.** The LED bulbs will be distributed to EMAE electricity consumers through: (a) the existing EMAE commercial/payment centers (which service 36,000 customers, wherein customers come to these two centers to pay their monthly electricity bills) and (b) door-to-door distribution for the remaining 3,000 customers (for this category of consumers, EMAE staff go to the consumer premises for revenue collection). In both cases, the EMAE official will check electricity bills, collect the three incandescent lamps from the consumer, provide three LED bulbs and log this transaction with each of the consumers into a paper or an electronic log book that will be consolidated at the national level for monitoring and reporting purposes. The collected incandescent lamps will be stored in the EMAE warehouse (for later destruction with the crusher procured under the same process).

28. **Destruction of incandescent lamps.** The incandescent lamps which are collected through the program will be destructed by the incandescent lamp bulb crusher devices in an environmentally sound manner and using standard procedures to ensure that the collected incandescent lamps do not go back into circulation, are not reused by people, and do not affect the environment.

29. **Measurement and verification of energy and demand savings.** Before and after the distribution phase, the relevant hourly electrical load data (including kW, kWh, KVARh, KVAR, and pf) for a two-week period (including holidays) will be collected for selected sample substations of EMAE. In addition, an ex-ante and ex post random sample survey of about 400 consumers of EMAE will be carried out using standardized questionnaires. The above data will be analyzed to cross-check the 'deemed savings' from the LED bulb replacements to estimate the overall impact in terms of reduction of electricity demand and energy consumption due to LED deployment.

30. **Phaseout policy for incandescent lamps.** To ensure long-term sustainability of the program, in parallel with the procurement and deployment phase, the GoSTP will initiate the process of formulating an import ban or phaseout policy for incandescent lamps, focusing on stopping the import of incandescent lamps into STP. The process will include drafting/designing of the incandescent lamp phaseout policy in



conjunction with updating of the customs list/schedule, in consultation with relevant stakeholders (customs department, importers, wholesalers, and retailers), awareness generation with consumers, and the required processing of approvals within the GoSTP. This policy is to be enforced within two years from the start of the deployment program.

### E. Implementation

#### Institutional and Implementation Arrangements

31. Under the parent project, AFAP is the fiduciary agency for the project administration in STP. AFAP has a track record in the implementation of projects financed by the World Bank and has the responsibility for the day-to-day management of the project and coordination of project-related activities. The current institutional and implementation arrangements will be maintained, and there will be no change to implementation arrangements.

### F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The rehabilitation and expansion of Contador hydropower plant will be undertaken in a forest considered secondary, inside the National Park Ôbo. Replacement of incandescent lamps is nationwide.

### G. Environmental and Social Safeguards Specialists on the Team

Paivi Koskinen-Lewis, Social Specialist  
Camilla Gandini, Social Specialist  
Nadia Henriqueta Gabriel Tembe Bilale, Environmental Specialist

### SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	Civil works activities related to the upgrading of the hydropower plant may generate potentially environmental and social risks and impacts such as noise, vibration, dust emission, increased traffic, including risks to the health and safety of the construction workers and surrounding communities. Given the nature of the works, the project is



classified as category B for Environmental Assessment (EA) purposes since potential environmental and social impacts are site-specific, minimal, and can be easily mitigated using appropriate measures and tools. An Environmental and Social Impact Assessment (ESIA) and ESMP have been prepared, consulted and disclosed in country on February 4, 2020 and at the World Bank InfoShop on February 6, 2020.

As for the incandescent bulbs, bidding documents for suppliers shall include measures of safe disposal of waste. Moreover, the procurement package shall include crusher devices to ensure proper and safe disposal of the incandescent bulbs. In addition, a waste management plan will be prepared during implementation and before the specific investment included in Component 3.4 is carried out. This plan will focus on the management (including recycling) and final disposal of the replaced incandescent lamps.

Performance Standards for Private Sector Activities OP/BP 4.03	No	This PS does not apply to the AF.
Natural Habitats OP/BP 4.04	Yes	Part of the infrastructures that make up the project, including six water catchments and part of the Adduction Channel, are located within the National Park Ôbo although mostly in the secondary forest zone. The Angular intake (which is subject to a visited waterfall), is an exception as there will be a reformulation of its design in order to better cope with the debris that gets into this very small intake system. Potential negative impacts on biodiversity will depend on the extent and location of the interventions to be undertaken, however, the client has prepared, consulted upon and disclosed on February 6, 2020 an ESIA/ESMP which includes mitigation measures to ensure that likely negative impacts are adequately captured and taken into consideration during sub projects preparation and implementation.
Forests OP/BP 4.36	No	Although part of the infrastructure is within a forest, the project will not interfere with the factors that inform the quality of the forest resources.
Pest Management OP 4.09	No	The project does not involve the use of pesticides or have any impact on pest management practices.



Physical Cultural Resources OP/BP 4.11	No	The project will not entail large excavations and is not located in an area of known significance from this policy's perspective. However chance finds procedure is included in the ESIA/ESMP in case any cultural value is found.
Indigenous Peoples OP/BP 4.10	No	There are no indigenous people in the project area.
Involuntary Resettlement OP/BP 4.12	No	OP 4.12 is not triggered for the project. Component 3.1. regarding the rehabilitation and expansion of the Contador power plant does not trigger the policy because the works will be on land owned by the utility where there are no squatters and therefore will not lead to physical or economic displacement. Additionally, the works will be designed in such a way that any works that lead to economic and physical displacement are not eligible. This will be particularly true when choosing the site for potential additional water storage with the construction of water tanks. Given the likely scale of works and accessibility from the capital, construction of specific workers' camp sites is not anticipated either. The Client has confirmed that the lands covered by the footprint of the project were the property of EMAE and therefore no land acquisition is required. The inspection survey along the 8km canal indicated that critical structures of the scheme are accessible by roads already cut (paved up to the powerhouse and then earth roads to the different intakes). It is expected that the works will not create new access points but will mainly comprise reinforcement and stabilization of existing roads to carry materials and equipment. No houses were encountered in the direct vicinity of the project footprint during the site visit and there is no evidence of squatters.
Safety of Dams OP/BP 4.37	No	The Project activities are not related nor dependent on dams, therefore OP 4.37 is not triggered for the project.
Projects on International Waterways OP/BP 7.50	No	This project will not take place on any international waterways, and will not support activities that will impact international waterways.
Projects in Disputed Areas OP/BP 7.60	No	This project will not take place in any disputed areas as defined under OP 7.60, and will not support any activities that will impact disputed areas.



## KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

### A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The project triggers two safeguards policies: OP 4.01 on Environmental Assessment, and OP 4.04 on Natural Habitats. The potential negative impacts likely to be caused by the project are site-specific, minor/limited and thus easily manageable and the proposed environmental and social category is B. The additional financing proposes to cover cost overrun for the rehabilitation works of Contador hydropower project and a demand side management component, corresponding to the purchase of about 150,000 LED lamps to replace an equivalent number of Incandescent lamps in the households of Sao Tome and Principe. As for the incandescent bulbs, bidding documents for suppliers shall include measures of safe disposal of waste. Moreover, the procurement package shall include crusher devices to ensure proper and safe disposal of the incandescent bulbs. In addition, a waste management plan will be prepared during implementation and before the specific investment included in Component 3.4 is carried out. This plan will focus on the management (including recycling) and final disposal of the replaced incandescent lamps.

Therefore, there is no new infrastructure investments foreseen in the proposed additional financing and the scope of the works remain the same. The anticipated impacts from demand management will be localized and able to be mitigated through good design and operation, and no anticipated impacts will be irreversible.

During the field visit to the Zico and Angolar intakes and to the channel towards them, the technical staff of the National Park of Ôbo (NPO) confirmed that no protected species of fauna, flora and habitats are expected to be found near or surrounding the project infrastructures inside NPO. One or two endemic species were found but these were common ones, as those areas are not significant from the nature conservation point of view, representing common habitats along the island.

The project is located in a forest considered secondary, inside the National Park Ôbo. The Angolar intake (which is inside the forest and subject to a visited waterfall), is an exception as there will be a reformulation of its design in order to better cope with the debris that gets into this very small intake system. Nevertheless, potential negative environmental impacts shall mainly result from construction activities and are not expected to have significant adverse or irreversible impacts

With regards to the project's social impacts, physical or economic displacement are not anticipated as the rehabilitation and expansion works are likely to take place in existing location owned by the utility and there are no people living or working in the area and no evidence of squatters or assets. Total of about 400 workers are expected to be required for the rehabilitation and expansion works. The majority of the labor force (approximately 90-95 percent) will be recruited locally from within the beneficiary communities for unskilled labor tasks. Skilled workers will thus comprise around 5-10 percent of the total labor force and will be hosted at the base camps. Although labor influx related to rehabilitation and construction works will be limited, it might still lead to social risks, including basic services availability, gender-based violence (GBV), transactional sex, and sexual-transmitted infections (STIs). Potential project's social risks might be linked as well to energy clients and consumers' behavior change related to illegal connections, meter tampering and bill payment. The parent project includes an ad hoc technical assistance and specific measures designed to change consumer behavior on energy use in order to increase bills collection and combat illegal connections. Inadequate implementation or communication around these activities could result in negative social impacts and/or consumer backlash.



Cumulative impacts is an aspect that seems irrelevant on the environmental and social analysis as the dominant investment of this project is the rehabilitation of an existing hydropower plant and other existing infrastructures.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: Given that the nature of the project activities is mostly rehabilitation, indirect or long term impacts are not anticipated.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts. The majority of the project interventions have limited environmental and social impacts as they focus on the rehabilitation of an existing power plant on governmental land. The Angolar intake (which is subject to a visited waterfall), is an exception as there will be a reformulation of its design in order to better cope with the debris that gets into this very small intake system.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

To address any adverse social and environmental impacts, the Client prepared and consulted upon an Environmental and Social Impact Assessment (ESIA) for the proposed alternative and an Environmental and Social Management Plan (ESMP) to propose had hoc measures to avoid and/or mitigate any adverse identified impacts. The ESIA and the ESMP were disclosed in country on February 4, 2020 and at the World Bank InfoShop on February 6, 2020. The ESMP will be duly incorporated in the bidding documents for the rehabilitation works. Contractors are also required to develop ad hoc ESMPs before works start to ensure, among others, that relevant measures are planned, implemented and supervised to facilitate pacific cohabitation between and provision of services to hosting communities and workers. Specific measures will be put in place to prevent any potential risks to communities related to GBV, child labor, and increased HIV/AIDS incidence. Contractors and supervising engineers' contracts will incorporate standard World Bank Environmental, Social, Health, and Safety (ESHS) clauses requiring the contractors to apply the workers' code of conduct on GBV and child protection and labor influx guidelines. It is to be noted that during construction, supervision of ESMP implementation and Health and Safety requirements on site will be carried out by the Owner's Engineer who has been in charge of the detailed studies and produced the bidding documents for the rehabilitation works. The project will benefit from the fact that the PIU, named AFAP, is under the Ministry of Finance and Public Administration (MFPA) and has long experience in implementing WB financed-projects on DRM, transport, education, and telecommunications among others. Since the approval of the parent project, the PIU has built significant capacity in handling safeguards issues as per World Bank policies, including preparation and implementation of other the ESIA and ESMP. There is a full-time Environmental and Social Specialist (E&S) within AFAP who is responsible of leading and supervising the design and implementation of the project's safeguards measures and of ensuring the coordination between the project beneficiary and other relevant government institutions. A project's grievance redress mechanism (GRM) has been design and is currently operational to facilitate an accessible and effective communication channel between PAP and PIU and allow potential complaints to be filed and addressed. The GRM will integrate specific procedures for potential GBV cases, including confidential reporting with safe and ethical documenting of GBV cases as well as a referral pathway to appropriate support services for GBV survivors.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The project's AF safeguard instruments (ESIA, ESMP) have been prepared through a consultative process and have been consulted upon and publicly disclosed both in-country and on the World Bank's website respectively on



February 4, 2020 and February 6, 2020. During the instruments preparation, three main public consultations have been held to inform and consult project’s main stakeholders upon the project’s design and measures to address its risks. Each consultation included an in depth discussion during which participants had the opportunity to express their doubts, expectations and opinions regarding the project, its potential impacts and mitigation measures to be adopted. Participants views and suggestions have been later integrated in the final draft of the instruments. The identified project’s key stakeholders include: Government: Empresa de Água e Electricidade (EMAE); Direcção de Águas e Direcção de Electricidade; Direcção Geral de Ambiente (DGA); Direcção Jurídica, Administração, Cooperação, Avaliação e os Estudos de Impacto Ambiental (DJACAEIA); Direcção de Conservação, Saneamento e Qualidade do Ambiente (DCSQA); Direcção Geral de Recursos Naturais e Energia (DGRNE); Direcção de Geologia e Minas; Direcção de Recursos Hídricos; Direcção das Florestas (DF); Parque Nacional Obô São Tomé (PNOST); Direcção Geral de Turismo e Hotelaria; Direcção de Apoio ao Desenvolvimento da Agricultura (DADA); Direcção de Reordenamento Agrário e Hidráulica Agrícola (DRAHA); Gabinete da Reforma Agrária; Direcção Geral da Cultura (DGC); Direcção dos Cuidados de Saúde; Centro de Saúde de Neves; Centro Nacional de Endemias; Câmara Distrital de Lembá. Private Sector: Cooperativa de Produção e Exportação de Cacau Biológico (CECAB); SATOCAO; IMOBRIISA; ADM; CONSTRUPEC. Civil society: ALISEI; Associação de Cabo-Verdianos Acção Social (ACAS); Associação dos Pequenos Produtores de Cacau da Generosa (APPCG); Federação de Organizações Não Governamentais em São Tomé e Príncipe (FONG-STP); TESE; Irmãs Franciscanas Hospitalieras da Imaculada Conceição; Comunidade de Ponta Figo; Comunidade de Generosa; Comunidade de Manuel Morais; Comunidade de Ribana; Roça do Rio Leça; Roça Monte Forte. International organizations: FAO, BirdLife International.

**B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)**

Environmental Assessment/Audit/Management Plan/Other		
Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
25-Nov-2019	06-Feb-2019	

**"In country" Disclosure**  
 Sao Tome and Principe  
 04-Feb-2020

Comments

**If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.**

If in-country disclosure of any of the above documents is not expected, please explain why:



**C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)**

**OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

**OP/BP 4.04 - Natural Habitats**

Would the project result in any significant conversion or degradation of critical natural habitats?

Yes

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

Yes

**The World Bank Policy on Disclosure of Information**

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes



### All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

### CONTACT POINT

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#### Borrower/Client/Recipient

Ministry of Finance and Public Administration

#### Implementing Agencies

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**FOR MORE INFORMATION CONTACT**

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**APPROVAL**

Task Team Leader(s):	Nicolas Jean Marie Sans Nash Fiifi Eyison
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**Approved By**

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Practice Manager/Manager:	Ashish Khanna	20-Feb-2020
Country Director:	Abdoulaye Seck	21-Feb-2020