Operation Number	SU-G1001	Chief of Operations Validation Date	10/20/21
Year- PMR Cycle	First period Jan-Jun 2021	Division Chief Validation Date	
Last Update	12/21/21	Country Representative Validation Date	
PMR Validation Stage	Validated by Chief of Operations		

#### **Basic Data**

### **Operation Profile**

Operation Name	Development of Renewable Energy, Energy Efficiency and Electrification	Loan Number	GRT/FM-13774-SU
Executing Agency	MINISTRY OF NATURAL RESOURCES, MINISTRY OF NATURAL RESOURCES AND ENERGY	Sector/Subsector	ENERGY-RURAL ELECTRIFICATION
Team Leader	ABADAL COLOMINA, JORDI	Overall Stage	Disbursing (From eligibility until all the Operations are closed)
Operation Type	Investment Grants	Country	Suriname
Lending Instrument		Convergence related Operation(s)	
Borrower			

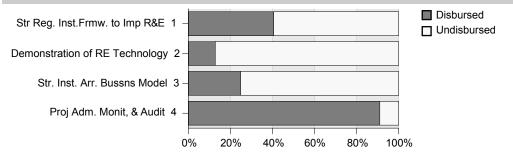
### **Environmental and Social Safeguards**

Impacts Category	С	Was/Were the objective(s) of this operation reformulated?	NO
Safeguard Performance Rating		Date of approval	
Safeguard Performance Rating - Rationale			

#### **Financial Data**

Item			Total Cost ar	nd Source	Available Funds (US\$)					
item	Original IDB	Current IDB	Local Counterpart	Co-Financing / Country	Total Original Cost	Current IDB	Disb. Amount to Date	% Disb	Undisbursed Amount	
SU-G1001	0	4,400,000	3,300,000	0	7,700,000	4,400,000	1,835,577.37	41.72%	2,564,422.63	
Aggregated	0	4,400,000	3,300,000	0	7,700,000	4,400,000	1,835,577.37	41.72%	2,564,422.63	

### **Expense Categories by Loan Contract (cumulative values)**



### **RESULTS MATRIX**

### **General Development Objectives**

General Development Objectives Nbr. 1: Greenhouse gases emissions reduction

#### Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement		Target
1.1	Annual amount of avoided greenhouse gases	tons CO2 equivalent per	0.00	2011	-	Р	8,110.00
		year)				Α	0.00

#### Details

**Means of verification:** project evaluation, GOS climate change (ATM) and

climate change (ATM) and sector reports (MNH)

Observations: Indicator is conform GEF-5 CCM 3.

Pro-Gender No Pro-Ethnicity No

The General Development bjective indicator target is expected tobe observed by the operation's "Fully Justified" date inConvergence (CO)

No

General Development Objectives Nbr. 2: Increase in Suriname electricity coverage

#### Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement		Target				
2.1	Population with access to	Percentage	85.00	2011	-	Р	90.00				
	electricity.					Α	85.00				
	Details										
Means	Means of verification: a										
Observ	Observations: a										
Pro-Ge	nder No			Pro-Ethnicity		No					
bjective expecte the ope Justifie	eneral Development e indicator target is ed tobe observed by eration's "Fully ed" date rergence (CO)										

### **RESULTS MATRIX**

### **Specific Development Objectives**

Specific Development Objectives Nbr. 1: A conducive regulatory and institutional framework to implement RE/EE technologies in Suriname has been established.

#### Observation:

	Indicator Unit of Measure Baseline Baseline Year 2019 EOP 2022											
1.1	Enhancements to the legal and technical regulatory framework including RE and EE technologies in	# legal and technical	0.00	2011	Р		1.00					
	Suriname, have been proposed and approved.  regulatory proposals  A  0.00											
	Details											
Means	Means of verification: Sector framework											
Obser	Observations: Currently the promotion of RE and EE is not incorporated in the regulatory framework of Suriname and there is no strategy to developthese types of technologies.											
Pro-Ge	Pro-Gender No Pro-Ethnicity No											

Specific Development Objectives Nbr. 2: Selected RET pilots have been implemented for on-grid electricity supply and for rural electrification in the Hinterlands

Observation	۱	
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	Indicator	Unit of Measure	Baseline	Baseline Year		2019	EOP 2022		
2.0	Rural electricity operating costs (US\$/KWh)	US\$/KWh	0.63	2013	Р		0.41		
					Α		0.63		
Details									
Means	Means of verification: e								

Observations: e

Observation:

Pro-GenderNoPro-EthnicityNo

	Indicator	Unit of Measure	Baseline	Baseline Year		2019	EOP 2022
2.1	Rural end-users supplied with sustainable	# persons	0.00	2011	Р		10,280.00
	electricity service from installed RETs				Α		0.00

#### Details

Means of verification: Final evaluation

Observations: Based on 200W installed capacity per rural end-user (1,540kW hydro and 516kW PV).

Pro-Gender No Pro-Ethnicity No

Specific Development Objectives Nbr. 3: Adequate business models and stakeholder skills to successfully implement RETs in Suriname, have been established.

	Indicator	Unit of Measure	Baseline	Baseline Year		2019	EOP 2022
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### **RESULTS MATRIX**

### **Specific Development Objectives**

3.1	Number of on-grid RET projects with technical, social and financial sustainability demonstrated	# projects	0.00	2011	Р	1.00
	social and illiancial sustainability demonstrated				Α	0.00

#### **Details**

Means of verification: Final evaluation

Observations: One or more RET projects developed. At least one project constructed and selling electric energy to the grid.

Pro-Gender No Pro-Ethnicity No

	Indicator	Unit of Measure	Baseline	Baseline Year		2019	EOP 2022
3.2	Number of rural electrification projects with technical, social and financial sustainability	# projects	0.00	2011	Р		3.00
	demonstrated				Α		0.00

#### **Details**

Means of verification: Final evaluation report

Observations: For: (1) community-based and (2) individual PV systems; and (3) small hydro power.

Pro-Gender No Pro-Ethnicity No

### **RESULTS MATRIX**

#### **OUTPUTS: ANNUAL PHYSICAL AND FINANCIAL PROGRESS**

#### Component Nbr. 1 Strengthening of regulatory and institutional framework to implement RE and EE technologies

				PHYSICAL I	PROGRESS	FINANCIAL I	PROGRESS
	Output	Unit of Measure		2021	EOP 2022	2021	EOP 2022
1.1	Country Wind Map of	# wind maps	Р		1		30,000
	Suriname Developed		P(a)	0	1	0	192,130
			Α	0	0	0	0
1.2	Wind measuring stations	# units	Р		6		270,000
	installed		P(a)	6	6	241,425	606,670.15
			Α	6	6	4,586	369,831.15
1.3	Socio-economic information, has been updated to assess the opportunities for RE and EE investments	# studies	Р		1		130,000
			P(a)		1		79,317.99
			Α		1		79,317.99

#### Component Nbr. 2 Demonstration of RE technologies for interconnected grids and for rural electrification

				PHYSICAL	PROGRESS	FINANCIAL I	PROGRESS
	Output	Unit of Measure		2021	EOP 2022	2021	EOP 2022
2.1	Feasibility and detailed	# studies	Р		4		400,000
	engineering studies prepared		P(a)		3		96,759
			Α		3		96,759
2.2	Rural solar-PV projects installed (kW)	kW	Р		16		700,000
			P(a)	0	250	1,036,731	1,867,790
			Α	0	0	321,370	652,429

#### Component Nbr. 3 Strengthening of institutional arrangements, business models and stakeholder skills for the sustainable operation of RE and promotion of EE technologies in Suriname

				PHYSICAL	PROGRESS	FINANCIAL	PROGRESS
	Output	Unit of Measure		2021	EOP 2022	2021	EOP 2022
3.1	Sustainable ownership business and operational models for RET systems in rural areas	# models	Р		3		588,000
	developed		P(a)		2	50,000	257,075
			Α		1	0	57,075
3.2	Awareness raising programmes	# programs	Р		3		145,000
	about RETs and EETs have been developed.		P(a)	0	3	25,000	63,810
			Α	0	2	0	13,810
3.3	Promotional events have been held to disseminate the impacts and benefits of RETs and EETs in Suriname, and additional investments	# events	Р		3		90,000
	leveraged.		P(a)	0	3	2,500	50,126
			Α	0	2	0	45,126

#### Other Cost

In-kind contribution to the Program	Р			3,200,000
	P(a)		25,000	446,129.98
	Α		14,444	435,573.98
Project Management (GEF)	P			200,000
	P(a)		70,934	522,715.6
	Α		21,426	411,899.6
Project Management (MIF) + Admin.	Р			339,889
	P(a)			58,021.72
	Α			58,021.72

#### **Total Cost**

Total Cost	Р			9,392,889	
	P(a)		1,451,590	4,240,545.44	

### **RESULTS MATRIX**

### OUTPUTS: ANNUAL PHYSICAL AND FINANCIAL PROGRESS

## **CHANGES TO THE MATRIX**

No information available for this section

### **RISKS AND PLANNED RESPONSES**

Risk ID	Risk Statu	S	Risk Taxonomy			
	Inactive		Political Environment			
4	Response a	ctions				
1		Management Strategy	Status			
	1.1	MITIGATE	INACTIVE			
Risk ID	Risk Statu	S.	Risk Taxonomy			
	Active		Political Environment			
	Response actions					
		Management Strategy	Status			
2	2.1	AVOID	INACTIVE			
		Management Strategy	Status			
	2.2	MITIGATE	INACTIVE			
Risk ID	Risk Status		Risk Taxonomy			
	Active		Human Resources			
			'			
0	Response a	ctions				
3	3.1	Management Strategy	Status			
		MITIGATE	ACTIVE			
Risk ID	Risk Statu	ls	Risk Taxonomy			
	Active		Human Resources			
	Response a	ctions				
		Management Strategy	Status			
	4.1	MITIGATE	ACTIVE			
			'			
4		Management Strategy	Status			
	4.2	MITIGATE	ACTIVE			
		Management Strategy	Status			

### **RISKS AND PLANNED RESPONSES**

Risk ID	Risk Status		Risk Taxonomy				
	Inactive		Economic and Financial Environment				
	Response act	ions					
5		Management Strategy	Status				
	5.0	-					
Risk ID	Risk Status		Risk Taxonomy				
	Inactive		Legal Environment				
6	Response act	ions					
0	6.0	Management Strategy	Status				
		-					
Risk ID	Risk Status		Risk Taxonomy				
THOR IS	Inactive		Goods, and Services				
	Response act	ions					
7							
	•		Status				
	7.0	Management Strategy	Status				
		Management Strategy	Status				
		Management Strategy					
Risk ID	7.0	Management Strategy	Risk Taxonomy				
	7.0	Management Strategy					
	7.0	Management Strategy	Risk Taxonomy				
Risk ID	7.0	Management Strategy	Risk Taxonomy				
	7.0  Risk Status  Active	Management Strategy	Risk Taxonomy				
Risk ID	7.0  Risk Status  Active	Management Strategy -	Risk Taxonomy Planning				

## **IMPLEMENTATION STATUS AND LEARNING**

Lesson I	_earned -	Cate	egories
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Cost and Budgetary Aspects