Operation Number	RG-G1004	Chief of Operations Validation Date	10/21/21
Year- PMR Cycle	First period Jan-Jun 2021	Division Chief Validation Date	
Last Update	10/05/21	Country Representative Validation Date	
PMR Validation Stage	Validated by Chief of Operations		

Basic Data

Operation Profile

Operation Name	Global Environment Facility (GEF) Grant for the Sustainable Energy Facility (SEF) for the Eastern Caribbean	Loan Number	GRT/FM-15208-RG
Executing Agency	CARIBBEAN DEVELOPMENT BANK	Sector/Subsector	ENERGY-ENERGY INTEGRATION
Team Leader	PRADO, VERONICA	Overall Stage	Disbursing (From eligibility until all the Operations are closed)
Operation Type	Investment Grants	Country	Regional
Lending Instrument		Convergence related Operation(s)	RG-G1009, RG-L1071
Borrower			

Environmental and Social Safeguards

Impacts Category	B13	Was/Were the objective(s) of this operation reformulated?	NO
Safeguard Performance Rating	Partially Satisfactory	Date of approval	

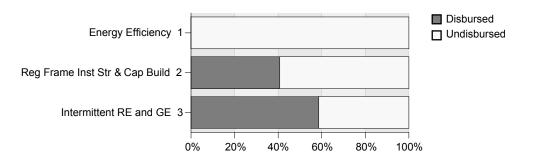
Safeguard Performance Rating - Rationale

While CDB staff are experienced in environmental and social risk management, there is limited geothermal experience. In the case of St. Vincent subproject in decommissioning, the social aspects of the program have been well implemented, albeit slowly, however environmental monitoring had not been fully implemented despite the fact that drilling had been completed. The effort in ensuring the projects within this cohort of operations correct noncompliance issues, as well as project preparation, the majority of projects under this cohort of operations is under preparation, have in many instances been led by IDB rather than CDB. According to the ROP, CDB should take the lead and submit to IDB, rather than vice versa Furthermore, CDB E&S specialists are unable to maintain the pace required in some of the projects, possibly due to lack of sufficient human resources, resulting in delayed reviews of E&S documents in preparation.

Financial Data

Item			Total Cost an	d 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			
RG-G1004	0	3,013,698	0	0	3,013,698	3,013,698	1,855,705.99	61.58%	1,157,992.01			
RG-G1009	0	19,050,000	0	0	19,050,000	19,050,000	19,050,000	100.00%	0			
RG-L1071	20,000,000	20,000,000	29,435,000	0	49,435,000	20,000,000	7,218,524.17	36.09%	12,781,475.83			
Aggregated	20,000,000	42,063,698	29,435,000	0	71,498,698	42,063,698	28,124,230.16	66.86%	13,939,467.84			

Expense Categories by Loan Contract (cumulative values)



RESULTS MATRIX

General Development Objectives

General Development Objectives Nbr. 0: Define impact statement

No

Observation:

ODSCIV	uuon.											
	Indicator	Unit of Measure	Baseline	Baseline Year	Expected Year of		Target					
					Achievement							
0.0	Average electricity tariff for customers in ECC	US\$/KWh	0.33	2015	2026	Р	0.30					
						Α						
				Detai	ls							
Means of verification: Measures the average electricity tariff in the 6 ECC covered by the program.												
Pro-Ge	nder No			Pro-Ethnicity		No						

The General Development bjective indicator target is expected tobe observed by

the operation's "Fully
Justified" date

Justified" date inConvergence (CO)

	Indicator	Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement		Target
0.1	Regional penetration of indigenous renewable energy sources for power generation within the	%	0.00	2016	2026	Р	30.00
	ECC					Α	
				Detail	s		

Means of verification: Measures the average electricity tariff in the 6 ECC covered by the program.

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

RESULTS MATRIX

Specific Development Objectives

Specific Development Objectives Nbr. 0: Reduction in electricity consumption from public lighting sectors with EE projects financed by the program

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
0.0	Electricity saved by EE applications, measures &	GWh/year	0.00	2016	Р	4.00	6.00	11.30	11.30	11.30	11.30	11.30	66.50
	programs				Α	0.00	3.00	3.50	0.00	15.30			21.80

Details

Means of verification: Report from CDB based on utility sales reports

Pro-Gender No Pro-Ethnicity No

Specific Development Objectives Nbr. 1: Reduction in imports of fossil fuels for electricity generation in ECC due to EE projects financed at any stage by the program.

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
1.0	Reduction in imports of fossil fuels for electricity	Thousand	0.00	2016	Р	6.50	9.70	18.30	18.30	18.30	18.30	18.30	107.70
	generation	barrels of oil			Α	0.00	4.90	6.00	0.00	24.30			35.20

Details

Means of verification: Executing Agency (EA)

Observations: Estimation based on efficiency levels and number of retrofitted lamps; to be provided by the Executing Agency (EA) based on information from governments and utilities in ECC. Final calculations to be checked with the utilities and the governments in the ECC (ex-post CBA)

Pro-Gender No Pro-Ethnicity No

Specific Development Objectives Nbr. 2: Greenhouse Gas (GHG) emissions avoided by EE projects financed at any stage by the program

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
2.0	GHG emissions avoided due to EE projects	ktCO2e/yr	0.00	2016	Р	3.00	4.50	8.60	8.60	8.60	8.60	8.60	50.40
					Α	0.00	2.30	3.00	0.00	10.60			

Details

Means of verification: IDB methodology

Observations: IDB estimations made following IDB methodology, based on number of lamps installed, efficiency levels of lamps, and an average conversion factor (ex-post CBA)

Pro-Gender No Pro-Ethnicity No

Specific Development Objectives Nbr. 3: ECC with legal and regulatory frameworks that enable Geothermal Energy (GE) development

Observation:

Indicator	Unit of	Baseline	Baseline	2017	2018	2019	2020	2021	2022	2023	EOP 2023

RESULTS MATRIX

Specific Development Objectives

		Measure		Year									
3.0	# countries that have GE legal and regulatory	# countries	1.00	2015	Р		1.00	1.00					3.00
	frameworks				Α	0.00	0.00	0.00	0.00	0.00			
	Details												
Means	leans of verification: Report from CDB												

Pro-Gender Pro-Ethnicity

Specific Development Objectives Nbr. 4: Women trained in construction, operation and/or maintenance of RE and EE infrastructure and projects Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
4.0	Women trained in the field of SE out of the total	%	0.00	2016	Р								25.00
	number of people trained using Program resources				Α		35.00		0.00	0.00			

Details

Means of verification: Report from CDB

Observations: Reports from the CDB based on information from governments and private project sponsors. Measured as an average of individual GE sub-projects at the end of the program

Pro-Gender **Pro-Ethnicity** No

Specific Development Objectives Nbr. 5: GHG emissions avoided by geothermal projects financed at any stage by the program Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
5.0	GHG emissions avoided due to RE projects	ktCO2e/yr	0.00	2016	Р				310.20	310.20	310.20	310.20	1,240.90
					Α				0.00	0.00			

Details

Means of verification: IDB estimations

Observations: IDB estimations made following IDB methodology, based on installed capacity, electricity generation, and an average conversion factor (ex-post CBA).

Pro-Gender No **Pro-Ethnicity** No

Specific Development Objectives Nbr. 6: Reduction in imports of fossil fuels for electricity generation in ECC with geothermal projects financed at any stage by the program Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
6.0	Reduction in imports of fossil fuels for electricity	Thousand	0.00	2016	Р				662.00	662.00	662.00	662.00	2,648.00
	generation	barrels of oil			Α				0.00	0.00			

RESULTS MATRIX

Specific Development Objectives

Details

Means of verification: IDB estimations

Observations: IDB estimations based on estimated installed capacity and electricity generation to be provided in EA reports based on information from governments and utilities in ECC. Final calculations to be checked with the utilities and the governments in the ECC (ex-post CBA).

Pro-Gender No Pro-Ethnicity No

Specific Development Objectives Nbr. 7: Geothermal power generation capacity installed in projects facilitated or financed at some stage by the program

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
7.0	MW of geothermal capacity	MW	0.00	2016	Р							55.00	55.00
					Α					0.00			

Details

Means of verification: Report from CDB.

Observations: Estimations of expected installed capacity based on quality of resource confirmed once exploration wells are drilled

Pro-Gender No Pro-Ethnicity No

Specific Development Objectives Nbr. 8: Geothermal projects financed at any stage by the program that moved on from early exploration to production drilling or from early exploration or production drilling to construction of plants and/or electricity generation

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
8.0	Number of GE projects financed that moved to the	Number of GE	0.00	2016	Р		1.00	1.00	1.00	1.00			4.00
	following stage of development	projects			Α					0.00			

Details

Means of verification: Reports from the CDB

Observations: Report from CDB with information from ECC and private project sponsors

Pro-Gender No Pro-Ethnicity No

Specific Development Objectives Nbr. 9: Women participate in consultation processes related to GE projects

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
9.0	% of women who participate in consultations	%	0.00	2016	Р								45.00
					Α					0.00			
	Details												

RESULTS MATRIX

Specific Development Objectives

Means of verification: Reports from the CDB

Observations: Reports from the CDB based on information from governments and private project sponsors (Measured as an average of individual GE sub-projects at the end of the program).

Pro-Gender No Pro-Ethnicity No

Specific Development Objectives Nbr. 11: GEF Performance Ratings

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
11.0	Rating of Likelihood of Achieving Project Global Environmental Objective (DO)	#	0.00	2015	Р								
	(Scale: 1 - 6, where 1 = Highly Satisfactory [HS] and 6 = Highly Unsatisfactory [HU])				Α	1.00	1.00	1.00		1.00			

Details

Means of verification: SAPR from CDB

Observations: The Team Leader will establish the corresponding ranking based on the SAPR

Pro-Gender No Pro-Ethnicity No

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
11.2	Rating of Implementation Progress (IP) (Scale: 1 - 6, where 1 = Highly Satisfactory [HS]	#	0.00	2015	P	1.00	1.00	1.00		1.00			
	and 6 = Highly Unsatisfactory [HU])				Α	1.00	1.00	1.00		1.00			

Details

Means of verification: SAPR from CDB

Observations: The Team Leader will establish the corresponding ranking based on the SAPR

Pro-Gender No Pro-Ethnicity No

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	2023	EOP 2023
11.3	Rating of overall Risk that may affect project performance (RISK)	#	0.00	2015	Р								
	(Scale 1 - 4, where 1 = High Risk [H] and 4 = Low Risk [L])				Α	4.00	4.00	4.00		4.00			

Details

Means of verification: SAPR from CDB

Observations: The Team Leader will establish the corresponding ranking based on the SAPR

Pro-Gender No Pro-Ethnicity No

RESULTS MATRIX

OUTPUTS: ANNUAL PHYSICAL AND FINANCIAL PROGRESS

Component Nbr. 1 Component I - Energy Efficiency

				PHYSICAL	PROGRESS	FINANCIAL	PROGRESS
	Output	Unit of Measure		2021	EOP 2023	2021	EOP 2023
1.1	Funding operations provided for EE projects	Number of funding	Р		3		13,000,000
		operations approved by CDB's Board	P(a)	1	5	1,300,000	13,000,000
			Α	0	4	2,500,000	11,350,000

Component Nbr. 2 Component II - Reg. framework, inst. strengthening and capacity building

				PHYSICAL I	PROGRESS	FINANCIAL	PROGRESS
	Output	Unit of Measure		2021	EOP 2023	2021	EOP 2023
2.1	Studies to support energy policy reform, regulation and implementation of renewable energy and energy efficiency projects in the ECC	Number of studies	Р		3		1,942,828.53
		completed	P(a)	1	4	200,000	1,942,828.54
			Α	0	3	1,154,831	1,640,011
2.2	Training and capacity building interventions for the EA, SPVs, and/or government employees	Number of interventions	Р		8		1,032,640.8
		completed	P(a)	1	9	108,820	1,032,640.8
			Α	0	8	353,005	1,168,005

Component Nbr. 3 Component III - Intermittent RE and GE

				PHYSICAL	PROGRESS	FINANCIAL	PROGRESS	
	Output	Unit of Measure		2021	EOP 2023	2021	EOP 2023	
3.1	Funding operations for GE projects	Number of funding	Р		3	6,866,911.76	44,050,000	
		operations approved by CDB's Board	P(a)	1	3	2,000,000	44,050,000	
		Number of loans approved		0	2	0	22,710,998	
3.2	Number of loans for transmission and distribution projects	Number of loans approved	Р		1		10,000,000	
		by CDB's Board		0	1	0	10,000,000	
			Α	0	1	0	8,016,000	
3.3	Funding operations for intermittent RE projects	Number of funding			1		1,024,720.66	
		operations approved by CDB's Board		P(a)	0	2	200,000	1,024,720.66
			Α	0	2	393,000	1,078,000	

Other Cost

Project Management	Р			143,508
	P(a)		47,836	143,508
	Α		0	0
Monitoring and evaluation RG-L1071	P		24,375	305,000
	P(a)		0	305,000
	Α		0	50,000

Total Cost

Total Cost	Р	6,891,286.76	71,498,697.99
	P(a)	3,856,656	71,498,698
	Α	4,400,836	46,013,014

CHANGES TO THE MATRIX

No information available for this section

RISKS AND PLANNED RESPONSES

Risk ID	Risk Statu	s	Risk Taxonomy			
	Active		Technical Design			
			<u> </u>			
	Response a	Response actions				
1		Management Strategy	Status			
	1.1	MITIGATE	ACTIVE			
Risk ID	Risk Statu	.	Risk Taxonomy			
NISK ID	Active	3	Political Environment			
	1300.5		,			
	Response a	Response actions				
2		Management Strategy	Status			
	2.0	-				
			<u>'</u>			
	Active		Technical Design			
2	Response a	Response actions				
2		Management Strategy	Status			
	2.1	MITIGATE	ACTIVE			
Risk ID	Risk Statu	S	Risk Taxonomy			
	Active		Economic and Financial Environment			
3	Response a	Response actions				
3		Management Strategy	Status			
	3.0	-				
	Active		Political Environment			
3	Response a	Response actions				
		Management Strategy	Status			
	3.0	-				
Risk ID	Risk Statu	s	Risk Taxonomy			
	Active		Technical Design			
4						
	Response a	ctions				

RISKS AND PLANNED RESPONSES

Di-I-ID	Dial- Otato	_	Diele Terrer		
Risk ID	Risk Statu		Risk Taxonomy		
		Management Strategy	Status		
	4.0	-			
	Active		Economic and Financial Environment		
	Page and a	Response actions			
4	Response a	Management Strategy	Status		
	4.0	Management Strategy	Status		
	4.0	-			
Risk ID	Risk Statu	•	Risk Taxonomy		
VISK ID	Active	5	Technical Design		
	Active		reclinical Design		
	Response a	Response actions			
5		Management Strategy	Status		
	5.0	-			
Risk ID	Risk Status		Risk Taxonomy		
	Active		Institutional Environment		
			<u>'</u>		
6	Response actions				
0		Management Strategy	Status		
	6.1	MITIGATE	ACTIVE		
	Active		Technical Design		
6	Response a	ctions			
0		Management Strategy	Status		
	6.0	-			
Risk ID	Risk Statu	S	Risk Taxonomy		
	Active		Institutional Environment		
7	Response a	ctions			
,		Management Strategy	Status		
	7.0	-			

RISKS AND PLANNED RESPONSES

Risk ID	Risk Statu	s	Risk Taxonomy	
		Management Strategy	Status	
	7.1	MITIGATE	ACTIVE	
Risk ID	Risk Status		Risk Taxonomy	
	Active		Institutional Environment	
8	Response a	ctions		
6		Management Strategy	Status	
	8.0	-		
	Active Environmental and Social Safeguards		Environmental and Social Safeguards	
8	Response a			
		Management Strategy	Status	
	8.1	MITIGATE	ACTIVE	
Risk ID	Risk Status		Risk Taxonomy	
	Active		Environmental and Social Safeguards	
9	Response a	ctions		
9		Management Strategy	Status	
	9.1	MITIGATE	ACTIVE	

IMPLEMENTATION STATUS AND LEARNING

Lesson Learned - Categories

Others - Dimensions Related to Public Processes/ Actors