

# PMR Public Report

<b>Operation Number</b>	BA-L1012	<b>Chief of Operations Validation Date</b>	05/17/21
<b>Year- PMR Cycle</b>	Second period Jan-Dec 2020	<b>Division Chief Validation Date</b>	05/17/21
<b>Last Update</b>	05/17/21	<b>Country Representative Validation Date</b>	05/17/21
<b>PMR Validation Stage</b>	Validated by Representative		

## Basic Data

### Operation Profile

<b>Operation Name</b>	Deployment of Cleaner Fuels and Renewable Energies in Barbados	<b>Loan Number</b>	3843/OC-BA
<b>Executing Agency</b>	NATIONAL PETROLEUM CORPORATION	<b>Sector/Subsector</b>	ENERGY-ENERGY SECTOR REHABILITATION AND EFFICIENCY
<b>Team Leader</b>	PRADO, VERONICA	<b>Overall Stage</b>	Disbursing (From eligibility until all the Operations are closed)
<b>Operation Type</b>	Loan Operation	<b>Country</b>	Barbados
<b>Lending Instrument</b>	Investment Loan	<b>Convergence related Operation(s)</b>	
<b>Borrower</b>	BARBADOS		

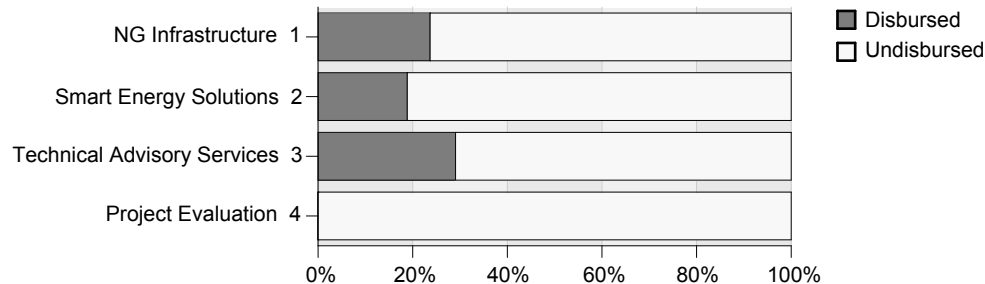
## Environmental and Social Safeguards

<b>Impacts Category</b>	B	<b>Was/Were the objective(s) of this operation reformulated?</b>	NO
<b>Safeguard Performance Rating</b>	Satisfactory	<b>Date of approval</b>	
<b>Safeguard Performance Rating - Rationale</b>	Currently the project focused on the initial set up of renewable energy sources and overall resource efficiencies building, due to focus of Barbados that is shifting away from LNG. Minor upgrades to local LNG lines have been performed. Additional focus and development of renewable energy (wind and solar) might be included as studies. These studies should ensure proper assessment all environmental and social impacts, especially if designed offshore. All impacts of the projects so far have been properly mitigated		

## 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
BA-L1012	34,000,000	34,000,000	0	0	34,000,000	34,000,000	12,632,493.58	37.15%	21,367,506.42
<b>Aggregated</b>	<b>34,000,000</b>	<b>34,000,000</b>	<b>0</b>	<b>0</b>	<b>34,000,000</b>	<b>34,000,000</b>	<b>12,632,493.58</b>	<b>37.15%</b>	<b>21,367,506.42</b>

## 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.

## PMR Public Report

### RESULTS MATRIX

#### General Development Objectives

**General Development Objectives Nbr. 0:** Expected long-term impacts include a reduction in the electricity tariff that contributes to one of the goals in the Barbados Country Strategy and GHG emissions reductions from power generation.

**Observation:**

	Indicator	Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement		Target
0.0	Total GHG emissions resulting from power generation in Barbados	Million tons CO2 equivalent t/year	2.00	2015	2023	P	1.50
						A	

#### Details

**Means of verification:** Reports Intended Nationally Determined Contribution (INDC) compliance

<b>Pro-Gender</b>	No	<b>Pro-Ethnicity</b>	No
<b>The General Development objective indicator target is expected to be observed by the operation's "Fully Justified" date in Convergence (CO)</b>			

	Indicator	Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement		Target
0.1	Average national electricity tariff in Barbados	US\$/KWh	0.28	2015	2023	P	0.25
						A	

#### Details

**Means of verification:** Reports from Barbados Light and Power (BL&P)

<b>Pro-Gender</b>	No	<b>Pro-Ethnicity</b>	No
<b>The General Development objective indicator target is expected to be observed by the operation's "Fully Justified" date in Convergence (CO)</b>			

## PMR Public Report

### RESULTS MATRIX

#### Specific Development Objectives

**Specific Development Objectives Nbr. 0:** Expected Result 1: Ensure Natural gas service continuity

**Observation:**

Indicator		Unit of Measure	Baseline	Baseline Year		2018	2019	2020	2021	2022	2023	EOP 2023
0.0	Annual Natural Gas sales by NPC to residential, commercial and industrial clients	Million cubic feet (mmcf)	511.00	2015	P	511.00	511.00	538.00	575.00	600.00	600.00	600.00
					A	511.00						
Details												
Means of verification: Semi-annual reports (SAR) from NPC/BNCOL.												
Pro-Gender		No			Pro-Ethnicity			No				

**Specific Development Objectives Nbr. 1:** Expected Result 2: Increase the number of LNG suppliers to Barbados to enhance energy security

**Observation:**

Indicator		Unit of Measure	Baseline	Baseline Year		2018	2019	2020	2021	2022	2023	EOP 2023
1.0	Number of international/regional Liquefied Natural Gas (LNG) suppliers to Barbados	# of LNG suppliers	1.00	2015	P	2.00	2.00	2.00	2.00	2.00	2.00	2.00
					A	1.00						
Details												
Means of verification: Semi-annual reports (SAR) from NPC/BNCOL.												
Pro-Gender		No	Pro-Ethnicity		No							

**Specific Development Objectives Nbr. 2:** Expected Result 3: Reduce CO2 emission reductions from NPC/BNOCL operational and administrative facilities

**Observation:**

Indicator		Unit of Measure	Baseline	Baseline Year		2018	2019	2020	2021	2022	2023	EOP 2023
2.0	Annual CO2 emission reductions from implementing smart energy solutions in NPC and/or BNOCL operational and administrative facilities	Tons CO2 equivalent / year	0.00	2015	P	0.00	0.00	0.00	1,500.00	1,500.00	6,000.00	9,000.00
					A	0.00						
Details												
Means of verification: Semi-annual reports (SAR) from NPC/BNCOL.												
Observations: Calculated based on EE saved, RE installed and accepted carbon emission reduction methodologies. Smart energy solutions includes RE and EE.												
Pro-Gender		No			Pro-Ethnicity			No				

**Specific Development Objectives Nbr. 3:** Expected Result 4: Increased operational efficiency in NG transmission and distribution

**Observation:**

Indicator	Unit of Measure	Baseline	Baseline Year		2018	2019	2020	2021	2022	2023	EOP 2023
3.0	NPC's Annual Operational cost per customer	US\$/ customer	5.20	2015	P	5.20				4.30	4.30

## PMR Public Report

### RESULTS MATRIX

#### Specific Development Objectives

3.0	NPC's Annual Operational cost per customer	US\$/ customer	5.20	2015	A	5.20						
Details												
<b>Means of verification:</b> Semi-annual reports (SAR) from NPC/BNCOL.												
<b>Observations:</b> The operational cost per customer will take into account only transmission and distribution of NG which is NPC's main responsibility												
<b>Pro-Gender</b>		No			<b>Pro-Ethnicity</b>		No					

**Specific Development Objectives Nbr. 4:** Expected Result 5: Increase private sector participation to develop an LNG project

**Observation:**

Indicator		Unit of Measure	Baseline	Baseline Year		2018	2019	2020	2021	2022	2023	EOP 2023
4.0	Number of private sector partners with a contract awarded to implement the Small LNG Plant	# of private sector partners	0.00	2015	P	0.00	1.00	0.00	0.00	0.00	0.00	1.00
					A	0.00						
Details												
Means of verification: Contract with winning proponent which will be attached to the semi-annual reports from NPC and BNOCL												
Pro-Gender		No					Pro-Ethnicity		No			

## RESULTS MATRIX

## OUTPUTS: ANNUAL PHYSICAL AND FINANCIAL PROGRESS

## Component Nbr. 1 Component 1: Natural Gas Infrastructure

	Output	Unit of Measure		PHYSICAL PROGRESS		FINANCIAL PROGRESS	
				2020	EOP 2023	2020	EOP 2023
1.1	Monitoring and control systems upgraded/replaced	# of systems	P	1	7	1,909,300	6,241,431.5
			P(a)	1	3	1,071,551.68	4,218,233.88
			A	1	1	988,136.88	2,293,024.88
1.2	Pipelines for transmission and distribution replaced, realigned and/or installed	Km of pipeline	P	8.2	10	2,316,743.94	8,286,400.2
			P(a)	0	12.5	239,860	7,135,610.78
			A	0	0	19,971.78	19,971.78
1.3	Natural Gas distribution stations upgraded	# of stations	P	0	1	150,000	250,000
			P(a)	0	1	0	900,000
			A	0	0	0	0
1.4	On-road Natural Gas distribution fleet acquired or modernized	# of vehicles	P	12	12		1,500,000
			P(a)	4	22	176,130.8	830,566.27
			A	0	22	245,522.27	741,718.27

## Component Nbr. 2 Component 2: Smart Energy Solutions

	Output	Unit of Measure		PHYSICAL PROGRESS		FINANCIAL PROGRESS	
				2020	EOP 2023	2020	EOP 2023
2.1	RE capacity installed in NPC/BNOCL/newly created entity facilities	MW	P	0	1,150	1,675,544.34	4,704,826.05
			P(a)	3,500	9,100	2,500,000	15,253,179.93
			A	820	820	1,256,993.93	3,068,110.93
2.2	EE and/or RE equipment installed in NPC and/or BNOCL or newly created entity's operational and administrative facilities	Binary (yes/no)	P	0	1	1,295,000	1,360,000
			P(a)	0	1	0	200,000
			A	0	0	0	0
2.3	Technical Feasibility Study developed for Wind facilities in Barbados	# of Studies	P		0		0
			P(a)		1		551,274.83
			A	0	0	110,254.95	110,254.95

## Component Nbr. 3 Component 3: Technical Advisory Services

	Output	Unit of Measure		PHYSICAL PROGRESS		FINANCIAL PROGRESS	
				2020	EOP 2023	2020	EOP 2023
3.1	Studies developed to improve NPC and/or BNOCL or newly created entity's corporate governance, environmental, legal and regulatory functions, quality management systems, and information technology	# of studies	P	1	4	225,000	1,223,000
			P(a)	1	4	200,000	896,913.35
			A	1	1	76,012.35	276,012.35
3.2	NPC and/or BNOCL or newly created entity personnel trained in technical and management areas to support Natural Gas expansion	# of persons	P	0	17		150,000
			P(a)	0	17	0	50,000
			A	0	0	0	0

## Other Cost

	Program Management, Monitoring and Evaluation	P			568,854.01	2,523,083.39
		P(a)			469,357.04	3,964,220.96
		A			451,327.63	1,595,382.63

## Total Cost

	Total Cost	P			14,661,526.14	33,594,203.09
		P(a)			4,656,899.52	34,000,000
		A			3,148,219.79	8,104,475.79

## CHANGES TO THE MATRIX

Section	Name	Type of Change	Subtype	Modified By	Entered in the System
Output	EE and/or RE equipment installed in NPC and/or BNOCL or newly created entity's operational and administrative facilities	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	VPRADO	05/12/2021
	Monitoring and control systems upgraded/replaced	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	VPRADO	05/12/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	VPRADO	03/29/2021
			Modify Physical Historical Actual	VPRADO	03/29/2021
	NPC and/or BNOCL or newly created entity personnel trained in technical and management areas to support Natural Gas expansion	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	VPRADO	03/29/2021
			Modify Unit of Measure	VPRADO	03/29/2021
	Natural Gas distribution stations upgraded	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	VPRADO	05/12/2021
		Modify contribution to CRF Indicator	Flag contribution to CRF indicator	VPRADO	04/09/2021
	On-road Natural Gas distribution fleet acquired or modernized	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	VPRADO	05/12/2021
			Modify Physical Historical Actual	VPRADO	03/29/2021
	Pipelines for transmission and distribution replaced, realigned and/or installed	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	VPRADO	05/12/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	VPRADO	03/29/2021
		Modify contribution to CRF Indicator	Flag contribution to CRF indicator	VPRADO	04/09/2021
	RE capacity installed in NPC/BNOCL/newly created entity facilities	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	VPRADO	05/12/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	VPRADO	03/29/2021
		Modify contribution to CRF Indicator	Flag contribution to CRF indicator	VPRADO	04/09/2021
	Small LNG Plant constructed at the Port	Modify Output	Inactivate Output	VPRADO	03/29/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	VPRADO	03/29/2021
	Studies developed to improve NPC and/or BNOCL or newly created entity's corporate governance, environmental, legal and regulatory functions, quality management systems, and information technology	Modify Output	Modify Financial EOP P(a) value - caused by a change in the Financial P(a).	VPRADO	05/12/2021
			Modify Physical EOP P(a) value - caused by a change in the Physical P(a).	VPRADO	05/12/2021
	Technical Feasibility Study developed for Wind facilities in Barbados	Create Output	N/A	VPRADO	03/29/2021

# PMR Public Report

## IMPLEMENTATION STATUS AND LEARNING

Lesson Learned - Categories
Intra/Inter Coordination
Others - Organizational and Managerial Dimensions
Project Management Capacity