

PMR Public Report

| | | | |
|----------------------|-----------------------------|--|----------|
| Operation Number | BA-L1025 | Chief of Operations Validation Date | 04/06/22 |
| Year- PMR Cycle | Second period Jan-Dec 2021 | Division Chief Validation Date | 04/24/22 |
| Last Update | 04/05/22 | Country Representative Validation Date | 04/25/22 |
| PMR Validation Stage | Validated by Representative | | |

Basic Data

Operation Profile

| | | | |
|--------------------|---|----------------------------------|---|
| Operation Name | Public Sector Smart Energy (PSSE) Program | Loan Number | 2748/OC-BA |
| Executing Agency | INTER-AMERICAN DEVELOPMENT BANK | Sector/Subsector | ENERGY-ENERGY EFFICIENCY AND RENEWABLE ENERGY IN END USE |
| Team Leader | ECHEVERRIA, CARLOS BLADIMIR | Overall Stage | Disbursing (From eligibility until all the Operations are closed) |
| Operation Type | Loan Operation | Country | Barbados |
| Lending Instrument | Investment Loan | Convergence related Operation(s) | BA-X1003 |
| Borrower | BARBADOS | | |

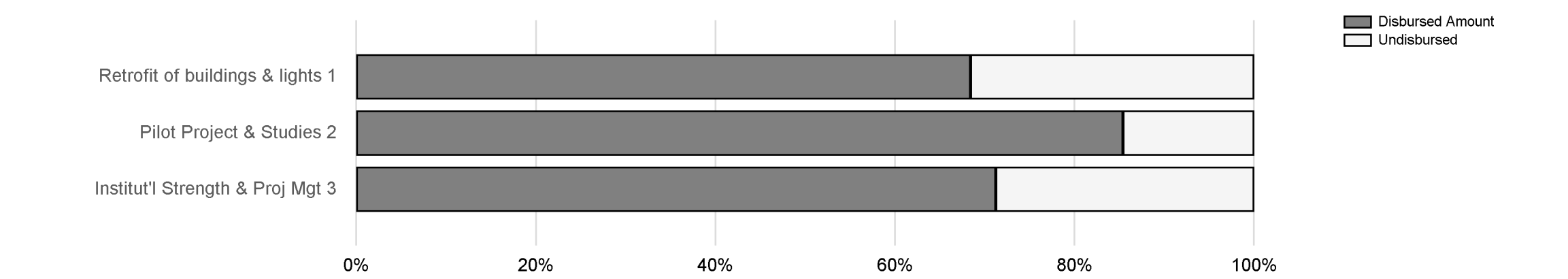
Environmental and Social Safeguards

| | | | |
|--|---|---|----|
| Impacts Category | A | Was/Were the objective(s) of this operation reformulated? | NO |
| Safeguard Performance Rating | Partially Satisfactory | Date of approval | |
| Safeguard Performance Rating - Rationale | Based on the current stage of the operation, the EA complied with all requirements, and it is preparing with IDB support the next steps (pilot studies) to ensure compliance with IDB Policies. The PEU contracted authorized Contractor/Subcontractor to perform the management of the hazardous waste of the retrofit buildings and Air Condition replacements. Evidence of manifest of final disposal and reports are pending to be provided by the PEU to verify the information, and this has driven the performance rating to Partially Satisfactory. | | |

Financial Data

| | Total Cost and Source | | | | | Available Funds (US\$) | | | |
|------------|-----------------------|-------------|-------------------|------------------------|---------------------|------------------------|----------------------|-------------|--------------------|
| Operations | Original IDB | Current IDB | Local Counterpart | Co-Financing / Country | Total Original Cost | Current IDB | Disb. Amount to Date | % Disbursed | Undisbursed Amount |
| BA-L1025 | 17,000,000 | 17,000,000 | 0 | 7,664,000 | 24,664,000 | 17,000,000 | 13,864,863.92 | 81.56% | 3,135,136.08 |
| BA-X1003 | 7,626,493 | 7,029,515 | 0 | 0 | 5,810,000 | 7,029,515 | 5,476,630.76 | 77.91% | 1,552,884.24 |
| Aggregated | 24,626,493 | 24,029,515 | 0 | 7,664,000 | 30,474,000 | 24,029,515 | 19,341,494.68 | 80.49% | 4,688,020.32 |

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.

| RESULTS MATRIX | | | | | | | |
|---|---|-----------------|----------|---------------|------------------------------|----------|------------|
| General Development Objectives | | | | | | | |
| General Development Objectives Nbr. 1: PSSE Financial savings cumulative to date (real 2012 US\$). | | | | | | | |
| Observation: | | | | | | | |
| | Indicator | Unit of Measure | Baseline | Baseline Year | Expected Year of Achievement | EOP 2023 | |
| 1.1 | PSSE Financial savings cumulative to date (real 2012 US\$). | US\$ | 0 | 2012 | 2021 | P | 11,284,963 |
| | | | | | | A | - |
| Details | | | | | | | |

Means of Verification: Power consupction Information provided by the Government and by the utility (BL&P)

Observations:

The General Development Objective indicator target is expected to be observed by the operation's "Fully Justified" date in Convergence (CO): No

| | | | | | |
|------------|----|---------------|----|---------------|--|
| Pro-Gender | No | Pro-Ethnicity | No | CRF indicator | |
| | | | | | |

General Development Objectives Nbr. 2: Avoided CO2 emissions by the PSSE Program (cumulative to date).

| Observation: | | | | | | | |
|--------------|---|-----------------|----------|---------------|------------------------------|----------|--------|
| Indicator | | Unit of Measure | Baseline | Baseline Year | Expected Year of Achievement | EOP 2023 | |
| 2.1 | Avoided CO2 emissions by the PSSE Program (cumulative to date). | tCO2 | 0 | 2012 | 2021 | P | 32,528 |
| | | | | | | A | - |
| Details | | | | | | | |

Means of Verification: Reports prepared by Government of Barbados - Energy Division

Observations:

The General Development Objective indicator target is expected to be observed by the operation's "Fully Justified" date in Convergence (CO): No

| | | | | | |
|------------|----|---------------|----|---------------|--|
| Pro-Gender | No | Pro-Ethnicity | No | CRF indicator | |
| | | | | | |

RESULTS MATRIX

Specific Development Objectives

Specific Development Objectives Nbr. 1: RE capacity installed in government buildings

Observation:

| Indicator | | Unit of Measure | Baseline | Baseline Year | | 2018 | 2020 | 2021 | 2023 |
|-----------|--|-----------------|----------|---------------|---|------|------|------|------|
| 1.1 | Electricity Generated from Solar PV Systems (MWh/year, MWh to date generated). | MWh | 0 | 2012 | P | - | - | - | - |
| | | | | | A | - | - | - | - |

Details

Means of Verification: Reports prepared by Government of Barbados- Energy Division

Observations: Assuming an output of 1,700/kW/year for solar PV. Note: this includes the 50kW PV system installed for charging the Electric Vehicles in Component 2.

Evaluation Methodology: -

| | | | | | |
|------------|----|---------------|----|---------------|--|
| Pro-Gender | No | Pro-Ethnicity | No | CRF indicator | |
| | | | | | |

Specific Development Objectives Nbr. 2: Energy saving with EE technologies in public lighting and buildings

Observation:

| Indicator | | Unit of Measure | Baseline | Baseline Year | | 2018 | 2020 | 2021 | 2023 |
|-----------|--|-----------------|----------|---------------|---|------|------|------|------|
| 2.1 | Electricity Saved through retrofits (energy efficient public lights and energy efficient equipment in public buildings) (MWh/year, MWh to date saved). | MWh | 0 | 2012 | P | - | - | - | - |
| | | | | | A | - | - | - | - |

Details

Means of Verification: Reports prepared by Government of Barbados Energy Division

Observations:

Evaluation Methodology: -

| | | | | | |
|------------|----|---------------|----|---------------|--|
| Pro-Gender | No | Pro-Ethnicity | No | CRF indicator | |
| | | | | | |

Specific Development Objectives Nbr. 3: Fossil Fuels Saved from the implementation of the pilot projects (barrels of oil equivalent).

Observation:

| Indicator | | Unit of Measure | Baseline | Baseline Year | | 2018 | 2020 | 2021 | 2023 |
|-----------|---|-----------------|----------|---------------|---|------|------|------|------|
| 3.1 | Fossil Fuels Saved from the implementation of the pilot projects (barrels of oil equivalent). | barrels of oil | 0 | 2012 | P | - | - | - | - |
| | | | | | A | - | - | - | - |

Details

Means of Verification: Reports prepared by Government of Barbados - Energy Division

Observations:

Evaluation Methodology: -

| | | | | | |
|------------|----|---------------|----|---------------|--|
| Pro-Gender | No | Pro-Ethnicity | No | CRF indicator | |
| | | | | | |

| EOP 2023 |
|----------|
| 6,073 |
| - |

| EOP 2023 |
|----------|
| 28,608 |
| - |

| EOP 2023 |
|----------|
| 240 |
| - |

Specific Development Objectives Nbr. 4: public awareness increased in public sector for RE and EE

Observation:

| | Indicator | Unit of Measure | Baseline | Baseline Year | | 2018 | 2020 | 2021 | 2023 |
|-----|---|-----------------|----------|---------------|---|------|------|------|------|
| 4.1 | Percentage of survey respondents participating at events that report high awareness and support of sustainable energy practices (Number of respondents that answered ?high awareness and support of sustainable energy?/ Total number of survey res | % | 0 | 2012 | P | - | - | - | - |
| | | | | | A | - | - | - | - |

Details

Means of Verification: Reports prepared by Government of Barbados - Energy Division

Observations:

Evaluation Methodology: -

| | | | | | |
|------------|----|---------------|----|---------------|--|
| Pro-Gender | No | Pro-Ethnicity | No | CRF indicator | |
| | | | | | |

| EOP 2023 |
|----------|
| 80 |
| - |

RESULTS MATRIX

OUTPUTS: ANNUAL PHYSICAL AND FINANCIAL PROGRESS

Component Nbr. 1 RE and EE in public buildings

| | | | | PHYSICAL PROGRESS | | FINANCIAL PROGRESS | |
|------|--|-----------------|-------|-------------------|----------|--------------------|--------------|
| | Output | Unit of Measure | | 2021 | EOP 2023 | 2021 | EOP 2023 |
| 1.01 | Streetlight installation completed | % | P | - | 85 | - | 9,977,800 |
| | | | P (a) | 2 | 88 | - | 7,450,418.05 |
| | | | A | 5 | 88 | - | 7,450,418.05 |
| 1.02 | Number of public buildings retrofitted with EE | Buildings | P | - | 12 | - | 4,150,000 |
| | | | P (a) | 14 | 14 | 2,916,049 | 2,447,464.24 |
| | | | A | - | - | 604,527 | 604,527 |
| 1.03 | PV in Public Buildings Installed | MW | P | - | 1.19 | - | 5,500,000 |
| | | | P (a) | 1.22 | 4.09 | 964,809 | 6,732,632.49 |
| | | | A | 0.68 | 3.45 | 47,502 | 5,815,326.49 |

Component Nbr. 2 Pilot projects

| | | | | PHYSICAL PROGRESS | | FINANCIAL PROGRESS | |
|------|--|-------------------|-------|-------------------|----------|--------------------|-------------|
| | Output | Unit of Measure | | 2021 | EOP 2023 | 2021 | EOP 2023 |
| 2.01 | Public Electric Vehicles with Solar PV installed and pilot completed | Electric vehicles | P | - | 8 | - | 300,000 |
| | | | P (a) | - | 10 | 443,094 | 1,201,007.4 |
| | | | A | - | 10 | 419,525 | 1,186,919.4 |
| 2.02 | Ocean studies completed | Studies | P | - | 1 | - | 1,000,000 |
| | | | P (a) | 1 | 1 | 723,458 | 977,484.09 |
| | | | A | 1 | 1 | 723,278 | 977,304.09 |

Component Nbr. 3 capacity building

| | | | | PHYSICAL PROGRESS | | FINANCIAL PROGRESS | |
|------|---|------------------|-------|-------------------|----------|--------------------|--------------|
| | Output | Unit of Measure | | 2021 | EOP 2023 | 2021 | EOP 2023 |
| 3.01 | Capacity Building training/activities completed | numbr of people | P | - | - | - | 1,395,000 |
| | | | P (a) | 20 | 509 | 935,335.01 | 1,162,244.22 |
| | | | A | 446 | 459 | 389,281 | 889,130.2 |
| 3.02 | Public awareness events completed | number of people | P | - | 100 | - | 305,000 |
| | | | P (a) | 50 | 454 | 115,112.44 | 474,922.5 |
| | | | A | 187 | 454 | 115,112.51 | 288,922.51 |
| 3.03 | Monitoring and evaluation activities completed | activities | P | - | 4 | - | 500,000 |
| | | | P (a) | 2 | 4 | 139,464 | 517,879 |
| | | | A | - | 4 | 32,620 | 371,035 |
| 3.04 | Number of Jobs created in ETD for implementing the PSSE Program | Positions | P | - | 4 | - | 1,153,000 |
| | | | P (a) | - | 9 | 134,252.15 | 2,330,315.68 |
| | | | A | - | 9 | 106,532.35 | 1,786,559.09 |

| Other Cost | | | | |
|------------|------------------------------|-------|--------------|---------------|
| | Administrative fees expended | P | | 383,200 |
| | | P (a) | | 383,200 |
| | | A | 0 | 383,200 |
| Total Cost | | | | |
| | Total Cost | P | | 24,664,000 |
| | | P (a) | 6,371,573.6 | 23,677,567.67 |
| | | A | 2,438,377.86 | 19,753,341.83 |

CHANGES TO THE MATRIX

| Section | Name | Type of Change | Sub type | Modified By | Entered in System |
|---------|--|--------------------------------------|---|-------------|-------------------|
| Output | Capacity Building training/activities completed | Modify Output | Modify Financial EOP P(a) value - caused by a change in the Financial P(a). | CARLOSEC | 3/17/2022 |
| | | | Modify Physical EOP P(a) value - caused by a change in the Physical P(a). | CARLOSEC | 3/21/2022 |
| | Monitoring and evaluation activities completed | Modify Output | Modify Financial EOP P(a) value - caused by a change in the Financial P(a). | CARLOSEC | 3/17/2022 |
| | | | Modify Physical EOP P(a) value - caused by a change in the Physical P(a). | CARLOSEC | 3/17/2022 |
| | Number of Jobs created in ETD for implementing the PSSE Program | Modify Output | Modify Financial EOP P(a) value - caused by a change in the Financial P(a). | CARLOSEC | 3/17/2022 |
| | Number of public buildings retrofitted with EE | Modify Output | Modify Financial EOP P(a) value - caused by a change in the Financial P(a). | CARLOSEC | 3/17/2022 |
| | Public awareness events completed | Modify Output | Modify Financial EOP P(a) value - caused by a change in the Financial P(a). | CARLOSEC | 3/17/2022 |
| | | | Modify Physical EOP P(a) value - caused by a change in the Physical P(a). | CARLOSEC | 3/21/2022 |
| | Public Electric Vehicles with Solar PV installed and pilot completed | Modify Output | Modify Financial EOP P(a) value - caused by a change in the Financial P(a). | CARLOSEC | 3/17/2022 |
| | | | Modify Physical EOP P(a) value - caused by a change in the Physical P(a). | CARLOSEC | 3/17/2022 |
| | PV in Public Buildings Installed | Modify contribution to CRF Indicator | Flag contribution to CRF indicator | MYEPEZ | 4/5/2022 |
| | | Modify Output | Modify Financial EOP P(a) value - caused by a change in the Financial P(a). | CARLOSEC | 3/17/2022 |
| | | | Modify Physical EOP P | MYEPEZ | 4/5/2022 |
| | | | Modify Physical EOP P(a) value - caused by a change in the Physical P(a). | MYEPEZ | 4/5/2022 |
| | | | Modify Physical Historical Actual | MYEPEZ | 4/5/2022 |
| | | | Modify Physical P value | MYEPEZ | 4/5/2022 |
| | Streetlight installation completed | Modify Output | Modify Physical EOP P(a) value - caused by a change in the Physical P(a). | CARLOSEC | 3/17/2022 |

RISKS AND PLANNED RESPONSES

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|-------------------------------------|
| 1 | Inactive | | Environmental and Social Safeguards |
| | | | |
| | Response Actions | | |
| | 1.0 | Management Strategy | Status |
| | | - | |
| | | | |

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|---------------------------|
| 3 | Inactive | | Institutional Environment |
| | | | |
| | Response Actions | | |
| | 3.0 | Management Strategy | Status |
| | | - | |
| | | | |

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|--------------------|
| 6 | Inactive | | Internal Processes |
| | | | |
| | Response Actions | | |
| | 6.1 | Management Strategy | Status |
| | | MITIGATE | INACTIVE |
| | | | |

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|-----------------------|
| 8 | Inactive | | Political Environment |
| | | | |
| | Response Actions | | |
| | 8.0 | Management Strategy | Status |
| | | - | |
| | | | |

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|---------------------|
| 9 | Materialized | | Goods, and Services |
| | | | |
| | Response Actions | | |
| | 9.1 | Management Strategy | Status |
| | | MITIGATE | ACTIVE |
| | | | |

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|--------------------|
| 12 | Active | | Social Environment |
| | | | |
| | Response Actions | | |
| | 12.1 | Management Strategy | Status |
| | | MITIGATE | ACTIVE |
| | | | |
| | | | |

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|--------------------|
| 14 | Inactive | | Internal Processes |
| | | | |
| | Response Actions | | |
| | 14.1 | Management Strategy | Status |
| | | MITIGATE | ACTIVE |
| | | | |
| | | | |

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|--------------------|
| 15 | Active | | Internal Processes |
| | | | |
| | Response Actions | | |
| | 15.1 | Management Strategy | Status |
| | | MITIGATE | ACTIVE |
| | | | |
| | | | |

| Risk ID | Risk Status | | Risk Taxonomy |
|---------|------------------|---------------------|--------------------|
| 16 | Active | | Internal Processes |
| | | | |
| | Response Actions | | |
| | 16.1 | Management Strategy | Status |
| | | MITIGATE | ACTIVE |
| | | | |
| | | | |

IMPLEMENTATION STATUS AND LEARNING

| Lesson Learned - Categories |
|-------------------------------|
| Others - Fiduciary Dimensions |