PUBLIC
SIMULTANEOUS DISCLOSURE

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

SURINAME

CONSOLIDATING A SUSTAINABLE ENERGY SECTOR

(SU-L1055)

LOAN PROPOSAL

This document was prepared by the project team consisting of: Javier Cuervo (INE/ENE) Team Leader; Gerard Alleng (CSD/CCS) and Natacha Marzolf (INE/ENE) Alternate Team Leaders; Alberto Levy, Virginia Snyder, Odile Johnson, Stephanie Suber and Fidel Márquez (INE/ENE); Jordi Abadal (ENE/CSU); Raijan Gangadin (CCB/CSU); Adriana Valencia (DSP/DCO); Vikash Bhagirath and Mariska Tjon (FMP/CSU); Mónica Centeno (LEG/SGO); Lenin Balza (INE/INE) and Alberto Villalba (VPS/ESG).

CONTENTS

ANNEXES	
Annex I	Summary Development Effectiveness Matrix (DEM)
Annex II	Results Framework
Annex III	Fiduciary Arrangements

REQUIRED ELECTRONIC LINKS (REL)	
REL#1	Pluriannual Execution Plan (PEP) / Annual Operational Plan (AOP)
REL#2	Monitoring and Evaluation Arrangements
REL#3	Environmental and Social Management Report (ESMR)
REL#4	Procurement Plan

OPTIONAL ELECTRONIC LINKS (OEL)	
OEL#1	DMS: Justification and Objectives
OEL#2	DMS: Hardware Infrastructure Requirements
OEL#3	DMS: Interface Requirements
OEL#4	DMS: Technical Specifications
OEL#5	Upgrade of Commewijne Transmission Grid Pre-feasibility Study
OEL#6	Study of Alternatives for Commewijne Project
OEL#7	Koina Kondre Area Project Pre-feasibility Study
OEL#8	Solar Photovoltaic Plant in Brownsweg: Technical and Cost Benefit Analysis
OEL#9	EU-CIF Technical Study
OEL#10	EU-CIF ESIA
OEL#11	ESP: Expansion Plan
OEL#12	A Gender Perspective
OEL#13	Powakka-Zanderij Transmission Line Pre-feasibility Study
OEL#14	PUP Analysis
OEL#15	Project Operation Manual for MNH
OEL#16	Project Operation Manual for EBS
OEL#17	Safeguard Policy Filter (SPF) and Safeguard Screening Form (SSF)

ABBREVIATIONS	
CRF	Corporate Results Framework
DEV	*Dienst Electrificatie Voorziening*
DMS	Distribution Management System
EA	Executing Agency
EAS	Energy Authority of Suriname
EBS	N.V. *Energie Bedrijven* Suriname
EE	Energy Efficiency
EPAR	*Energievoorziening* Paramaribo
ERP	Enterprise Resource Planning
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
GDP	Gross Domestic Product
GHG	Green House Gases
GoS	Government of Suriname
HFO	Heavy Fuel Oil
ICAS	Institutional Capacity Assessment
IDB	Inter-American Development Bank
km	kilometer
kWh	Kilowatt hour
kWp	kilowatt peak
LAC	Latin American and the Caribbean
LNG	Liquified Natural Gas
M&E	Monitoring and Evaluation
MDB	Multilateral Development Banks
MNH	Ministry of Natural Resources
MoF	Ministry of Finance
MW	Megawatts
NERC	Northamerican Electric Reliability Corporation
NG	Natural Gas
NPS	National Power System
OC	Ordinary Capital
OMS	Outage Management System
PEU	Project Executing Unit
PM	Project Manager
POM	Project Operations Manual
PUP	Public Utilities Policy
PV	Photovoltaic
PWD	People with Disabilities

ABBREVIATIONS	
RE	Renewable Energy
RM	Results Matrix
ROC	Right Bank of the Commewijne
SAIDI	System Average Interruption Duration Index
SCADA	Supervisory Control and Data Acquisition
TL	Transmission Lines

PROJECT SUMMARY
SURINAME
CONSOLIDATING A SUSTAINABLE ENERGY SECTOR
(SU-L1055)

Financial Terms and Conditions				
Borrower			**Flexible Financing Facility**[a]	
Republic of Suriname			**Amortization Period:**	25 Years
Executing Agency (EA)			**Disbursement Period:**	5 years
N.V. *Energie Bedrijven* Suriname (EBS) and Ministry of Natural Resources (MNH)			**Grace Period:**	5.5 Years [b]
Source	**Amount (US$)**	**%**	**Interest rate:**	LIBOR Based
IDB (Ordinary Capital) [d]:	30,000,000	100	**Credit Fee:**	[c]
			Inspection and supervision fee:	[c]
			Weighted Average Life (WAL):	15.25 years
Total:	30,000,000	100	**Currency of Approval:**	Dollars of the United States of America

Project at a Glance

Project Objective/Description: The general objective is to improve rural economic development, by ensuring adequate and modern access to sustainable electricity to enhance the living conditions of the rural population while improving the rural business environment with better provision of electricity as a public service. The specific objectives are to: (i) advance the implementation of energy reform through support to the Energy Authority of Suriname (EAS) and operational management of the EBS; (ii) increase the reliability of the power system and promote the diversification of the energy matrix through financing pre-investment activities related to Renewable Energy (RE) and Natural Gas (NG); and (iii) expand electricity coverage through a combination of grid extension and off-grid- systems, increasing the provision of RE systems.

Special Conditions to the First Disbursement.

Special Conditions to the first disbursement of Subcomponent 1.1: (i) approval by the Ministry of Natural Resources (MNH) and entry into effect of the Project Operations Manual (POM) in connection to Subcomponent 1.1, in the terms previously agreed with the Bank; and (ii) establishment of the Project Execution Unit (PEU) and the selection of its key personnel, in accordance with the terms previously agreed with the Bank. The key personnel are the: (a) project manager; (b) procurement specialist; and (c) financial specialist (¶3.6).

Special Conditions to the First Disbursement of Subcomponents 1.2, 1.3 and Components 2 and 3: (i) approval by EBS and entry into effect of the Project Operations Manual (POM) in connection to Subcomponents 1.2, 1.3 and to Components 2 and 3, in the terms previously agreed with the Bank; (ii) approval and entry into effect of a subsidiary agreement entered into between the Ministry of Finance and EBS for purposes of the use of loan resources and the implementation of the Project; and (iii) establishment of the Project Execution Unit (PEU) and the selection of its key personnel, in accordance with the terms previously agreed with the Bank. The key personnel are the: (a) project manager; (b) environmental and social specialist; (c) procurement specialist; and (d) financial specialist (¶3.3).

Special Condition to the first Disbursement of Subcomponent 2.1: (i) submission of evidence to the satisfaction of Bank, that demonstrates that Suriname holds the legal ownership and/or adequate rights-of-way of the land where the transmission line described in Subcomponent 2.1 will be placed (¶3.3); and (ii) see Annex B of the ESMR.

Special Conditions for execution: see (i) Annex B of the ESMR.

Exceptions to Bank Policies: None.

Strategic Alignment						
Challenges[e]:	SI	☑	PI	☑	EI	☐
Cross-Cutting Themes[f]:	GD	☑	CC	☑	IC	☑

[a] Under the Flexible Financing Facility (FFF) (Document FN-655-1), the borrower has the option to request modifications to the amortization schedule, as well as currency, interest rate and commodity conversions. In considering such requests, the Bank will take into account operational and risk management considerations.

[b] Under the flexible repayment options of the FFF, changes in the grace period are possible as long the Original Weighted Average Life (WAL) and the last payment date, as documented in the loan agreement, are not exceeded.

[c] The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors during its review of the Bank's lending charges, in accordance with the relevant policies.

[d] Disbursement Restrictions. Pursuant to AB-2990, the disbursement of Bank resources (OC) will be subject to the following maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months. All these periods will be counted from the time the loan operation is approved by the Board of Executive Directors (¶2.3).

[e] SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

[f] GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. PROJECT DESCRIPTION AND RESULTS MONITORING

A. Background, Problem Addressed, and Justification

1.1 **Background.** Suriname is a small middle-income country of 163,820 square kilometers, with an estimated population of 551,000 concentrated in the coastal areas, and a sparsely populated interior that extends to the Amazon Rainforest (locally known as Hinterland). Indigenous and Maroon[1] people are predominant in the Hinterland, where over 200 villages can only be reached by boat or plane.

1.2 Suriname's economy is heavily dependent on the oil and mining sectors (crude oil and gold), which accounted for approximately 7% of the Gross Domestic Product (GDP), representing 88% of merchandise exports and 24% of fiscal revenues in 2017.[2] The country reached one of the highest growth rates in the Caribbean during the 2001-2014 period when real GDP growth averaged 4.4%, due mainly to favorable commodity prices.[3] However, a reversal of commodity fortunes in 2015 pushed the economy into a recession with real GDP contracting by an average of 3.9% annually for 2015-2016, accompanied by relatively large fiscal and external imbalances and rising debt levels.[4] The authorities made some macroeconomic adjustments in late 2015 which produced some results. Economic recovery began in 2017, and is expected to continue through 2020, with an estimated GDP growth of 2.7%.[5]

1.3 **Sector overview.** The National Power System (NPS) consists of seven isolated power networks served by N.V. *Energie Bedrijven* Suriname (EBS) based on hydro and thermal generation. N.V. *Energievoorziening* Paramaribo (EPAR) is the largest network, serving around 143,485 customers in the urban Paramaribo area, the semi-urban district of Wanica and the surroundings rural districts of Saramacca, Commewijne and Para, with peak demand of around 203 Megawatts (MW). EPAR has mainly depended on power supply from the 189 MW Afobaka hydropower plant[6] but with increased electricity demand in recent decades,[7] EBS entered into purchase agreements with *Staatsolie*, the state oil company,[8] and has

---

1 Maroon community refers to a group of formerly enslaved Africans and their descendants, who gained their freedom by fleeing chattel enslavement and settled in remote mountains or dense overgrown tropical terrains near the plantations. Many are found in the Caribbean, including Suriname. Source: Encyclopedia Britannica. Maroon Community (London, 2019).

2 Central Bank of Suriname and the Ministry of Finance, Suriname.

3 Central Bank of Suriname.

4 Data from the Central Bank of Suriname.

5 Economic Intelligence Unit. July 2019 forecast.

6 Constructed in the 1960's by *Suralco* under the *Brokopondo* Agreement (1957) with the Government of Suriname (GoS), as a source of energy that made viable the development of a smelting facility and an alumina refinery near bauxite sources. The agreement established that were *Suralco* ever to close the refinery, the hydropower plan would be transferred to the state. In late 2015, *Suralco* closed the refinery and the terms of transfer are currently being negotiated.

7 From 2012 to 2015 energy demand increased by 3.4%, in line with economic growth, but from 2015 to 2017 decreased by 5.6% when Suriname faced a recession. Demand is expected to grow again with the country's economic recovery.

8 *Staatsolie* recently increased its installed capacity to approximately 96 MW of HFO power plants in *Tuit Lui Faut* refinery, to support crude oil processing operations and sell electricity through Power Purchase Agreements with the GoS.

also needed to generate electricity from Heavy Fuel Oil (HFO) and diesel in two power plants totaling 169.6 MW of installed capacity.

1.4 Outside EPAR, EBS operates six additional power systems that use HFO and diesel. The largest is in Nickerie (also referred as ENIC), which serves around 10,489 customers with electricity supplied by a 20.6 MW thermal power plant at Clarapolder running on HFO and premium diesel. The remaining five rural power networks served by EBS are Albina, Apoera, Coronie, Moengo and Wagenigen, with an approximate installed capacity of 23 MW of diesel power plants, serving roughly 5,857 customers in the coastal zone.

1.5 The national electricity access rate is 90.34%[9] with great disparities and significant differences in terms of access for the urban (99%) and rural (90%) populations.[10]

1.6 In isolated and remote communities of the Hinterland, where the NPS does not reach customers, about 130 villages are being intermittently served with small diesel generators by the *Dienst Electrificatie Voorziening* (DEV) or Department of Rural Energy, part of the Ministry of Natural Resources (MNH); in turn responsible for rural electrification in the sparsely inhabited interior. The electricity service provision is designed for an average time of six hours per day, from 5:00 pm to 11:00 pm, but this is seldom the case due to irregular provision of diesel or, very often, because the units are out of commission. Additionally, electricity for these remote communities, when available, averages an estimated generation cost of US$0.63/Kilowatt hour (kWh) but can reach US$1.00/kWh, which is high compared to the main grid.[11] According to 2016 and 2017 data, Suriname had the lowest commercial and residential electricity prices in Latin America and the Caribbean (LAC) after Venezuela, Bolivia and Trinidad and Tobago (US$0.05/kWh against a US$0.16/kWh regional average).

1.7 The results of unreliable electricity, or lack thereof, on rural productivity have been widely documented with impacts on income, employment, school enrollment and firm productivity.[12]

1.8 **Bank's Experience and Lessons Learned.** The design of the project builds upon lessons learned from several IDB operations. For example, regarding institutional framework, loans 2570/OC-ES in El Salvador and 3386/BL-HO in Honduras have demonstrated the importance of strengthening independent regulatory agencies; to have electricity access loans 3165/OC-PN in Panama and 3610/OC-CO in Colombia have proved the efficiency of electrifying isolated rural communities with solar PV minigrids; and loans 2460/BL-BO in Bolivia and 2033/OC-GU in Guatemala have confirmed the need to invest in critical transmission and distribution networks to provide a more reliable service. All these activities are included in the design of the project.

---

9 OLADE. Energy Outlook of Latin America and the Caribbean 2018 (Quito, 2019).

10 World Bank Data Indicators.

11 Average electricity cost in the National Power Systems (main grid) in 2017 was US$0.11/kWh. Source: Castalia Consulting. Electricity Sector Plan 2019-2023. (2018). It is also high compared to other regions in LAC, for example, the average price in Central America is US$0.18/kWh. Source: CEPAL. Estadísticas del Subsector Eléctrico de los Países del Sistema de la Integración Centroamericana (Ciudad de México, 2017).

12 Jimenez, Raul (2017) "Development effects of Rural Electrification". IDB Policy Brief No. IDB-PB-261.

1.9 **Donor Coordination.** The project is aligned with other multilateral and bilateral agencies. The French Agency for Development is financing a project to connect the eastern part of Suriname to the EPAR grid. Exim Bank of India approved a credit line to bring electricity to the Hinterland using PV solar minigrids and the Caribbean Development Bank is financing improvements to the power system in the Nickerie District and EE investments.

1.10 Non-conventional Renewable Energy (RE) is being slowly introduced in Suriname. Efforts to increase access in isolated areas include a 500 kW off-grid solar plant inaugurated by EBS in February 2018, with diesel backup, to provide electricity to the rural communities of Pokigron and Atjoni 24/7, a project financed by the Bank through operation "Support to Improve Sustainability of the Electricity Service" 3059/OC-SU. EBS is also currently executing two additional solar projects, a 2 MW plant in ENIC and a 300 kW plant in Coronie. MNH is working on a 150 kW off grid solar plant in Godolo, a rural isolated community (project financed by operation "Development of Renewable Energy, Energy Efficiency and Electrification" GRT/FM-13774-SU). These projects are contributing to improve the know-how in Suriname for implementing RE in off-grid projects to improve the quality service of electricity in rural communities. The most significant participation by the private sector is a 5 MW solar plant that was commissioned in 2014 to supply power to the IAMGold Rosebel gold mine. The country is also interested in the introduction of Natural Gas (NG) to further diversify the energy matrix while displacing liquid fossil fuel-based generation. This would reduce the overall price of energy, alleviate its price volatility and lower GHG emissions.[13]

1.11 **Institutional framework.** MNH is the lead government agency responsible for energy policy and supervision of the sector. The sector is governed by the Electricity Act and the Energy Authority Act, enacted in 2016 to reform and improve the electricity sector with three objectives: (i) improve the availability of electricity; (ii) ensure affordability of supply; and (iii) increase the environmental quality of electricity generation. The reform has four key elements: (i) implementation of the Energy Authority of Suriname (EAS) as an independent authority responsible for supervising the sector; (ii) development of the Electricity Sector Plan (ESP),[14] including a 20-year expansion plan and regulatory plans; (iii) implementation of cost-reflective and affordable tariffs to reduce subsidies for the sector; and (iv) unbundling of the electrical utility in separate business units for generation, transmission and distribution.

1.12 As head of the sector, MNH sets the policies, and the EAS is the regulatory agency in charge of establishing the regulations needed to implement the policies. MNH provides policy guidance to EBS, the state-owned utility. EBS operates under a 50-year countrywide concession since 1973, covering transmission, distribution and commercialization of electricity.

1.13 **Challenges.** Suriname's power infrastructure affects service reliability and hinders private sector development due to programmed interruptions of electricity service with the implementation of rolling blackouts or load-shedding programs to prevent

[13] The Optimal Expansion Plan study includes the introduction of LNG in the power sector based on the benefits it represents. In 2015, the IDB financed an Action Plan to Import LNG to Suriname with promising results.

[14] The elaboration of the ESP was financed by the Bank (ATN/OC-14820-SU; ATN/OC-16663-SU). Both TCs are closed with all deliverables completed to the satisfaction of the GoS.

system-wide failure. While power generation capacity has grown because of public and private investments trying to address short-term supply shortages, the expansion and upgrade in transmission and distribution infrastructure has been limited affecting service quality and the overall competitiveness of the country. This is evidenced by the high rate of System Average Interruption Duration Index (SAIDI) in the EPAR,[15] the nation's largest grid in terms of consumption and peak demand. The duration of power interruption affects more significantly the rural districts of Para, Commewijne and Saramacca, which are supplied by older infrastructure that lacks redundancy to cover power failures. With the support of the Bank, EBS is addressing the shortcomings of infrastructure, but there is a need for continued investment to improve the quality of the system while serving a growing demand, expected to be in line with an average 2.5% economic growth in 2019-2020. The impact of unreliable service or the lack of it in agricultural productivity has been documented.

1.14 In rural areas and the country's interior, significant geographic distances, remote locations, low population density and limited infrastructure constitute appreciable obstacles. Electricity is scarce and, when available, very expensive compared to the provision by the national grid. The lack of a reliable provision hampers rural productivity as the efficient irrigation of crops, as well as post-harvest activities (food processing and storage), are highly dependent on electricity service. Limited community experience in the operation of diesel generators, and especially in RE technologies, represent a challenge for successful long-term deployment of electricity service in these areas.[16]

1.15 Regarding the institutional framework, the main challenge is the implementation of the electricity law, especially regarding the creation of the EAS, which does not have the capabilities to fulfill established mandates. Technical capacity is needed in the formulation of the ESP, as well as the development of secondary regulations to determine transparent dispatch rules, procedures to tender new generation plants, tariff and subsidy methodology-setting, service quality requirements, and sector planning.

1.16 **Gender Equality.** Gender balance is another cross-cutting challenge for Suriname. As in many countries, women's access to higher decision-making levels remains a challenge in most, if not all, government and private sectors. Additionally, women living in rural areas encounter challenges such as lower educations levels with limited employment opportunities in their communities, adding to their responsibilities for the establishment of their homes and care of their family and children. While only a 2.1% share of total employment in Suriname is in agriculture, 62.1% of employed women are laboring in agricultural activities and 37.9% in industry, services and other nonagricultural activities (UNDP, 2018), thus confirming that women are the ones responsible for agriculture activities in the country. Therefore, access to reliable and accessible electrical energy in rural communities offers new opportunities for the development of productive activities especially for women in their communities. The Inter-American Development Bank

[15] SAIDI is the average outage duration for a customer and a measure for quality of service. A greater SAIDI means worse service. As of 2013, SAIDI was 14.4 hours in comparison to a LAC average of less than 12 hours.

[16] The lack of technical expertise impedes adequate maintenance of the electric installations leading to decay and non-functioning equipment.

(IDB) conducted an analysis of specific issues affecting women on the areas of intervention and influence of this operation and a series of activities and recommendations are being proposed (OEL#12).

1.17 **Strategic Alignment.** The project will contribute to the overarching strategic objectives of the IDB Group Country Strategy (CS) with the Republic of Suriname 2016-2020 (GN-2873) in the area of private sector development and the strategic objective of increasing agriculture productivity (¶3.23 of the CS). The support to infrastructure that transports electricity is in line with the need to execute public investments that have growth-enhancing effects (¶3.23 and ¶3.24 of the CS). The institutional support for EBS is aligned with the need to improve the management of state-owned enterprises (¶3.14 of the CS). Finally, the provision of electricity to rural (remote) areas supports a more favorable business environment and the enhancement of the agricultural sector through 24/7 access to electricity (¶3.22 and ¶3.33 of the CS), and by offering the opportunity to implement modern and efficient irrigation systems, as well as systems for processing and food storage that add value to crop yields. It is worth highlighting the contribution of this operation to the cross-cutting themes of gender and cultural equality, since the provision of electricity to indigenous and Maroon communities, that are beneficiaries of rural electrification, improves access to critical infrastructure services that improve the lives of these communities (¶3.45 of the CS). The operation is included in the Annex III Update of the 2019 Operational Program Report (GN-2948-2).

1.18 The project is in alignment with the IDB's Update to the Institutional Strategy 2010-2020; partnering with Latin America and the Caribbean to Improve Lives (AB-3008) and the Corporate Results Framework (CRF) of the Update of the Institutional Strategy (GN-2727-6) as it contributes to the strategic policy challenges of: (i) Social Inclusion and Equality, by the promotion of productive uses of electricity that in rural areas helps reduce poverty by increasing productive activities and provides inclusive electricity infrastructure; and (ii) Productivity and Innovation, by the investment in new software, and technologies such as solar technologies. The project is aligned with the cross-cutting themes of: (i) Gender Equality and Diversity, by empowering women in the energy sector and in productive activities fostering entrepreneurship; (ii) Climate Change (CC) and Environmental Sustainability, as the investments include the reduction of carbon dioxide emissions; and (iii) Institutional Capacity and Rule of Law, with the strengthening of the EAS and EBS. The CRF indicators impacted by the project are "Households with new or improved access to electricity supply" and "Electricity transmission and distribution lines installed or upgraded." The project is consistent with the four pillars of the Energy Sector Framework Document (GN-2830-8): (i) energy access, as it will increase the population receiving 24/7 electricity; (ii) energy sustainability, as it will promote the development of Renewable Energies (RE); (iii) energy security, as it will upgrade critical infrastructure; and (iv) energy governance, as it will support the operational implementation of the EBS.

1.19 **Gender.** The introduction of solar energy presents a great opportunity to implement women's economic empowerment programs in some of the communities, contributing mainly to the development of productive uses of electricity and community engagement. During the execution of the operation,

business training on productive uses of energy with emphasis on production techniques, business organization, administrative skills, creation of business plans, networking, and access to new markets components will be offered. This type of training in similar projects in other parts of the world significantly increased self-employed men and women's real income, with a higher impact for women.[17,18]

1.20 **People With Disabilities (PWD).** A total of 70 million PWD live in LAC,[19] most of whom face exclusion from the educational system, labor market, among others. Exclusion creates a significant economic burden for individuals and their families and can also carry substantial costs to societies at large, limiting national economic growth.[20] In Suriname, the national census indicated in 2012 that 12.5% of the population lives with disability. In 2017, the country ratified the Convention on the Rights of Persons with Disabilities, assuming as a national commitment to make changes towards guaranteeing respect and fulfillment of the rights of PWD. Nonetheless, in the energy sector, the inclusion of PWD is at the initial stage. There is no comprehensive information about the current situation of PWD, nor a culture of hiring them or offering an inclusive customer service that allows clients with disability to easily access the service offered by the utility. There are utilities in the region that have undertaken out outstanding and replicable reforms to ensure their employees and customers a decent, respectful environment and equality of rights. Such is the case *Empresas Públicas de Medellín* from Colombia that carried out a diagnosis of barriers to the inclusion of PWD and made the institutional adjustments to allow the entry of new public servants with disabilities, leading to the entry of 20 PWD in June 2019. Another example is Enel-Condensa in Colombia, that developed an Inclusive Service Guide that comprises policies and procedures to offer a customer service accessible to all. The guide includes the implementation of energy service bills in Braille, the construction of access ramps, customer service stations to serve people in wheelchairs, working modules to attend low-size or reduced mobility customers and bathrooms for people with limitations, etc.[21] This operation builds on the successful experience of international good practices, by carrying out a diagnosis, defining an institutional strategy and developing an action plan (actions to be defined according to needs identified and strategies proposed).

1.21 **Innovation.** The project incorporates a high degree of innovation and digitalization for Suriname, giving continuity to the ongoing implementation of a Supervisory Control and Data Acquisition (SCADA) system, an Enterprise Resource Planning (ERP),[22] and an Outage Management System (OMS) under execution with operations 3059/OC-SU and 3403/OC-SU. In particular, the operation will finance the implementation of a Distribution Management System (DMS). Additionally, considering the utility system will become more interconnected and complex due

---

17 FAO. Rural Women's Entrepreneurship is Good Business (Rome, 2010).

18 The training course will be financed with the Program to Promote Gender Inclusion in the Energy Sector executed under ATN/OC-16266-RG and ATN/OC-16267-RG.

19 ECLAC. Regional Report on Measuring Disability (Santiago, 2014).

20 Morgon, Lena; Polack, Sarah. The Economic Costs of Exclusion and Gains of Inclusion of People with Disabilities.

21 Enel. Building a Comprehensive Model Focused on Inclusion (2017).

22 ERP is a business process management software that allows an organization to use a system of integrated applications to manage the business and automate many back-office functions related to technology, services and human resources.

to the use of more digital technologies, metering and resource management systems, cybersecurity measures will be implemented to protect critical infrastructure. The DMS system will be the first of its kind in the country along with the digital integration of the Information Technology systems. Also, the project includes the first two solar mini grids connected to the main grid to be installed in Suriname. This would a be a new technology for Suriname and EBS and could open the market for more distributed generation.

1.22 **Digitalization and Cybersecurity.** EBS has embarked in a digitalization of the operations that began with the implementation of the SCADA system, the ERP and the OMS. This project provides continuing support with the financing of the DMS, capacity building and training to EBS technical personal in the management of digital systems. In addition, the DMS has specific provisions regarding cybersecurity based on the critical infrastructure standards of Northamerican Electric Reliability Corporation (NERC).[23]

1.23 **Sustainable Infrastructure.** The project is consistent with the Sustainable Infrastructure for Competitiveness and Inclusive Growth Strategy (GN-2710-5). It is aligned with its second strategic principle since it helps Suriname to adopt a new vision to plan, build and maintain infrastructure to support the delivery of quality services that promote sustainable and inclusive growth. The project includes measures in accordance with the four pillars of the General Framework of Sustainable Infrastructure:[24] (i) economic and financial sustainability, by generating positive net economic return on investments; (ii) environmental sustainability, by implementing measures to reduce Green House Gases (GHG) emissions; (iii) social sustainability, by increasing access to reliable electricity supply in rural villages; and (iv) institutional sustainability by strengthening the EAS and EBS.

1.24 **Climate Change Financing.** The project is consistent with the Bank's Climate Change Sector Framework Document (GN-2835-8). According to the joint Multilateral Development Banks (MDB) approach on climate finance tracking, 27.64% of total IDB funding for this operation result in CC mitigation activities. This contributes to the IDBG's climate finance goal of 30% of combined IDB and IIC operational approvals by year's end 2020.

1.25 **Consistency with the Public Utilities Policy (PUP).** The project meets IDB's PUP (GN-2716-6) policy conditions: (i) economic evaluation by proving the investments are economically viable in accordance with the cost-benefit analysis (CBA) methodology used and accepted by the Bank or constitute a least-cost solution when a CBA was not performed; and (ii) financial sustainability since EBS, as part of its regular operations, receives enough funds to cover operating and maintenance costs of the systems and infrastructure related to the project. In addition, the selection, execution, operation, and maintenance of the project's activities comply with the scope of environmental and social sustainability of the PUP with the PV generation technology that meets a dual role of increasing the

[23] NERC is a non-profit international regulatory authority whose mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. NERC develops and enforces Reliability Standards of international acceptance.

[24] Technical note No. IDB-TN-1388. A Framework to Guide Sustainability Across the Project Cycle.

supply of services and contributes to environmental sustainability through the development of a lower emissions offering. The project is aligned with the PUP's policy objectives related to: (i) expanding the capacity to provide greater access by the entire population including disadvantaged communities and groups; (ii) improving quality and reliability of the existing service with reinforcements in the transmission systems and distribution grids; and (iii) creating incentives for service demand and efficient delivery of service efficiently with the solar technologies in remote areas where distributed generation is more affordable than the current solution of extending Transmission Lines (TL) at a high cost (OEL#14).

B. Objective, Components, and Cost

1.26 **Objectives.** The GoS requested the Bank's support for a project aimed at consolidating a sustainable energy sector.[25] The general objective is to improve rural economic development, by ensuring adequate and modern access to sustainable electricity to enhance the living conditions for the rural population while improving the rural business environment with better provision of electricity as a public service. The specific objectives are to: (i) advance the implementation of energy reform through support to the EAS and operational management of the EBS; (ii) increase the reliability of the power system and promote the diversification of the energy matrix through financing pre-investment activities related to RE and Natural Gas (NG); and (iii) expand electricity coverage through a combination of grid extension and off-grid systems, increasing the provision of RE systems.

1.27 **Component 1. Institutional Framework (US$12.7 million).** This component will support the implementation of energy reforms with three subcomponents:

1.28 **Subcomponent 1.1. Energy Authority of Suriname (US$2 million).**[26] This subcomponent includes: (i) the design and implementation of a database for key performance indicators in the electricity sector;[27] (ii) consultancy services to improve organizational and operational management; (iii) office equipment and rental space; (iv) training of EAS personnel; and (v) consultancy services for the elaboration of the Electricity Sector Plan 2024-2028.[28]

1.29 **Subcomponent 1.2. DMS and Systems Integration (US$9.7 million).** This subcomponent will finance the implementation of a DMS application to support key operational activities within the customer service department, as well as the transmission and distribution division. The subcomponent will also support the integration of existing systems including the OMS, GIS, SCADA and ERP. The expected benefits of the DMS include: (i) increased efficiency in the management and handling of emergency calls; (ii) increased ability to interact with customers and enhance the customer service experience; (iii) improved accuracy and timely data input for regulatory and internal reporting; (iv) anticipation of events, timely reporting, and timely restoration in case of power outages; and (v) personnel

---

[25] The loans in execution (3059/OC-SU and 3403/OC-SU) are aimed at improving the sustainability of the energy sector. The objective of this loan is to continue advancing the progress of the sector under the same premise.

[26] Subcomponent to be executed by MNH (see section 3.A).

[27] Article 5 of Electricity Act establishes that the EAS is responsible to collect, process, interpret, maintain, manage and publish statistics of the power sector.

[28] Article 8 of Electricity Act establishes that at least once every five years, the government shall establish the ESP prepared by the EAS by State Decree.

trained in the use of the system. These innovations will be driven by the private sector, who would provide the technical expertise.

1.30 **Subcomponent 1.3. Strengthening of EBS (US$1 million).** Following the Electricity Act, EBS has been separated into different business units to serve different segments of the provision of electricity. This subcomponent will support EBS transformation and modernization with technical expertise to enhance its corporate capability and adaptation to the new structure. This subcomponent will also finance training in the fields of digitalization of utilities, innovative and disruptive technologies, transition to RE systems, introduction of Liquified Natural Gas (LNG), energy planning, and regulations. EBS' transformation, and modernization, is a great opportunity to introduce in its agenda the design and implementation of an institutional gender and diversity strategy. The promotion of diversity and gender equality in the institutional and business environment strengthens human capital and improves the quality of management.[29] In this regard, a diagnosis will be carried out to: (i) establish a baseline on the quantity and characteristics of PWD in the sector; and (ii) prepare a gap analysis to inform the potential of incorporating PWD in the sector and to improve the customer service provided by EBS to clients with disabilities. Based on the diagnosis, an institutional strategy and an action plan will be developed to address the main challenges identified, to define institutional objectives and to prepare a roadmap for action. The action plan will provide EBS with a guidance to create the right incentives, policy, procedures and infrastructure to incorporate PWD as part of its workforce and offer an adequate customer service to PWD.

1.31 **Component 2. Critical infrastructure and Energy Diversification (US$7.2 million).** This component has three subcomponents. The first two finance hard investment of critical infrastructure related to the upgrade and expansion of transmission and distribution infrastructure in the EBS network with emphasis on networks that supply rural districts. The third subcomponent finances soft investments towards the diversification of the energy matrix. The subcomponents are:

1.32 **Subcomponent 2.1. Transmission Line (TL) Powakka-Zanderij (US$3 million).** This subcomponent will finance a new 33 kV TL in the Para district, installed along a new road under construction, to connect substations in Powakka and Zanderij (located by the International Airport). The project will improve quality of service in central Para district to reduce outages caused by the length and configuration of current TL. In the event of an outage, the entire line is affected, and service is lost in large areas. The Powakka-Zanderij line provides an alternate path through which electricity can flow in case of an outage.

1.33 **Subcomponent 2.2. Upgrade Distribution Grid Commewijne (US$3.2 million).** To meet the increasing demand of the Commewijne district, while offering a high reliability of supply, this subcomponent will finance distribution infrastructure, including a new 12 kV line to connect Richelieu plantation and Mariënburg, and a 12 kV river crossing cable (1 kilometer-km) in the Commewijne river. The project will improve the quality and security of the supply in several areas of the Commewijne district including the area located on the Right Bank of the

[29] E&Y. Women in Power and Utilities (2016).

Commewijne (ROC) river. The ROC is eminently rural with several plantations along the river, including Rust and Werk, Johana & Margareta, Kronenburg, Alliance, and Reynsdorp. This area is vulnerable to electricity failures as it is supplied with a single river crossing cable. A failure in the current river cable would imply an interruption of the electricity supply for several weeks in the ROC area and the installation of the second cable provides reliability.

1.34 **Subcomponent 2.3. Diversification of Energy Matrix (US$1 million).** This subcomponent will finance studies and pre-investments related to RE and LNG,[30] including: (i) pre-investment support for tender processes related to utility-scale RE (solar, biomass, wind) in line with the electricity law and the analysis of safe incorporation of RE to the grid; and (ii) a feasibility study for the introduction of LNG, including the evaluation of the best alternative for implementation and the analysis of different types of public-private arrangements.[31]

1.35 **Component 3. Electrification of Rural Areas (US$7.95 million).** This component will implement rural electrification projects that include expanding distribution networks, upgrades or building of feeders and substations connected to the national grid and the development of solar mini grids to increase access and improve quality of service in rural villages. It has four subcomponents:

1.36 **Subcomponent 3.1. Electrification of Koina Kondre and Surrounding Areas (US$2.2 million).** This subcomponent will finance a new 12 kV distribution system (24 km) to connect several villages in the Koina Kondre area, south of Powakka. This system would expand from the substation in Powakka[32] to the southern village of Marshall Creek. In the area, villages are not connected to the NPS and electricity is provided by small diesel generators owned and operated by the MNH. Although the service provided is free, most households only receive four to five hours of electricity a day. Other households do not receive any electricity. This subcomponent will allow EBS to expand coverage and provide customers with continuous 24-hour service. Approximately 600 households, along with two recreational centers, and five wood concessionaires would be initially directly benefited from the project. Once access to the EPAR system is in place, housing developments, businesses, and industries are expected to grow in number as has been seen in many countries of the region.[33] EBS would also be able to use the new distribution system to accommodate any new demand in the area.

1.37 **Subcomponent 3.2. Solar PV plant in Brownsweg (US$2.5 million).** This subcomponent will finance a 500 kilowatt peak (kWp) solar plant with battery energy storage, in Brownsweg, the main village for the Brokopondo district (see OEL#8). Brownsweg is currently connected to the main grid and receives 24/7 electricity. However, service quality is poor, hampering the economic development

---

30 These studies will be done in close collaboration with the MNH as the agency responsible for policy setting and implementation.

31 During the execution of this subcomponent, the Project Team will have the support of IDB Invest, the private sector arm of the IDB Group, to review tender documents and provide guidance to facilitate private investment.

32 3059/OC-SU financed the construction of the substation Powakka with the goal to connect to the main grid and provide 24/7 electricity to several communities in the area. The substation was designed to accommodate future connections.

33 Barnes, Douglas; Samad, Hussain; Rivas, Salvador (2019) "Meeting Challenges, Measuring Progress: The Benefits of Sustainable Energy Access in LAC". IDB Monograph-626.

in the village. This situation is expected to worsen due to Brownsweg's demand growth. The solar plant is expected to improve the quality, security and reliability of the electricity supply, while diversifying the electricity matrix in Suriname by introducing RE. This will be the first solar plant in a rural village from Suriname connected to the main national grid, bringing technological innovations to EBS.

1.38 **Subcomponent 3.3. Solar PV plant in Alliance (US$1 million).** This subcomponent will finance a 200 kWp solar plant, including two hours of energy storage in Alliance (one of the plantations in the ROC area). The solar plant will be connected to the existing 12 kV distribution line to increase the supply of RE. The transmission system in the Commewijne area is subject to load disconnections resulting from single line outages. The solar plant will improve the quality, security and reliability of the electricity supply in Alliance and the ROC area.

1.39 **Subcomponent 3.4. Solar PV Mini Grids in the Upper Suriname River (US$2.25 million).** This subcomponent will finance the development of solar mini grids in the area of the Upper Suriname river to bring electricity 24/7 to villages currently lacking access. The GoS gave a mandate to EBS to electrify 12 villages located between Pokigron and Nieuw Aurora by executing a grant from the European Union of €5 million (approximately US$5.7 million) under the supervision of the IDB. The grant, which is being executed by EBS, is intended to fund the installation of ten solar mini grids, with energy storage and diesel as a backup, to provide electricity 24/7 to 12 villages in the Upper Suriname river with a total of 4,200 inhabitants (Gingeston, Pambooko, Abenaston, Amakakonde, Kajapaati, Jawjaw, Lespaansie, Adawai, Gunsi, Laduani, Tjalikondë and Nieuw Aurora). However, a pre-feasibility study estimated the total cost of the ten mini grids for the 12 villages will be higher than the available grant amount and this subcomponent will finance the gap with the deployment of the necessary mini grids to complete the 12 villages including the upgrade to the distribution infrastructure in the villages.

1.40 **Administration, Monitoring Evaluation (US$1.15 million) and Contingencies (US$1 million).** The project will also finance support to the two EA, Monitoring and Evaluation (M&E) activities and external audits. There is also a provision for contingencies.

C. Key Results Indicators

1.41 The Results Matrix (RM) includes the main outcome and output (products) indicators of this project. Outcome indicators will measure: (i) improvements in the quality of the provision of electricity by increasing reliability; and (ii) households with new or improved access. Output indicators will monitor the delivery of the products, including: (i) tools for the EAS; (ii) kilometers of TLs; (iii) kms of distribution grid; (iv) solar PV capacity installed; and (iv) household connections with 24/7 electricity service.

1.42 Long term impacts of the project will be an increase in solar energy participation in the energy matrix and increase of electricity access rate of the country.

1.43 The beneficiaries of this project will be businesses and communities from rural areas served by EPAR that will receive better service from the NPS, as well as the

rural population in the Hinterland that will receive 24 hours of electricity; and who are currently underserved or have no access at all to electricity. Institutional beneficiaries will be the EAS and EBS.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing Instruments

2.1 This project will be implemented as a specific investment loan of US$30 million to be financed with resources from the Bank's Ordinary Capital (OC) under the Flexible Financing Facility. The execution activities along with the timeline and costs to be supported by the project are in the Project Operations Manuals (POM). The execution is planned for 5 years, with disbursement schedule shown in table 1.

Table 1. Disbursement schedule (US$)

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	840,000	3,260,000	9,210,000	10,940,000	5,750,000	30,000,000
Percentage of Disbursement %	2.80	10.87	30.70	36.47	19.16	100

2.2 Table 2 provides the cost summary by investment categories and components according to section I.B.

Table 2. Summary of Project costs (US$)

Work Breakdown Structure (WBS)	Components/Products	IDB	%
1	**Component 1: Institutional Framework**	**12,700,000**	**42.3**
1.1	EAS	2,000,000	6.7
1.2	DMS and Systems Integration	9,700,000	32.3
1.3	Strengthening of EBS	1,000,000	3.3
2	**Component 2: Critical Infrastructure and energy diversification**	**7,200,000**	**24.0**
2.1	TL Powakka-Zanderij	3,000,000	10.0
2.2	Upgrade Distribution Grid Commewijne	3,200,000	10.7
2.3	Diversification of energy matrix	1,000,000	3.3
3	**Component 3: Electrification of rural areas**	**7,950,000**	**26.5**
3.1	Electrification of Koina Kondre and surrounding areas	2,200,000	7.3
3.2	Solar PV plant in Brownsweg	2,500,000	8.3
3.3	Solar PV plant in Alliance	1,000,000	3.3
3.4	Solar PV mini grids in the Upper Suriname River	2,250,000	7.5
4	**Administration, monitoring and evaluation**	**1,150,000**	**3.8**
	Contingencies	**1,000,000**	**3.3**
	TOTAL	**30,000,000.00**	**100.0**

2.3 **Disbursement Restrictions.** Pursuant to Document AB-2990, the disbursement of Bank resources (OC) will be subject to the maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months. These limits may not apply if the

requirements established in the Bank's policy in this regard have been fulfilled, provided that the borrower has been notified in writing. These periods will be counted from the time the loan operation is approved by the Board of Executive Directors.

B. Environmental and Social Safeguard Risks

2.4 This Category "B" operation is relatively small, in terms of financing and overall footprint of the interventions since it does not finance any large infrastructure, large earth movement or heavy traffic of machinery and vehicles. It is not expected to physically or economically displace families or businesses, nor negatively affect indigenous or afro-descendant communities, or other vulnerable groups. It does not plan to convert any critical natural habitats or cultural sites.

2.5 The main environmental and social impacts and risks are expected during the construction phase for Components 2 and 3 and are related to typical construction and upgrade of existing TL and installation of small solar plants. No affectations to households, businesses or other structures are expected. It is expected to generate minor amounts of dust and solid waste, also noise or traffic disruptions for urban and rural dwellers.

2.6 EBS has a good capacity for stakeholder engagement. For this operation, EBS carried out one meaningful public consultation process following the Bank's policies and guidelines for Category "B" projects; focusing on beneficiaries from different ethnic and cultural backgrounds in several locations. The consultation process included several personalized events with relevant stakeholders, confirming a strong support towards several investments under the project. One exception is the construction of the transmission line Powakka-Zanderij under Subcomponent 2.1. In this instance, members from the Hannover Community (in the Para District) expressed concerns due to previous compensation commitments and land tenure issues related to the road constructed by the Ministry of Public Works that used part of their lands and whose right of way will be used for the TL. This was explained in a meeting with the community on September 18th, 2019. This risk is deemed high. Although the road is not part of the project, the mitigation is that EBS will need to manage associated risks and liabilities to reach a satisfactory agreement with key stakeholders before first disbursement for Subcomponent 2.1. For more information, see the ESMR.

2.7 The operation has a low natural disaster risk rating, due to risks associated with high winds, but is not expected to exacerbate disaster risks because it seeks to promote adaptation measures for potential impacts from natural disasters. The environmental and social risk rating for this operation is "high", mostly due to social risks, liabilities and false expectations. Considering the above-mentioned context, this operation was categorized as "B" since it may cause mostly local and short-term negative impacts; for which effective mitigation measures are readily available.

2.8 EBS will manage referred impacts and risks through the implementation of an Environmental and Social Management Plan (ESMP), that will be an annex of the EBS' POM, and the Bank will require contractual conditions for supervision and compliance of environmental and social requirements. See Annex B of the ESMR.

C. Fiduciary Risk

2.9 The responsibility for reporting to the Ministry of Finance (MoF) and the Bank on fiduciary matters rests with the EBS for Subcomponents 1.2, 1.3 and Components 2 and 3. A procurement and financial management capacity assessment of EBS was undertaken in July 2019 using the Institutional Capacity Assessment (ICAS) tool which was applied to the existing PEU within EBS. Coupled with the Bank's knowledge and experience gained from the execution of loan operations: "Support to Improve Sustainability of the Electricity Service" (3059/OC-SU) and "Support for the Implementation of the EBS Investment Plan" (3403/OC-SU), the assessment concluded the fiduciary risks is low. Notwithstanding, the Bank will continue to provide support to increase institutional capacity of the PEU.

2.10 The responsibility for reporting to the MoF and the Bank on fiduciary matters rests with MNH for Subcomponent 1.1. The procurement and financial management capacity assessment carried out for MNH, using the ICAS tool, coupled with the Bank's knowledge and experience with MNH from the execution of the Investment Grant "Development of Renewable Energy, Energy Efficiency and Electrification" (GRT/FM-13774-SU), deem as medium the fiduciary risk. The Bank will provide fiduciary training to the PEU, support, and conduct close fiduciary supervision. The fiduciary risk will be monitored during the disbursement period of the project through a supervision plan designed for such purpose.

D. Other Risks and Key Issues

2.11 **Institutional Viability.** The implementation of the new EAS has been slow and there could be modifications to the scope of subcomponent 1.1 which has been identified as a public management and governance medium risk. To mitigate this risk, discussions took place with authorities to agree on the scope of the activities that will be financed under subcomponent 1.1, which will be aligned with the Electricty Act and the Electricity Sector Plan. Another medium risk is the weak project management capacities of MNH that will be mitigated with training in project management and regular meetings with the project team to review progress. Additionally, if the construction of the new road between Plantation Richelieu and Mariënburg is not completed (in time) by GoS, it might delay the delivery of the new distribution line in the Commewijne project. This has been classified as a medium technical risk, and to mitigate it EBS will engage with Ministry of Public Works to emphasize the importance of the timely completion of the new road. In all aspects mentioned above and related to the execution of the project, EBS will further coordinate with the Steering Committee, chaired by MNH, to harmonize with the ongoing activities in the power sector (p. #3.5). Also, as part of the mitigating actions, the personnel required for EBS is already in place and MNH will complete the key personnel through selective hiring.

2.12 **Financial Sustainability.** GoS finances the utility by subsidizing the cost of electricity and fuel purchased by EBS. Nevertheless, the subsidized tariff only covers a portion of these costs, which in turn reduces EBS' financial capacity to invest in energy infrastructure, resulting in postponed or scaled-down investments. EBS therefore maintains a delicate balance in its financial situation, preserved by various types of GoS subsidies. This situation can be maintained over time,

propped up by fiscal resources, as has been the case to date. There is a low risk in EBS' financial situation negatively affecting progress of the project as this is being mitigated by joint efforts from GoS and EBS.[34]

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of Implementation Arrangements

3.1 **Borrower and Executing Agency.** The Borrower is the Republic of Suriname. There will be two EA. MNH will execute Subcomponent 1.1 and EBS will execute subcomponents 1.2, 1.3 and Components 2 and 3. Each EA will establish its own PEU and will have its POM to govern the execution. The PEU in EBS will draw on the existing capacity for managing 3059/OC-SU and 3403/OC-SU projects. MNH will commit personnel of the Ministerial Planning Unit (MPU) for its PEU. Funds will flow to separate designated accounts for each entity, opened at the Central Bank of Suriname and maintained by the MoF. Each EA will be responsible for submitting interim financial reports to the Bank to document expenditures and the semiannual progress reports. This execution structure with two EAs is required to avoid conflict of interest within the governance of the sector, where MNH plays a policymaking role to strengthen the regulatory agency and EBS is a regulated company.

3.2 Each EA will be responsible for, *inter alia*: (i) technical execution of the project; (ii) procurement of goods, related services, works and consulting services; (iii) reviewing consulting products; (iv) registering accounting information of project funds; (v) managing contracts; and (vi) reporting to the Bank according to the provisions of the loan, the POM and the M&E structure agreed upon with the Bank.

3.3 **Execution by EBS.** The PEU in EBS will consist of: (i) Project Manager (PM); (ii) procurement specialist; (iii) financial specialist; (iv) environmental and social specialist; and (v) component coordinators for each of the project's components.[35] Execution will rely on a POM to be agreed between the Bank and EBS. The POM shall include, among others, administrative, procurement and financial management policies, procedures and internal control requirements, as well as the ESMP. **Special Conditions to the First Disbursement of Subcomponents 1.2, 1.3 and Components 2 and 3 are**: **(i) approval by EBS and entry into effect of the (POM) in connection to Subcomponents 1.2, 1.3 and to Components 2 and 3, in the terms previously agreed with the Bank; (ii) approval and entry into effect of a subsidiary agreement entered into between the Ministry of Finance and EBS for purposes of the use of loan resources and the implementation of the Project;[36] and (iii) establishment of the PEU and the selection of its key personnel, in accordance with the terms previously**

[34] Tariff Methodology Report and Subsidy Methodology Report from the Electricity Sector Plan 2019-2023 completed in 2018.

[35] Considering that under 3059/OC-SU and 3403/OC-SU loans, a Project Executing Unit (PEU) was established and is currently dedicated to the implementation of activities with similar scope as of the proposed Project.

[36] EBS is a state-owned company with its own legal status and requires the agreement to have the legal basis to execute its part of the project.

agreed with the Bank. The key personnel are the: (a) project manager; (b) environmental and social specialist; (c) procurement specialist; and (d) financial specialist. These conditions are needed to assure that an adequate team, the rules of operation and supporting agreement will be in place to initiate and conduct execution. **Special Condition to the first Disbursement of Subcomponent 2.1 is: submission of evidence to the satisfaction of Bank, that demonstrates that Suriname holds the legal ownership and/or adequate rights-of-way of the land where the TL described in Subcomponent 2.1 will be placed**. This condition is to assure that Suriname holds the ownership and/or adequate rights-of-way of the land where the transmission will be placed.

3.4 The PM of the PEU of EBS will be responsible for the overall coordination of the project, including the preparation of the terms of reference; support to the selection process for contracting consultants of goods and/or services; the review of products delivered by consultancy firms, and will undertake budget administration, logistics, local support and coordination among stakeholders. The PM will have responsibility to coordinate with the projects from the other operations financed by the Bank, 3059/OC-SU and 3403/OC-SU, and other donors to assure the expected overall results from EBS' are achieved.

3.5 A project steering committee conformed by MNH, MoF and EBS will offer regular input and advice on project implementation at the strategic level and will serve as a facilitator for dialogue with other relevant stakeholders, such as the Ministry of Regional Development or the EAS once it is operating. The PM of EBS' PEU will act as Secretary and the representative of MNH will be the chairperson.

3.6 **Execution by MNH.** The PEU of MNH will consist of the following key personnel: (i) a PM; (ii) a procurement specialist; and (iii) a financial specialist. The execution of Subcomponent 1.1 will rely on a POM that will include, among others, administrative, procurement, financial management policies, procedures, internal control requirements and the ESMP. **Special Conditions to the first disbursement of Subcomponent 1.1: (i) approval by the MNH and entry into effect of the POM in connection to Subcomponent 1.1, in the terms previously agreed with the Bank; and (ii) establishment of the Project Execution Unit (PEU) and the selection of its key personnel, in accordance with the terms previously agreed with the Bank. The key personnel are the: (a) project manager; (b) procurement specialist; and (c) financial specialist.** These conditions are needed to assure that an adequate team and the rules of operation will be in place to initiate and conduct execution.

3.7 **Procurement.** The procurement of goods and works, as well as the selection and hiring of consultants and consulting firms for the development of the activities comprised by this project, will be carried out in accordance with the Bank's policies and procedures for the Procurement of Goods and Works (GN-2349-9); and for the Selection and Contracting of Consultants (GN-2350-9), in line with the provisions established in the agreement and the Procurement Plan. The Bank and each EA have agreed on a first Procurement Plan.

3.8 **Retroactive Financing.** The Bank may finance retroactively under the loan eligible expenses incurred by the borrower prior to the date of the loan approval, to finance activities foreseen in Subcomponent 3.1 related to the purchase of distribution equipment and material. Up to the amount of US$2.2 million (7.3% of the proposed loan amount), if requirements substantially similar to those established in the loan agreement have been met. These expenses must have been incurred on or after January 18th, 2019 (approval date of the Project Profile) but no more than 18 months prior to the IDB Board's loan approval date.

3.9 **Auditing.** The external audit of the project will be performed by independent audit firms acceptable to the IDB. Audits will be performed in accordance with IDB's Guidelines for Financial Reports and External Audit. Each PEU will be responsible for contracting an external auditor eligible to the IDB as follows: (i) an annual financial audit to be submitted within 120 days of the end of each fiscal year; (ii) a semi-annual financial statement as part of the semi-annual progress report of the project; and (iii) one final financial audit of the project to be submitted within 120 days after the last disbursement date of the project.

3.10 **Financial Management.** Financial management of the project will be carried out in accordance with the IDB's Management Guidelines (OP-273-6). Financial programming will be carried out based on standard models included in IDB's project disbursement guide. The IDB will determine the supervision procedures necessary to verify the success of the project, including independent financial auditing performed in accordance with the guidelines for financial reporting and external auditing of projects financed by the IDB.

B. Summary of Arrangements for Monitoring Results

3.11 **Monitoring.** The monitoring process and the preparation of semi-annual reports during the project execution period will be responsibility of each EA that should be submitted to the IDB within 60 days of the end of each calendar semester. The RM will be the basic instrument for monitoring project outputs and outcomes according to the established indicators. The M&E plan will facilitate the process and provide guidance to each EA. The IDB will be monitoring the project both from the Energy Division and the Country Office in Suriname, with *ad-hoc* visits to each EA and the project sites. During the execution, Operation and Maintenance will be closely monitored to ensure that safety and quality assurances standards for the new infrastructure are maintained. Each EA will also be responsible for preparing the financial statements needed for the annual financial audits of project statements. The scope of the external audit can be modified according to needs identified during project execution.

3.12 **Evaluation.** The M&E Arrangements agreed upon with each EA include: (i) a mid-term evaluation within 90 days either after the end of a 36-months period from the date of the signature of the loan contract or after 60% of the resources have been committed, whichever occurs first; and (ii) a final independent evaluation within 90 days after the date on which 90% of the loan proceeds have been disbursed, or after the Bank's official request. The final evaluation for Components

2 and 3 will include the results from an ex-post economic analysis. All evaluations will be financed with project resources that will contract independent analysis.

Development Effectiveness Matrix		
Summary		
I. Corporate and Country Priorities		
1. IDB Development Objectives		
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change and Environmental Sustainability -Institutional Capacity and the Rule of Law	
Country Development Results Indicators	-Reduction of emissions with support of IDBG financing (annual million tons CO2 e)* -Installed power generation from renewable energy sources (%)* -Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery (#)* -Households with new or improved access to electricity supply (#)* -Electricity transmission and distribution lines installed or upgraded (km)*	
2. Country Development Objectives		
Country Strategy Results Matrix	GN-2873	Increasing agriculture productivity
Country Program Results Matrix	GN-2948-2	The intervention is included in the 2019 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution		9.6
3.1 Program Diagnosis		3.0
3.2 Proposed Interventions or Solutions		3.6
3.3 Results Matrix Quality		3.0
4. Ex ante Economic Analysis		7.0
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		0.0
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		1.0
4.4 Sensitivity Analysis		2.0
4.5 Consistency with results matrix		1.0
5. Monitoring and Evaluation		7.2
5.1 Monitoring Mechanisms		2.5
5.2 Evaluation Plan		4.7
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood		Medium
Identified risks have been rated for magnitude and likelihood		Yes
Mitigation measures have been identified for major risks		Yes
Mitigation measures have indicators for tracking their implementation		Yes
Environmental & social risk classification		B
IV. IDB´s Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)		
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

The objective of the project is to improve rural economic development by ensuring adequate and modern access to sustainable electricity to enhance the living conditions of the rural population while improving the rural business environment with better provision of electricity as a public service.
The program diagnosis identifies the main problems and provides empirical evidence of the situation of the energy sector in the country, which in general backs up the proposed interventions. In general, the results matrix reflects the vertical logic described in the POD, covering the inputs, outcomes and results. The indicators in the results matrix meet the SMART criteria and include the sources and means of verification that will be used to measure them.
The economic analysis relies on a cost-benefit analysis. The benefits are quantified for the lifetime of the project. Nonetheless, given the lifetime of the project, the costs are a little too conservative and they do not consider the replacement of solar panels as well as the lifetime of batteries. Not all the assumptions of the analysis are supported by references. Finally, the program will evaluate the results achieved using the before-after comparison without attribution.

RESULTS MATRIX

Project Objective:	The general objective is to improve rural economic development, by ensuring adequate and modern access to sustainable electricity to enhance the living conditions of the rural population while improving the rural business environment with better provision of electricity as a public service. The specific objectives are to: (i) advance the implementation of energy reform through support to the Energy Authority of Suriname (EAS) and operational management of the EBS; (ii) increase the reliability of the power system and promote the diversification of the energy matrix through financing pre-investment activities related to Renewable Energy (RE) and Natural Gas (NG); and (iii) expand electricity coverage through a combination of grid extension and off-grid- systems, increasing the provision of RE systems.

EXPECTED IMPACT

Indicators	Unit of measure	Baseline	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of verification	Observations
DIVERSIFICATION OF ELECTRICITY MATRIX										
Solar energy contribution in the energy matrix	Percentage	0.5%	2018					1%	Key Performance Indicators database (EAS)	n/a
INCREASE OF ENERGY COVERAGE										
Country's electricity access rate	Percentage	90%	2018					95%	Key Performance Indicators database or OLADE's report.	n/a

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Observations[2]
OUTCOME # 1: A MORE RELIABLE ENERGY SUPPLY SYSTEM											
Indicator #1: Reduction of SAIDI in Zanderij area	Minutes	0	2019	0	0	0	0	2,633	2,633	Impact evaluation study. Data to be provided by EBS.	n/a
Indicator #2: Number of households with improved service (Right Bank Commewijne)	Households	0	2019					500	500	Data to be provided by EBS customer services.	Pro-Gender
OUTCOME # 2: RURAL AREAS WITH ACCESS TO SECURED AND SUSTAINABLE ENERGY SUPPLY											
Indicator #3: Electricity supplied by grid extension in rural areas (Koina Kondre area)	MWh/year	0	2019				5,575	5,855	5,855	Impact evaluation study. Data to be provided by EBS.	n/a
Indicator #4: Electricity supplied by solar plants in rural areas financed by the project (Brownsweg, Alliance and Upper Suriname)	MWh/year	0	2019				1,276	1,276	1,276	Impact evaluation study. Data to be provided by EBS.	n/a

OUTPUTS

Outputs	Unit of measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	Year 5	End of project	Means of verification	Observations[2]
Component # 1: Institutional Framework											
Output #1: Energy Authority of Suriname organizational documents completed	Studies	0	2019		1		1		2	Studies provided by MNH.	n/a
Output #2: Database for Key Performance Indicators completed	System	0	2019			1			1	Project reports, inspection visits.	n/a
Output #3: Proposal for Electricity Sector Plan 2024-2028 completed	Studies	0	2019					1	1	Studies provided by MNH.	n/a
Output #4: DMS information system developed and pilot project completed	System	0	2019					1	1	Project reports, inspection visits.	n/a
Output #5: IT systems integrated with OMS and DMS	System	0	2019					1	1	Project reports, inspection visits.	n/a
Output #6: Technical guidance for EBS re-organization completed	Studies	0	2019		1		1		2	EBS unbundling completed.	n/a
Output #7: Trainings to EBS completed	Number of people trained	0	2019		25	25	25	25	100	Training material and list of participants	n/a

Outputs	Unit of measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	Year 5	End of project	Means of verification	Observations[2]
										provided by EBS.	
Output #8: Strategy for gender equity and people with disabilities	Strategy	0	2019		1				1	Strategy provided by EBS.	Pro-Gender
Component # 2: Critical infrastructure and energy diversification											
Output #1: New 33kV Overhead Transmission line from substation Powakka - Substation G (20 km) procured, installed and commissioned	Km	0	2019		10	10			20	Progress reports, inspection visit.	n/a
Output #2: New 12 kV river cable Commewijne installed and commissioned	Km	0	2019				1		1	Progress reports, inspection visit.	n/a
Output #3: New 12 kV distribution grid Plantation Richelieu - Marienburg installed and commissioned	Km	0	2019				10		10	Progress reports, inspection visit.	n/a
Output #4: New 12 kV distribution grid Right Bank Commewijne river installed and commissioned	Km	0	2019				9		9	Progress reports, inspection visit.	n/a
Output #5: Feasibility study for completed LNG plant	Studies	0	2019				1		1	Documents provided by EBS.	n/a

Outputs	Unit of measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	Year 5	End of project	Means of verification	Observations[2]
Output #6: Tender documents for the procurement of Renewable Energy completed	Studies	0	2019				1		1	Documents provided by EBS.	n/a
Component # 3: Electrification of rural areas											
Output #1: New 12 kV distribution grid (Substation Powakka - Marshall bridge) procured, installed and commissioned	Km	0	2019	15	9				24	Progress reports, inspection visit.	n/a
Output #2: New customers in target area (Koina Kondre) contracting electricity 24/h from EBS	Households	0	2019	99	149	248			496	Data provided by EBS customer service.	n/a
Output #3: Solar plant in Brownweg installed	kW	0	2019				500		500	Progress reports, inspection visit.	n/a
Output #4: Extension 12 kV distribution grid at Brownsweg installed and commissioned	Km	0	2019			5			5	Progress reports, inspection visit.	n/a
Output #5: New customers in target area (Brownsweg) contracting electricity 24/h from EBS	Households	1600	2019			15	10		25	Data provided by EBS customer service.	n/a
Output #6: Solar plant in Alliance installed	kW	0	2019				200		200	Progress reports,	n/a

Outputs	Unit of measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	Year 5	End of project	Means of verification	Observations[2]
										inspection visit.	
Output #7: Solar plants in Upper Suriname installed	kW	0	2019				250		250	Progress reports, inspection visit.	n/a
Output #8: New distribution grid at Upstream Suriname Villages installed and commissioned	Number	0	2019				5	5	10	Progress reports, inspection visit.	n/a
Output #9: New customers in target area (Upper Suriname) contracting electricity 24/h from EBS	Households	0	2019				100	250	350	Data provided by EBS customer service.	n/a

FIDUCIARY ARRANGEMENTS

COUNTRY: Republic of Suriname

PROJECT: Consolidating a Sustainable Energy Sector (SU-L1055)

EXECUTING AGENCY: EBS and the MNH

FIDUCIARY TEAM: Vikash Bhagirath, Fiduciary Financial Management Consultant; Mariska Tjon A Loi, Fiduciary Procurement Specialist

I. EXECUTIVE SUMMARY

1.1 The general objective of the Project is to improve rural economic development, by ensuring adequate and modern access to sustainable electricity to improve the living conditions of the rural population while improving the rural business environment with better provision of electricity, through an IDB investment loan of US$30 million.

1.2 The Project will be executed by two EAs: the MNH for Subcomponent 1.1 and EBS for the other Subcomponents of the Project 1.2, 1.3 and Components 2 and 3. Each EA will have a PEU (for each)/ Each PEU will have its own Project manager and procurement and financial management specialist. The PEU in EBS will have in addition an environmental specialist. The PEU in EBS will draw on the existing capacity for managing 3059/OC-SU and 3403/OC-SU projects. Funds will flow to separate designated accounts for each entity, opened at the Central Bank of Suriname and maintained by the MOF. Each PEU will be responsible for submitting interim financial reports to the Bank to document expenditures and the semiannual progress reports.

1.3 EBS has extensive experience executing Bank-financed Loans 3059/OC-SU and 3403/OC-SU. MNH has very limited experience executing Bank-financed operations, thus far the only operation is the Global Environmental Facility (GEF) grant “Development of Renewable Energy, Energy Efficiency and Electrification” (GRT/FM-13774-SU). The fiduciary aspects for the present Loans are analyzed accordingly. A procurement and financial management capacity assessment was undertaken for EBS and MNH in July 2019, using the ICAS. Based on the results from this assessment done for EBS, coupled with the Bank’s experience with EBS for the execution of the loan operations 3059/OC-SU and 3403/OC-SU, the fiduciary risk is deemed low. The ICAS tool applied for MNH indicates that the fiduciary risk is Medium. To mitigate this risk, the Bank will provide and conduct close fiduciary support and supervision while providing training and advice on IDB’s policies, procedures and practices. The level of the fiduciary risk will be monitored during the execution period of the Project through a supervision plan designed for such purpose while also taking into consideration that the loan component that will be executed by MNH comprises 6.7% of the total loan amount and has fewer procurement activities foreseen.

II. EXECUTING AGENCIES' FIDUCIARY CONTEXT

2.1 EBS is a state-owned company under the supervision of the MNH. The fiduciary context of the GoS and its line ministries has been documented in the Public Expenditure Financial Accountability (PEFA) report of 2018, indicating that the legal framework and practices for Public Financial Management Systems (PFMS) and procurement are outdated and are not consistent with best practices and international standards.

2.2 The specific features of the EBS's PFMS are:

i. EBS's governance structure is headed by a Board of Directors, management roles composed by experienced officials, namely a Chief Executing Officer (CEO), a Chief Financial Officer (CFO) and a Chief Technical Officer (CTO).

ii. EBS's Financial Structure is headed by the CFO. The following units are established: treasury, planning budgeting and control; financial services (accounting) and the procurement unit, and other administrative units. These Units have solid financial and procurement staffing, although systems and business processes are under improvement process.

iii. The Financial services/accounting unit of EBS consists of qualified and experienced staff that have experience with execution of IDB financed loans. Continued training on Bank financial management policies is recommended.

iv. The company has its own PFM and procurement structure that is non-integrated or related to the centralized system and structure of the GoS. EBS's financial and accounting system has been developed in house and it is currently partially in use because it has been replaced by Enterprise Resource Planning (ERP) system from June 2018. The goal is to switch completely to this automated system in the future. Currently the budgeting and monitoring functions are not activated in the ERP system. These two processes are manual using excel worksheets. The ERP system is working on accrual basis accounting while the Bank's financial management policy's mandate to use the cash basis accounting system.

v. Based on the aforementioned observations related to EBS's PFM structure, the current financial and accounting systems will not be used for the purposes of the Project, since it cannot report according to the IDB's requirements. It was discussed and agreed with EBS that the accounting software system Quick Books currently in use for the execution of loans 3059/OC-SU and 3403/OC-SU will also be used for the accounting and recording needs of the Project.

2.3 The Procurement Unit of EBS is composed by the following units: Goods and services, Stores/inventory and projects. The Unit responsible for projects is executing loans 3059/OC-SU and 3403/OC-SU though the establishment of a PEU comprising among others, a procurement specialist, an assistant procurement specialist, a financial specialist, two managers, supported by technical staff from the EBS. This unit is currently dedicated to the implementation of activities with similar scope as of the proposed Project and has experience with execution of procurement activities based on the IDB procurement policies and procedures.

2.4 The specific features of the MNH's PFMS are:

The fiduciary context of the GoS as well as the line ministries is documented in the PEFA[1] review conducted in November 2018 as well the capacity assessment, which was undertaken for MNH in July 2019, using the ICAS method. The Bank's guide for the Use of Country Systems (GUS) Assessment was also conducted in April 2019. The relevant findings indicate that the legal framework for Public Financial Management (PFM) is outdated and not consistent with best practices. The GoS has committed to improving the PFM and procurement systems with IDB support through the establishment of effective mechanisms to perform these functions. Until these interventions have taken root, country systems relating to accounting and financial reporting, internal control, external control, external auditing and procurement will not be used. Currently, the financial management of the GEF funded grant "Development of Renewable Energy, Energy Efficiency and Electrification" (GRT/FM-13774-SU) in execution is outsourced to an external financial management company by MNH. In consequence, the portfolio of the Bank in Suriname is managed through the establishment of special project execution units (EAs) set up within the line ministries and/or semi- autonomous institutions called parastatals. This is also in accordance with the GoS objective to build sustainable capacity within the government. The Bank provides and conducts close fiduciary support and supervision on these institutional arrangements, and it provides continuous training and advice as needed on Bank's policies and procedures.

III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

3.1 The Fiduciary Risk is deemed low for the PEU in EBS. However, during the interviews for the ICAS assessment it was indicated that the PEU in EBS, responsible for the execution of IDB financed Projects, is experiencing a heavy workload and given that this same PEU will be executing this Project, recruiting more staff to strengthen the PEU is considered a mitigation measure to avoid potential bottlenecks in the execution of the procurement activities under the Bank's financed Loans.

3.2 For MNH, the fiduciary risk is deemed medium, therefore mitigation measures will be developed to strengthen the internal control environment, the financial planning and budgeting, accounting and financial reporting system, the procurement function and the institutional capacity as it relates to familiarity with IDB's fiduciary procedures and requirements. To this end, a PEU within MNH comprising the key staff i.e. a Project Manager, a financial management specialist and a procurement specialist will be set up. The main fiduciary arrangements will include formal and informal training processes to the specialists in charge of the fiduciary activities, the actualization of the Procurement Plan (PP), the deployment of an accounting software system for the recording and reporting, a Project operating manual to be developed as well as external audit arrangements.

[1] The final PEFA 2018 report was submitted in April 2019 to the GoS by the Bank seeking authorization for publication on the website of the PEFA Secretariat.

IV. REQUIREMENTS AND AGREEMENTS FOR THE EXECUTION OF THE PROCUREMENT

4.1 **Procurement Execution.** Procurements for the proposed will be carried out in accordance with the Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank (GN-2349-9) dated March 2011, and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (GN-2350-9) dated March 2011, with the provisions established in the Loan Contract and the PP.

4.2 **Procurement of Goods, Works and Non-Consulting Services.** Procurement under the Project will be governed by IDB GN-2349-9 Policies for the Procurement of Goods and Works. The PP indicates the procedures to be used for the contracting of goods, works and non-consulting services generated under the project. Activities subject to National Competitive Bidding (NCB) may be executed using National Bidding Documents satisfactory to the IDB. Where these are not available, IDB's Standard Bidding Documents will be used. The review of technical specifications during the preparation of the selection process is the responsibility of IDB project sector specialist.

4.3 **Selection and Contracting of Consultants.** Procurement of Consulting services will be conducted in accordance with GN-2350-9; Policies for the Selection and Contracting of Consultants. The PP indicates the procedure to be used for the contracting of consulting services. Review of Terms of Reference (TOR) for the selection of consulting services is the responsibility of IDB's sector specialist.

4.4 **Selection of Individual Consultants.** Individual Consultants will be selected in accordance with the policies referenced above.

4.5 **Recurrent Expenses.** The Project will finance recurrent expenses for each EA including the remuneration of PEUs personnel, utilities for office facilities, advertisements, photocopies, mailing services.[2]

4.6 **Retroactive Financing.** The Bank may finance retroactively under the loan eligible expenses incurred by the borrower prior to the date of the loan approval, to finance activities foreseen in Component 3.1 related to the purchase of distribution equipment and material. Up to the amount of US$2.2 million (7.3% of the proposed loan amount), provided that requirements substantially similar to those established in the loan agreement have been met. These expenses must have been incurred on or after January 18th, 2019 (approval date of the project Profile) but no more than 18 months prior to the IDB Board's loan approval date.

4.7 **Training.** The detailed PP indicates which consultancy services, training and workshops are applicable. As per GN-2350-9 if the assignment includes an important component for training or transfer of knowledge to Borrower staff or national consultants, the TOR shall indicate the objectives, nature, scope, and goals of the training, including details on trainers and trainees, skills to be transferred, time frame, monitoring and evaluation arrangements. The cost for the

[2] Recurrent costs financing will be allowed when: (i) it is requested by the Borrower, (ii) it can be showed that the costs are part of the project; (iii) they are necessary for fulfilling the development objectives; and (iv) they are productive in the context of the specific project being supported.

training shall be included in the consultant's contract and in the budget for the assignment.

PP and Supervision. The PP covering the duration of the indicates the procedures to be used for the various categories and types of procurement. It also indicates the estimated cost of each contract or group of contracts and the requirement for prior or post review by the Bank. Ex-ante supervision will be maintained for high risk/value activities. Where ex-post review is applied, reviews will be performed at least once per year but may be more frequent if the volume of activities warrants. The ex-post review process will include at least once physical inspection visit. The PP will be updated annually or as necessary as required by the Bank.

4.8 Country Thresholds for Procurement (in US$ thousands) www.iadb.org/procurement

Thresholds for the Procurement of Goods, Works and Selection of Consulting Services

Works			Goods			Consulting Services
International Competitive Bidding	National Competitive Bidding	Shopping/ Price Comparison	International Competitive Bidding	National Competitive Bidding	Shopping/ Price Comparison	Short Lists Solely by Nationals/ NCB
≥1,000	100 – 1,000	<100* <1,000**	≥100	25 - 100	<25* <100**	<100

* When procuring complex works and non-common goods with amounts under the NCB range, Shopping shall be used.

** When procuring simple works and common goods and their amount is under the International Competitive Bidding thresholds, Shopping may be used.

V. SPECIFIC FIDUCIARY ARRANGEMENTS FOR FINANCIAL MANAGEMENT

5.1 **Programming and Budget.** EBS and MNH starts with a strategic planning process that is the basis for the annual budgeting, which is translated into department budgets. The Budgeting process, as well as the monitoring, are not automated. The process is managed on a manual basis using Microsoft Excel by EBS and MNH.

5.2 For the purposes of the Project, both EAs will prepare and implement the Project planning documents, including the Project Execution Plan (PEP), the Annual Operation Plan (AOP), the Project Operation Manual (POM), and the PP, consistent with a financial plan. PEP and AOP need to be submitted to the Bank no later than November 30 of each year during the Original Disbursement period and reviewed in each semi-annual progress report.

5.3 **Treasury.** Disbursements and flow of Funds: EBS has a treasury function that executes payments on the basis of the purchase orders entered in the accounting systems. Payments/expenditures completeness and all transactions are reviewed against Bank statements therefore reconciling items are also incorporated in the accounting systems. Bank's reconciliations are prepared in a monthly basis.

5.4 For MNH it is recommended that the financial specialist/ministerial planning unit works closely with the ministry's budgeting and accounting department and reconcile records monthly. It is recommended that deliverables completeness is validated before payments are processed. All transactions should be reviewed against Bank statements and other required supporting documents. Reconciling items should also incorporated in the accounting systems. Both EAs should provide a listing of authorized signatures to the Bank.

5.5 Both EBS and MNH will be responsible for the submission of all disbursement requests to the Bank through the MoF. The 12-month financial plan will serve as the basis for the determination of the funds the Bank will disburse to the EAs. Resources requested from Bank financing are payable according to the Advance of Funds for up to 180 days. The EAs will provide adequate control over the utilization of all Advance of Funds balance, whenever 80% of said balance has been spent. Advances will normally cover a period not exceeding 180 days.

5.6 EBS and MNH through the MoF, will open separate bank accounts at the Central Bank of Suriname for the management of the resources. This is a central government current requirement to use the Treasury Single Account (TSA) which is also applicable to public entities such as the EBS. The financial plan will serve as the basis for the disbursement of funds to the EA to cover the Project's 6-month cash flow needs. The main disbursement methodology will be the advance of funds, based on liquidity needs of the project. Other disbursement methodologies that will be used on a smaller scale are the Reimbursement of Payments Made and Direct Payment to Supplier.

5.7 **Disbursement restrictions.** Pursuant to Document AB-2990, the disbursement of Bank resources (OC) will be subject to the maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months. These limits may not apply if the requirements established in the Bank's policy in this regard have been fulfilled, provided that the borrower has been notified in writing. These periods will be counted from the time the loan operation is approved by the Board of Executive Directors.

5.8 Disbursements will be reviewed as ex-post, except for Requests for Direct Payment to Suppliers and Direct Payment to Borrower. Both EAs will be responsible for the maintenance of adequate and original documentation to support the project expenditures and shall be made available for the ex post reviews.

5.9 EBS will use QuickBooks or any other accounting software acceptable to the Bank for the financial administration of the Project. This includes recording and classification of all financial transactions, providing information related to planned versus actual financial execution of the Project, financial planning, financial reports performance reports, and any other reports, financial or otherwise, audited or unaudited, that may be required from the Bank from time to time. EBS has an internal audit department which will conduct periodic audits of the Project. For MNH it is recommended to use an off the shelf accounting software such as QuickBooks or any other accounting software acceptable to the Bank as the Integrated Financial Management Systems (IFMIS) system currently in use by is not adequate for the financial administration of Bank funded projects.

5.10 The EAs will establish an internal control system documented in the POM that should provide reasonable assurance that: (i) the Project funds are used for their intended purpose; (ii) Project assets are properly safeguarded; (iii) Project transactions, decisions and activities are properly authorized and documented; and (iv) Project transactions are executed in accordance with the established policies, practices and procedures delineated in the legal agreements. In addition, proper segregation of duties, approval authority levels for signature of contracts, commitment of funds, reception of goods and services and payment to suppliers and beneficiaries should be arranged adequately.

5.11 **External Control and Reporting.** The External audit of the Project will be performed by an independent audit firm acceptable to the IDB. Audits will be performed in accordance with IDB's Guidelines for Financial Reports and External Audit. The EAs will be responsible for contracting of an external auditor eligible to the IDB to perform the Project audit as follows: (i) an annual financial audit of the Project to be submitted within 120 days of the end of fiscal year; and (ii) one final financial audit of the Project to be submitted within 120 days after the date of last disbursement. The scope of the external audit can be modified according the needs identified during Project execution.

5.12 **Financial Supervision Plan.** IDB fiduciary staff will conduct inspection visits to both EAs on a semi-annual basis to ascertain the proper functioning of the accounting systems, the adequacy of the internal control system and follow up the fiduciary risk initially assessed.

5.13 **Execution Mechanism.** For EBS the Procurement and Financial specialist part of the PEU which is executing IDB loan "Support to Improve Sustainability of the Electricity Service" 3059/OC-SU will support the new PEU which will execute this operation. EBS Board will guide the Project on the strategic level providing guidance and orientation concerning Project priorities, monitoring progress of implementation according to the agreed time schedule and recommending on operational issues. EBS Management (Chief Technical Officer, Chief Executive Officer and the Chief Financial Officer) will lead decision making on the Executive Level and ensure overall coordination of technical components.

5.14 For MNH a dedicated Financial and Procurement specialist will be support the PEU for the execution of the Subcomponent 1.1. The permanent secretary of MNH and the ministerial planning unit will lead decision making on the executive with regards to project priorities, monitoring progress of implementation according to the agreed time schedule and recommending on operational issues.

5.15 The PEUs, technical officers, financial and procurements specialists will primarily operate on the technical and administrative levels on day-to-day basis. EBS and MNH will be responsible for assigning staff for these specific functions.

5.16 EBS and MNH as the EAs are responsible for the implementation of the (i) technical execution of project activities; (ii) selecting and contracting of goods, services and works; (iii) reviewing and approving consulting services; (iv) financial recording and reporting of Project funds; (v) managing consulting contracts and processing payments for consulting services and procurement of goods; (vi) reporting periodically to the IDB on the technical, administrative and financial activities of the Project; (vii) monitoring of Project progress towards outcomes and goals, and the identification of needs for adaptive management; and (viii) preparing and presenting progress reports.

5.17 **Records, Inspections and Reports.** Both EAs shall be responsible for maintaining updated files and records, permit inspections, submit reports maintain a managements accounting and financial administration system acceptable to the Bank and according to accepted best practices, and kept for up to three (3) years beyond the end of the Project's execution period.

5.18 **Exchange Rate.** The application of the exchange rate will be as follows:

i. **Reimbursement of Expenses Made.** the effective rate of exchange on the date of payment of each expenditure, as published by the Central Bank of Suriname.

ii. **Reporting on Accounts or justification of the Advance of Funds.** The effective rate of exchange used in the conversion of the currency of the operation to the local currency.

iii. **Disbursements in alternate currencies from the US$ and the Surinamese Dollar.** In cases of direct payment and reimbursement of a guarantee of letter of credit, the equivalent of the currency of the operation will be fixed in accordance with the amount effectively disbursed by the IDB.

5.19 Financial Statements and Reports, audited or unaudited:

i. Semi-annual financial reports are to be included in the semi-annual progress report, which will be submitted by both EAs to the Bank, 60 days after each semester during the Original Disbursement Period;

ii. Annual financial statements of the project, audited by an independent audit firm acceptable to the Bank, are to be submitted by both EAs to the Bank within 120 days at the end of each fiscal year, beginning with the fiscal year in which the first Project expenditures are incurred; and

iii. Final financial statements, audited by an independent audit firm acceptable to the Bank, are to be submitted by both EAs to the Bank within 120 days following the last disbursement date of the Project.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/19

Suriname. Loan ____/OC-SU to the Republic of Suriname
Consolidating a Sustainable Energy Sector

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Suriname, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the program “Consolidating a Sustainable Energy Sector”. Such financing will be for the amount of up to US$30,000,000 from the resources of the Bank’s Ordinary Capital and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on ___ _____ 2019)

LEG/SGO/CCB/EZSHARE-171363792-5048
SU-L1055