

PMR Public Report

Operation Number	RG-G1004	Chief of Operations Validation Date	04/12/21
Year- PMR Cycle	Second period Jan-Dec 2020	Division Chief Validation Date	04/28/21
Last Update	03/29/21	Country Representative Validation Date	05/07/21
PMR Validation Stage	Validated by Representative		

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			

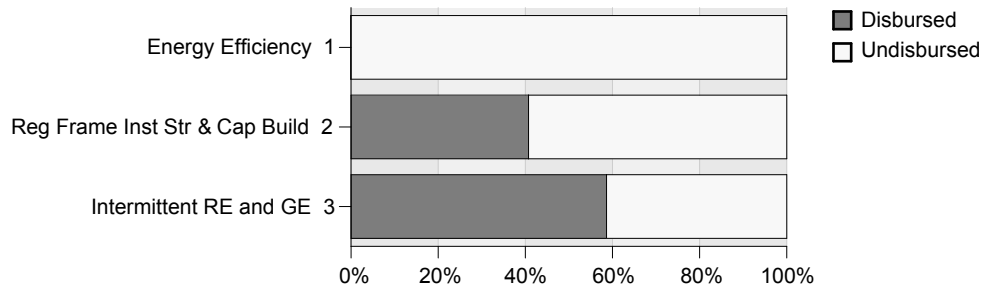
Environmental and Social Safeguards

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 execution), 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 has been completed. The effort in ensuring the projects correct noncompliance issues, as well as project 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 for 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 and Source					Available Funds (US\$)			
	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)



Please note that inactive indicators and outputs are not displayed; totals in the actual cost table may not match the sum of the cost of the outputs displayed, due to the cost of inactive outputs.

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General Development Objectives

General Development Objectives Nbr. 0: Define impact statement

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement		Target
0.0	Average electricity tariff for customers in ECC	US\$/KWh	0.33	2015	2026	P	0.30
						A	

Details

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 to be observed by
the operation's "Fully
Justified" date
in Convergence (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 ECC	%	0.00	2016	2026	P	30.00
						A	

Details

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 to be observed by
the operation's "Fully
Justified" date
in Convergence (CO)

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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 & programs	GWh/year	0.00	2016	P	4.00	6.00	11.30	11.30	11.30	11.30	11.30	66.50
					A	0.00	3.00	3.50	0.00				6.50
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 generation	Thousand barrels of oil	0.00	2016	P	6.50	9.70	18.30	18.30	18.30	18.30	18.30	107.70
					A	0.00	4.90	6.00	0.00				10.90
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	P	3.00	4.50	8.60	8.60	8.60	8.60	8.60	50.40
					A	0.00	2.30	3.00	0.00				
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
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Specific Development Objectives

		Measure		Year									
3.0	# countries that have GE legal and regulatory frameworks	# countries	1.00	2015	P		1.00	1.00					3.00
					A	0.00	0.00	0.00	0.00				
Details													
Means of verification: Report from CDB													
Pro-Gender				No	Pro-Ethnicity				No				

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 number of people trained using Program resources	%	0.00	2016	P								25.00
					A		35.00		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				No	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	P				310.20	310.20	310.20	310.20	1,240.90
					A				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 generation	Thousand barrels of oil	0.00	2016	P				662.00	662.00	662.00	662.00	2,648.00
					A				0.00				

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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	P							55.00	55.00
					A								
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 following stage of development	Number of GE projects	0.00	2016	P		1.00	1.00	1.00	1.00			4.00
					A								
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	P								45.00
					A								
Details													

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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) (Scale: 1 - 6, where 1 = Highly Satisfactory [HS] and 6 = Highly Unsatisfactory [HU])	#	0.00	2015	P								
					A	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] and 6 = Highly Unsatisfactory [HU])	#	0.00	2015	P								
					A	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) (Scale 1 - 4, where 1 = High Risk [H] and 4 = Low Risk [L])	#	0.00	2015	P								
					A	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

	Output	Unit of Measure		PHYSICAL PROGRESS		FINANCIAL PROGRESS	
				2020	EOP 2023	2020	EOP 2023
1.1	Funding operations provided for EE projects	Number of funding operations a	P		3	360,000	13,000,000
			P(a)	0	5	500,000	13,000,000
			A	0	4	4,140,000	8,850,000

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

	Output	Unit of Measure		PHYSICAL PROGRESS		FINANCIAL PROGRESS	
				2020	EOP 2023	2020	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 completed	P		3		1,942,828.53
			P(a)	0	4	200,000	1,942,828.54
			A	0	3	50,000	485,180
2.2	Training and capacity building interventions for the EA, SPVs, and/or government employees	Number of interventions comple	P	2	8	258,160.2	1,032,640.8
			P(a)	0	9	50,000	1,032,640.8
			A	3	8	425,000	815,000

Component Nbr. 3 Component III - Intermittent RE and GE

	Output	Unit of Measure		PHYSICAL PROGRESS		FINANCIAL PROGRESS	
				2020	EOP 2023	2020	EOP 2023
3.1	Funding operations for GE projects	Number of funding operations a	P		3	8,188,970.59	44,050,000
			P(a)	0	3	5,000,000	44,050,000
			A	0	2	3,550,000	22,710,998
3.2	Number of loans for transmission and distribution projects	Number of loans approved by CD	P	1	1	5,000,000	10,000,000
			P(a)	0	1	0	10,000,000
			A	0	1	0	8,016,000
3.3	Funding operations for intermittent RE projects	Number of funding operations a	P		1		1,024,720.66
			P(a)	0	2	300,000	1,024,720.66
			A	1	2	490,000	685,000

Other Cost

Project Management		P			28,701.6	143,508
		P(a)			0	143,508
		A			0	0
Monitoring and evaluation RG-L1071		P			94,375	305,000
		P(a)			60,000	305,000
		A			50,000	50,000

Total Cost

Total Cost		P			13,930,207.39	71,498,697.99
		P(a)			6,110,000	71,498,698
		A			8,705,000	41,612,178

CHANGES TO THE MATRIX

Section	Name	Type of Change	Subtype	Modified By	Entered in the System
Output	Funding operations for GE projects	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	JGARCI AF	03/29/2021
			Modify Financial Historical Actual	JGARCI AF	03/29/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	CHRISTIAANG	03/29/2021
	Funding operations for intermittent RE projects	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	JGARCI AF	03/29/2021
			Modify Financial Historical Actual	JGARCI AF	03/29/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	JGARCI AF	03/29/2021
	Funding operations provided for EE projects	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	JGARCI AF	03/29/2021
			Modify Financial Historical Actual	JGARCI AF	03/29/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	CHRISTIAANG	03/29/2021
	Number of loans for transmission and distribution projects	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	JGARCI AF	03/29/2021
			Modify Financial Historical Actual	JGARCI AF	03/29/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	JGARCI AF	03/29/2021
	Studies to support energy policy reform, regulation and implementation of renewable energy and energy efficiency projects in the ECC	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	JGARCI AF	03/29/2021
			Modify Financial Historical Actual	JGARCI AF	03/29/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	CHRISTIAANG	03/29/2021
	Training and capacity building interventions for the EA, SPVs, and/or government employees	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	JGARCI AF	03/29/2021
			Modify Financial Historical Actual	JGARCI AF	03/29/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	CHRISTIAANG	03/29/2021

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IMPLEMENTATION STATUS AND LEARNING

Lesson Learned - Categories

Environmental and Social Factors