

UNEP GEF PIR Fiscal Year 2023

Reporting from 1 July 2022 to 30 June 2023

1. PROJECT IDENTIFICATION

1.1. Project details

Identification Table	GEF ID.: 10281	Umoja WBS: SB-11418
	SMA IPMR ID: 44213	Grant ID: S1-32GFL-000673
	Project Short Title: SLIM	
Project Title	Antigua and Barbuda Sustainable Low-emission Island Mobility project	
Duration months	<i>Planned</i>	48 months
	<i>Age</i>	26 months
Project Type	MSP	
Parent Programme if child project	Global Programme to Support Countries with the Shift to Electric Mobility	
Project Scope	National	
Region	Latin America and Caribbean	
Countries	Antigua and Barbuda	
GEF Focal Area(s)	Climate change	
GEF financing amount	3,245,000 USD	
Co-financing amount	9,719,315 USD	
Date of CEO Endorsement/Approval	19 February 2021	
UNEP Project Approval Date (on Decision Sheet)	15 April 2021	
Start of Implementation (PCA entering into force)	16 April 2021	
Date of Inception Workshop, if available	08 July 2021	
Date of First Disbursement	18 June 2021	
Total disbursement as of 30 June 2023	745,675 USD	
Total expenditure as of 30 June 2023	323,294 USD	
Midterm undertaken?	In progress	
Actual Mid-Term Date, if taken	N/A	
Expected Mid-Term Date, if not taken	July 2023	
Completion Date	<i>Planned – original PCA</i>	30 April 2025
	<i>Revised – Current PCA</i>	N/A
Expected Terminal Evaluation Date	30 April 2025	
Expected Financial Closure Date	30 April 2026	

1.2. Project description

Objective: Promote low-carbon and climate-resilient public and private transportation systems in Antigua and Barbuda.

Component 1: Institutionalization of Low Carbon and Climate Resilient Electric Mobility

This component aims to strengthen national cooperation and coordination, build a knowledge base and capacity, and raise awareness for accelerating the adoption of low-carbon and climate resilient electric mobility in Antigua and Barbuda. A multi-stakeholder strategy will be implemented to ensure that the design, implementation, and evaluation of interventions draws on the inputs and interests of all national stakeholders. Capacity will be built by supporting public stakeholders to undertake a comprehensive technical analysis of the possibilities for transforming the island to renewable energy and low-carbon and climate resilient transport. Further capacity will be built by dedicated trainings, which draw on the global programme. Based on these outputs, cooperation and coordination will be strengthened, firstly through the development of a national target on electric mobility. A national plan will then be developed for achieving this target, through broad ranging consultations mechanisms. Finally, public awareness will be raised to build support for implementing the plan and to inform of the benefits and viability of low-carbon electric mobility in Antigua and Barbuda.

Component 2: Short Term Barrier Removal Through Low Carbon Electric Mobility and Climate Resilient Renewable Energy Demonstrations

This component aims to provide evidence through demonstrations to local stakeholders of the viability of electric mobility and renewable energy. It will address non-financial barriers related to a lack of confidence and awareness of the viability of electric mobility for island conditions through the demonstration of electric vehicles in two high-visibility public fleets: buses and taxis. Additionally, through the electric buses this component aims to demonstrate a bus system which can provide a more effective service than the existing service and thus encourage a modal shift towards public transport. By supporting the taxi and bus drivers and owners to gain confidence in the technology, this component hopes to generate interest among the drivers to purchase electric vehicles. Further, this component will generate data to support policymaking and provide further evidence on the technology viability of clean renewable energy and its connection to an interconnected grid system. It will also demonstrate the capacity of the existing grid to accommodate renewable energy.

Component 3: Preparing for Scale Up a Replication of Low Carbon Electric Mobility and Climate Resilient Renewable Energy

Component 3 focuses on scaling-up electric mobility and renewable energy in the medium – to long-term. It aims to reduce barriers to the uptake of electric vehicles by installing grid-interactive solar charging stations across the country. Further, it will establish standards, regulations, and policy frameworks to further reduce this cost differential and incentivize adoption of electric vehicles. The output will establish data collection mechanisms to support effective policy development and monitoring of efforts in the transport and power generation sectors.

Component 4: Long Term Environmental Sustainability of Low Carbon Electric Mobility

Component 4 focuses on building capacity and establishing policies, standards, and regulations to ensure the long-term environmental sustainability of electric mobility in Antigua and Barbuda. It aims to achieve this by building the capacity of waste companies on the re-use and disposal of conventional and electric vehicles and electric vehicle batteries. It also works to achieve this by establishing standards and a policy framework for regulating the disposal of electric and conventional vehicles. Finally, it aims to establish standards and policy framework for regulating emissions from the power generation sector, as well as for integrating renewable energy into the grid, setting a level playing field for the mass uptake of grid-connected renewable energy.

Executing Agency: Department of Environment

Main Project Partners: Antigua and Barbuda Bus Association, United Taxi Association, Antigua and Barbuda Transport Board (ABTB), National Solid Waste Management Authority (NSWMA), West Indies Oil Company (WIOC).

1.3. Project Contacts

Division(s) Implementing the project	Industry and Economy Division
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Name of co-implementing Agency	N/A
Executing Agency(ies)	Ministry of Health, Wellness, Social Transformation and the Environment, Department of Environment
Names of Other Project Partners	N/A
UNEP Portfolio Manager(s)	Geordie Colville, Ruth Coutto
UNEP Task Manager(s)	Asher Lessels
UNEP Budget/Finance Officer	Fatma Twahir
UNEP Support/Assistants	Luiza Schmidt (programmatic) and Carla Santoro (finance)
EA Manager/Representative	Diann Black-Layne
EA Project Manager	Melissa Le Blanc
EA Finance Manager	Chalisa Phillip
EA Communications Lead, if relevant	N/A

2. OVERVIEW OF PROJECT STATUS

2.1 UNEP PoW and UN

UNEP Current Subprogramme(s)	Climate action
PoW Indicator(s)	Indicator (ii): Amounts provided and mobilized in \$ per year in relation to the continued existing collective mobilization goal of the \$100 billion commitment through to 2025 with UNEP support
UNEP previous Subprogramme(s)	N/A
UNSDCF / UNDAF linkages	<p>The project contributes to the following strategic objective of the UN Multicounty SDCF- The English and Dutch Speaking Caribbean (2022- 2026):</p> <p>Priority area 3 : resilience to climate change and shocks and sustainable natural resource management</p> <ul style="list-style-type: none"> - Outcome 5: Caribbean people, communities, and institutions have enhanced adaptive capacity for inclusive, gender responsive disaster risk management and climate change adaptation and mitigation - Outcome 6: Caribbean countries manage natural resources and ecosystems strengthening their resilience and enhancing the resilience and prosperity of the people and communities that depend on them.
Link to relevant SDG Goal(s)	SDG 13: Climate Action. SDG 7: Affordable and clean energy;
Link to relevant SDG Target(s)	13.2.2 Total greenhouse gas emissions per year 13.b.1 Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications, as reported to the secretariat of the United Nations Framework Convention on Climate Change 7.1.2 Proportion of population with primary reliance on clean fuels and technology. 7.2.1 Renewable energy share in the total final energy consumption.

	7.b.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)
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2.2. GEF Core Indicators:

Indicators	Targets – Expected Value			Materialized to date
	Mid-term	End-of-project	Total target	
Greenhouse Gas Emissions Mitigated (metric tons of CO _{2e})	20 tCO _{2e}	200 tCO _{2e}	218,698 tCO _{2e} direct 215,496 tCO _{2e} indirect 434,194 tCO _{2e} total	GHG emission reduction by the end-of-project will be achieved through implementation of demonstration pilots, which will start in the next period.
Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	200 women and 200 men	Women: 1,850 Men: 1,820 Total: 3,670		The project has thus far engaged: Men – 400, Women – 229 through project implementation consultations, EV and project communication campaign activities, EV demos and workshops. The project will achieve a significant number of direct beneficiaries through the implementation of demonstration pilots (bus drivers, taxi drivers and users).

2.3. Implementation Status and Risk

	FY 2022	FY 2023	FY 20__	FY 20__	FY 20__
PIR #	1 st	2 nd	3 rd	4 th	...
Rating towards outcomes (DO) (section 3.1)	S	S			
Rating towards outputs (IP) (section 3.2)	S	S			
Risk rating (section 4.2)	M	L			

The rating towards outcomes is **satisfactory** for the following reasons:

For outcome 1, a stakeholder engagement strategy was developed and is under implementation, and the government has established a commitment in electric mobility in the revised NDC, that includes the following transport targets: (i) Ban on the importation of new internal combustion engine vehicles 2030; and (ii) 100% of government vehicles will be electric vehicles by 2030. However, it is not yet clear to government sectors their role in achieving the targets, which reinforces the need for a National Electric Mobility Plan, in development under output 1.5.

For outcome 2, the design and specifications of the pilot with EV taxis and its charging stations has been completed and the procurement process has already been carried out. The project management unit (PMU)

is currently working on stakeholder engagement and cooperation agreements and contracts needed for operations to begin once the vehicles and equipment are delivered in August 2023. The electric bus pilot has also been designed and is in the procurement phase. The monitoring and evaluation methodology for both pilots has been completed. The outcome is on track.

For outcome 3, output 3.1 have changed in the last revision approved by UNEP in Q2 2023. Project output 3.1 has been refocused to electric vehicle charging stations which were highlighted by stakeholders as a major point of concern in order to increase electric vehicles demand in the country. The output is now 'Public and Private Consumers have Access to a National Network of Electric Vehicle Chargers to Support the Scale-Up and Replication of Low-Carbon Electric Mobility.' A baseline assessment is currently being carried out by members of the EA to create a focus area for the detailed charging station assessment that will be carried out by a consultant. This study focuses on the suitability of potential locations for the detailed assessment and includes basic requirements such as parking space, adequate lighting, proximity to popular locations.

The project is advancing in the preparation of policy frameworks for low-carbon electric mobility. Best practices reports have been completed for regulating (i) the importation of vehicles, (ii) the quality of imported fuel, and (iii) the installation of public and private charging infrastructure. A Regulatory and Legal Framework Expert and Advisor will start on July 2023. This consultant will be tasked with completing the standards and policy guidelines for the aforementioned items.

For outcome 4, actions are being taken to ensure long-term sustainability of electric mobility in Antigua and Barbuda. The Transport Electrification Consultant and the project team held a gender-sensitive training course on reusing, recycling, and disposing of used vehicles in Q3 2022. Members from the National Solid Waste Management Authority (NSWMA), Ministry of Health, Antigua and Barbuda Transport Board (ABTB) and Ministry of Agriculture, in addition to private sector waste recycling and disposal businesses, members of the education sector and members of civil society participated in the training workshop. Information and resources gathered from stakeholders during the training workshop has been used to inform the best practices portfolio for the regulation of the disposal of (End of Life Vehicles) ELVs, conventional and electric which was completed in Q4 2022. This report will be used to inform the report on options for standards and policy framework on ELV disposal, to be developed by the Regulatory Framework and Legal Advisor that should start in July 2023. The outcome is on track.

The rating towards outputs is **satisfactory**. Progress in executing most outputs is aligned in time with the workplan, with some expected delays that have been managed by the PMU. The project team has established cooperation with other projects and institutions.

Overall risk rating is **low**. The element responsible for the moderate risk on last PIR (2022) was addressed through a project revision (approved in Q2 2023). Despite the implementation challenges and some expected delays, the overall risk is considered low given the strong adaptive management of the project team. Significant progress has taken place in the last period. In addition, an independent consultant is conducting a mid-term review, whose report is due in August 2023. The reviewer's recommendations are expected to help ensure the success of the project. Despite the project being halfway through time with only 10% of the budget executed, this is not considered a risk as the purchase of the electric buses, the charging stations, and the solar panels (and their installation) are scheduled for Q3 and Q4 2023. These procurements represent more than 50% of the total budget.

2.4. Co-financing

Planned Co-finance Total:	USD 9,719,315.00
Actual to date:	USD 1,119,092 (11,5%)
Progress	As of 30 th June 2023, co-financing from the National Solid Waste Management Authority (NSWMA), NDC Partnership (NDPC) and Department of Environment (DOE) materialised as expected, reaching co-financing USD 700.000. This co-financing as follows:

	<ul style="list-style-type: none"> - NSWMA: in-kind contribution to support the development of the vehicle recycling course through quality control and establishing contact with key stakeholders and continuing the derelict vehicle clean-up programme in 2020 - The DOE has provided in-kind support with quality control, project accounting, procurement, contract development for consultants, data collection and amenities for project staff. - The NDCP contributed through the Climate Enhancement Action Package (CAEP) to output 1.1: A multistakeholder consultation strategy is implemented, output 1.2: Economic, social and technical viability of fleet electrification, renewable energy penetration and Component 3: preparing to scale up e-mobility and climate resilient renewable energy. In addition, supported activities 1.3.1 stakeholder mapping, 1.3.2 develop a stakeholder engagement and communication plan, 2.1.1 conduct gap analysis to assess current progress in reducing GHG emissions, 2.1.2 identify any documents projects and measures to determine how they contribute to meeting NDC targets and 5.1.1 develop structure for social and financial inclusion programme for renewable energy investment. <p>New co-financing partner IRENA has contributed through the IRENA SIDS Lighthouse Initiative with technical support through the development of a technology action plan for the electrification of the transport sector in Antigua and Barbuda. This analysis has contributed to D D1.2.1: Fleet electrification feasibility analysis and D1.2.2: Renewable energy generation capacity study.</p> <p>Challenges are being faced in realizing a substantial part of the committed co-financing:</p> <ul style="list-style-type: none"> - A one million USD grant from the government of India that was intended to be contributed by the Department of Environment as co-financing for the project, was reallocated to support the covid-19 relief effort in Antigua and Barbuda. <p>Seven million USD from the Abu Dhabi Development Fund loan for the IRENA ADFD Phase 2 is pending due to delays in the IRENA ADFD Phase 1 project caused by COVID-19. This loan is now expected to materialise during years 2 and 3 of the SLIM project.</p>
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2.5. Stakeholder engagement

Date of project steering committee meeting	<p>The Project Management Committee discussed the SLIM project as outlined below:</p> <ul style="list-style-type: none"> - 5th October 2022 – Review and approval of the procurement of electric vehicles and charging stations to support the taxi pilot project (Component 2) - 28th June 2023 – Review and approval of the procurement of the SLIM Regulatory Framework and Legal Advisor
Stakeholder engagement	<p>Satisfactory. Project component includes development of a stakeholder engagement and communication plan and is working on other cooperation arrangements towards vehicle operation. Project is disclosing information and demonstrating consideration of stakeholder views within component design, and multi-stakeholder engagement towards the longevity of the project through a gender sensitive approach.</p> <p>Stakeholder engagements were held according to the stakeholder consultation and engagement strategy that was completed in 2021. The engagements have been documented individually and within the quarterly stakeholder consultation report. Reports for Q2 2022, Q3 2022, Q4 2022 and Q1 2023 were completed within this reporting period, the Q2 2023 report will be completed in July 2023. During this period, as near all COVID-19 restrictions were removed the project team transitioned from a balanced blend of in-person and virtual engagements</p>

	<p>to majority in-person engagements with its key project stakeholders. The key stakeholders referenced as follows: Antigua and Barbuda Bus Association, United Taxi Company (UTC), Antigua and Barbuda Transport Board (ABTB), Antigua and Barbuda Airport Authority (ABAA), West Indies Oil Company (WIOC) and the Sir Vivian Richards Stadium. Major stakeholder engagements are highlighted below:</p> <p>Meetings with ABAA led to confirmation that ABAA was on board with the installation of the EV charging stations, but it will not permit the installation of the solar carport at the VC Bird International Airport (VCBIA). ABAA had concerns relating to the short-term and long-term management, maintenance costs of the carport beyond the lifetime of the project, and the responsibility of charging the UTC for the use of the electricity through charging stations. ABAA indicated that they were not interested in expanding their existing relationship with the UTC due to ongoing negotiations with UTC. As a result, it was recommended that WIOC is given the responsibility to manage EV charging services for the implementation of the pilot project at the VCBIA. Additionally, the solar allocation for the VCBIA was reallocated to the Sir Vivian Richards Stadium which can be paired with the ongoing construction of 2 wind turbines and completed bus charging stations (installed through the Italian Electric School Bus project). The hybrid energy system will be used as a renewable energy demonstration park. Further, to address ABAA's concern regarding the cost of electricity the EV charging stations will be attached to their own meter, to ensure that the electricity costs are borne by WIOC and UTC.</p> <p>During this period, the project team met closely with UTC, conducted an EV demo using the DOE's existing EVs, and discussed the implementation of the pilot project. Following the meeting, a contract was drafted in Q1 2023 outlining the responsibilities of the DOE and UTC for the duration of the pilot project. This contract is currently under review. Similarly, following meetings held with WIOC regarding the pilot project charging stations a contract agreement was drafted in Q1 2023 and signed in Q2 2023. Following the signature of this contract, meetings are scheduled for July 2023 to facilitate formal agreement between the ABAA and WIOC for the charging stations. Additionally, the project team engaged with the Bus Association and ABTB for the revision of the electric bus specifications.</p>
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2.6. Gender

Does the project have a gender action plan?	Yes
Gender mainstreaming	<p>Moderately Satisfactory. It's interesting to note the project commitments to engage women in the project and the approaches established so far to achieve the proposed 25% women participation in the project. However, it is ideal to take into consideration that gender mainstreaming is not only about women participation but include amongst others gender roles, needs and perspectives. These could be reported in the next PIR.</p> <p>As written in the stakeholder engagement strategy a gender sensitive approach has been used for stakeholder consultations. The project team which is led by women through the Project Manager and Project Coordinator has strived to encourage women to participate in all spheres of the SLIM project. The results of this have been seen at the consultations that have been held thus far. As indicated in the project document, a register documenting gender has been included for every stakeholder consultation to track the gender distributions of SLIM consultations.</p> <p>In all consultation efforts a male and female representative are requested from each agency. Due to the low number of women in the sectors targeted by this project, female participation in each consultation can be challenging, for example, the bus association was unable to bring a female participant to a</p>

	<p>consultation process as the two invited female members were otherwise occupied. As guided by the stakeholder engagement strategy and the project's gender action plan, female participation and engagement with vulnerable groups will continue to be strongly pursued in all stakeholder engagement and project implementation activities.</p> <p>Discussion has begun with the bus and taxi associations to conduct the pilot project. In these discussions the associations have been advised that female participation in the pilot is mandatory and it has been written into the draft agreements between the DOE and the agencies as we seek to achieve the project's target of at least 25% female participation in the pilot. Thus far the project has engaged with 248 men and 143 women.</p>
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2.7. Environmental and social safeguards management

Moderate/High risk projects (in terms of Environmental and social safeguards)	<p>Was the project classified as moderate/high risk CEO Endorsement/Approval Stage?</p> <p>Yes</p> <p>If yes, what specific safeguard risks were identified in the SRIF/ESERN?</p> <p>The CEO ED gives a M rating to SS2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes.</p>
New social and/or environmental risks	<p>Have any new social and/or environmental risks been identified during the reporting period?</p> <p>No</p>
Complaints and grievances related to social and/or environmental impacts	<p>Has the project received complaints related to social and/or environmental impacts (actual or potential) during the reporting period?</p> <p>No</p>
Environmental and social safeguards management	<p>Satisfactory. The risk rating has reduced from moderate to low risk following a project revision. Continue to apply adaptive management incorporating the results of the environmental, socio-economic analysis and the project's potential impacts on vulnerable groups.</p> <p>As noted in the CEO ED training on End-of-Life Vehicle Management has been included in output 1.4 of the project work plan to mitigate this risk. The first training was conducted in August 2022, this training highlighted the following:</p> <ul style="list-style-type: none"> • Vehicle battery management and battery reuse • Hazardous Waste Management • Lithium-ion recycling technology • Considerations for EVs • Worker and Public Safety • Environmental Health and Safety • Site Security <p>A socio-economic analysis to establish the impact of the electric vehicle transition on economically vulnerable people and communities is under development. The final report is expected in Q4 2023.</p>

2.8. Knowledge management

Knowledge activities and products	<p>For all workshops and meetings held during this period, minutes and workshop reports and materials were shared with workshop invitees and attendees to ensure shared knowledge.</p> <p>During this period the Q2 and Q3 quarterly stakeholder engagement reports were completed, they include all the engagement and consultation conducted from project commencement to the end of Q3 2022.</p>
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	<p>The project's data management software is reported to be 90% complete with testing and integration of live data remaining before it is considered complete. When complete the data management consultant will hand over the system and hold training sessions for the DOE data management unit. This system will capture the data produced by the pilot project which will be used to monitor and evaluate the projects performance, the performance of electric vehicles and solar powered charging stations within Antigua. This data will be shared to project partners through the performance reports carded for the final year of the project and macro level data will be shared via the SLIM project's webpage.</p>
<p>Main learning during the period</p>	<p>More likely than not, for SIDS the implementation of innovative and technical projects, requires external consultants to complete technical works as there is no local expertise in the subject matter. This presents as an opportunity and a challenge as these external experts are experts in the subject matter within the context of developed large countries. Their resistance to accept and collaborate with the local project team can many times result in deliverables that are not tailored to local circumstances despite the feedback of the local project team. 70% of vehicles imported into Antigua and Barbuda are used because the cost of new vehicles is beyond the reach of the majority of the local population. Despite robust engagement the uptake of electric vehicles will likely only be mainstreamed by the public when used electric vehicles become readily available.</p>

2.9. Stories to be shared

<p>Stories to be shared</p>	<p>No stories to be shared at this point.</p>
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3. PROJECT PERFORMANCE AND RISK

Based on inputs by the Project Manager, the **UNEP Task Manager**¹ will make an overall assessment and provide ratings of:

- (i) Progress towards achieving the project Results(s)- see section 3.1
- (ii) Implementation progress – see section 3.2

Section 3.3 on Risk should be first completed by the Project Manager. The UNEP Task Manager will subsequently enter his/her own ratings in the appropriate column.

3.1 Rating of progress towards achieving the project outcomes (Development Objectives)

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ²
Objective: Promote low carbon and climate resilient public and private transportation systems in Antigua and Barbuda.	Indicator A: Tons of direct GHG emissions avoided during project.	Baseline A: 0 tons avoided	Mid-point target A: 20 tons avoided	End-of-project target A: 200 tons avoided	0 tons avoided	Project’s GHG emission reduction will be achieved through implementation of demonstration pilots. Progress has been made toward this target through: Procurement of the projects electric taxis and charging stations that are scheduled to arrive in July/August 2023. Completion of the technical specifications for the electric buses and issuing of the RFP.	S
	Indicator B: Number of direct project beneficiaries (women and men)	Baseline B: 0 beneficiaries	Mid-point target B: 200 women and 200 men	End-of-project target B: 1850 women and 1820 men	400 Men 229 Women	The project has thus far engaged: Men – 400, Women – 229 through project implementation consultations, EV and project communication campaign activities, EV demos and workshops. The project will achieve a significant number of direct beneficiaries through the implementation of demonstration pilots (bus drivers, taxi drivers and users).	S

¹ For joint projects and where applicable ratings should also be discussed with the Task Manager of co-implementing agency.

² Use GEF Secretariat required six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU).

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ²
<p>Outcome 1: The Antigua and Barbudan government demonstrates enhanced coordination, capacity and commitment for promoting electric mobility</p>	<p>Indicator 1: A multi-stakeholder strategy, national commitment and development plan are delivered to the Government for adoption</p>	<p>Baseline 1: 0</p>	<p>Mid-point target 1: Draft strategy, commitment and plan finalized for inter-ministerial consultation</p>	<p>End-of-project target 1: Draft strategy, commitment and plan delivered to the government for adoption</p>	<p>Multi stakeholder consultation strategy completed National Commitment achieved through the 2021 NDC</p>	<p>The stakeholder consultation strategy was completed in Q1 2022, and quarterly stakeholder consultation reports have been completed for 2022 and Q1 2023, with Q2 2023 due in July 2023. These reports will continue throughout the duration of the project.</p> <p>National Commitment on electric mobility was established. The Government of Antigua and Barbuda submitted its revised NDC to the UNFCCC. This NDC includes the following transport targets:</p> <ul style="list-style-type: none"> - Ban on the importation of new internal combustion engine vehicles 2030. - 100% of government vehicles will be electric vehicles by 2030 <p>The studies that will serve as a subsidy for the national development plan for low-carbon and climate-resilient electric mobility are being prepared and the plan is expected to be completed in 2024.</p>	<p>S</p>

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ²
<p>Outcome 2: Antigua and Barbudan citizens begin to use electric mobility for their public transport needs</p>	<p>Indicator 2: Number of Antigua and Barbudan citizens using electric mobility for their public transport</p>	<p>Baseline 2: 0</p>	<p>Mid-point target 2: 175 women and 175 men</p>	<p>End-of-project target 2: 1775 women and 1745 men</p>	<p>0</p>	<p>The procurement for electric taxis, charging stations and digital payment was completed in September 2022. The vehicles were initially scheduled to be delivered in Q1 2023 but were delayed to Q3 2023. The e-taxi pilot project will begin upon delivery of the vehicles and continue for at least one year. The technical specifications for the electric buses were revised and incorporated into an Expression of Interest and then a Request for Proposals (RFP) document. The RFP document will be issued to companies who completed the EOI in July 2023 and the procurement will be completed in August 2023.</p>	<p>S</p>
<p>Outcome 3: The Antigua and Barbuda government takes actions towards financing and implementing policy frameworks for low-carbon electric mobility</p>	<p>Indicator 3: Public and commercial electric vehicle chargers commissioned</p>	<p>Baseline 3: 0</p>	<p>Mid-point target 3: N/A</p>	<p>End-of-project target 3: 10 EV charging stations</p>	<p>0 Public EV Charging Stations</p>	<p>Indicator 3 has been revised to reflect the revision of project output 3.1. A baseline assessment for potential public EV charging stations has been conducted by the project team, this assessment will inform the technical EV charging station assessment to be carried out by a consultant. The TOR for the consultant to carry out the technical EV charging station assessment has been drafted and will be published in August 2023.</p>	<p>S</p>

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ²
Outcome 4: The Antigua and Barbuda government takes action towards implementing policy frameworks and building capacity to ensure the long-term sustainability of electric mobility	Indicator 4: Draft policies and standards for ensuring the long-term environmental sustainability of electric mobility are delivered to the government for adoption	Baseline 4: 0	Mid-point target 4: Report on options for standards and policy frameworks delivered to the government for consideration	End-of-project target 4: Draft policies and standards delivered to the government for adoption	0	<p>The following best practice reports have been completed:</p> <ul style="list-style-type: none"> - D3.2.1 good practices for standards and policy frameworks for regulating the importation of electric and conventional vehicles, including based on review of regional and global best practices -D 3.3.1 Report on good practices for standards and policy frameworks for regulating the quality of fuel imports, including based on review of regional and global best practices -D 3.4.1 Report on good practices for the installation of private and public electric vehicle charging infrastructure, including based on review of regional and global best practices -D 4.2.1 Report on good practices for standards and policy framework for the regulation of end-of-life vehicle disposal for electric and conventional vehicles, including based on review of regional and global best practices and building upon existing studies has been completed. It was informed by the end-of-life vehicle recycling workshop that will bring together key stakeholders in recycling and vehicle disposal. <p>The reports will inform the report on standards and policy options on the subject matters outlined above. The Regulatory Framework and Legal Advisor RFP was issued in March 2023. As of June 2023, candidates have been evaluated and called for interview. The contract is scheduled to be closed in July 2023.</p>	S

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ²
	Indicator 5: Number of individuals trained in the reusing, recycling and disposing used vehicles (both conventional and electric) and electric vehicle batteries	Baseline 5: 0	Mid-point target 5: 25 women and 25 men	End-of-project target 5: 75 women and 75 men	11 women 16 men	The first Gender-sensitive training course on reusing, recycling and disposing of used vehicles took place in August 2022. The training workshop was held in a hybrid format (online and in person). A total of 27 people attended the workshop, of the 27 there 11 women and 16 men. The following sectors were represented: government, private sector, civil society and education. Another workshop will be held in summer 2023.	S

3.2 Rating of progress implementation towards delivery of outputs (Implementation Progress)

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
COMPONENT 1: Institutionalisation of low-carbon and climate-resilient electric mobility					
Output 1.1: A multi-stakeholder consultation strategy is implemented and recommendations for a long-term	Dec 2024	33%	57%	Activities aligned with workplan. The stakeholder consultation strategy was completed in January 2022 and it is currently under implementation.	S

³ Outputs and activities (or deliverables) as described in the project logframe (and workplan) or in any updated project revision.

⁴ The completion dates should be as per latest workplan (latest project revision).

⁵ As much as possible, describe in terms of immediate gains to target groups, e.g. access to project deliverables, participation in receiving services; gains in knowledge, etc.

⁶ To be provided by the UNEP Task Manager

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
coordination mechanism are delivered to key government actors				Stakeholder engagements have taken the form of in-person and online meetings with stakeholders, site visits, data collection activities, electric vehicle demonstrations, educational electric vehicle drives, etc. as outlined in the strategy. Also, the implementation of the communication campaign began in Q3 2022.	
Output 1.2: A comprehensive assessment of the economic, environmental and social viability of fleet electrification, renewable energy capacity penetration and electrical distribution grid stabilization is produced and disseminated with key government decision-makers	Mar 2025	47%	53%	<p>Activities aligned with workplan.</p> <p>D 1.2.1 Fleet Electrification Analysis – The first fleet electrification analysis was completed by the International Renewable Energy Agency (IRENA), the final version was completed in May 2023. This first report focused on the EV transition of the entire vehicular fleet in Antigua and highlighted the transition of public buses. The second analysis was started by the Transport Electrification Consultant in March 2023 and is scheduled for completion in Q4 2023. The second report relies heavily on local data which has been challenging to access.</p> <p>D 1.2.2 Renewable Energy Capacity Study - IRENA’s technical assistance package which focuses on fleet electrification completed the objectives of the first renewable energy generation capacity analysis (D1.2.2 A). It identified the required future installed capacity of renewable energy capacity required to support varying scenarios of e-mobility penetration, it indicated the type of installed capacity and identified potential locations for installation. The second study (D 1.2.2 B), which will build upon the work done will be completed in 2023 alongside the GCF Readiness 5 Project.</p> <p>D 1.2.3 Electricity Distribution Grid Integration - Q1 & Q2 2022 the utility company, alongside the Ministry of Energy with the support of the World Bank and Deloitte completed a Variable Renewable Energy Integration Study. The objective of the study was to determine the trade-offs between integrating new variable RE generation, storage (including battery), and/or transmission solution to meet future demand, achieve RE targets and determine the impact of</p>	S

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
				<p>variable RE on power system operations, emissions, costs, and grid stability. An analysis of the existing power system was conducted in addition to a Capacity Expansion study, Grid Resilience study, Transient stability study and Economic Dispatch evaluation. The results of this study completed the objectives of activity 1.2.3.</p> <p>D 1.2.4 A contract was signed with IRENA in Q1 2023 to support the implementation of the socio-economic analysis to establish the impact of the electric vehicle transition on economically vulnerable people and communities. A survey methodology and survey have been developed; the survey will be conducted in Q3 2023 by PMU. The results of the survey will be shared to IRENA who will conduct an analysis and provide a report, this final report and is expected in Q4 2023.</p>	
<p>Output 1.3 : Services for strengthening the capacity of national stakeholders on technical, financial and regulatory aspects of integrating electric mobility and renewable energy into the electric grid are provided, including through the Global Programme on Electric Mobility</p>	Mar 2025	6%	30%	<p>Activities slightly delayed compared to the work plan.</p> <p>D 1.3.1 Fleet Electrification Workshop – the first workshop was held in August 2022 and the second workshop is scheduled for Q4 2023.</p> <p>D 1.3.2 Capacity building training for bus and taxi drivers to improve their record keeping and business models which can enable them to access sustainable financing are being planned for the next period (Q3 and Q4 2023).</p> <p>D 1.3.3 Capacity building training for the financial sector to enable the sector (banks, credits unions, insurance agencies, etc.) to support innovation and technology transfer for mitigation and adaptation measures, particularly, electric mobility – the PMU is identifying partners that can offer this training in Q4 2023 and/or Q1 2024, with the Global Platform support.</p> <p>D 1.3.4 Workshop for first response units for electric vehicle safety - The first training workshop was held in March 2023 with 25 attendees from the government and private sector emergency services, and the second os being planned for Q4 2023, which will include a training for emergency teams.</p>	S

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
Output 1.4: A national commitment on low-carbon and climate-resilient electric mobility is drafted for adoption by the national government	Feb 2023	100%	100%	This output was completed during the revision of Antigua and Barbuda's Nationally Determined Contributions in August 2021.	S
Output 1.5: A national development plan for low-carbon and climate-resilient electric mobility is drafted for adoption by the national government	Mar 2024	0%	29%	Activities ahead of work plan. The required investment to achieve national commitment has been completed as a part of the fleet electrification analysis by IRENA.	S
Output 1.6: Public and private stakeholders' awareness on the benefits of low-carbon and climate-resilient electric mobility enhanced through a communication campaign and the provision of a public information platform	Mar 2025	16%	37%	<p>Activities slightly delayed compared to workplan.</p> <p>D1.6.1 The communication consultant completed the design of the communication campaign. This included a project logo, project giveaways, a media launch day, and a series of media engagements.</p> <p>D 1.6.2 Implementation of communication activities began in November 2022 and are ongoing. Media activities and in person communication engagements will be actively conducted when the vehicles are delivered and while the pilot is ongoing, i.e., Q3 2023 until the end of Q4 2024.</p> <p>D 1.6.3 The data management consultant will also carry out the design of the information platform. Works on this deliverable has been delayed as the start of implementation of the pilot has been delayed. Work is expected to begin in Q3 2023.</p>	S
COMPONENT 2: Short term barrier removal through low-carbon e-mobility and climate-resilient renewable energy demonstrations					
Output 2.1: The effectiveness of a grid-interactive solar array and EV charging infrastructure at the Sir Vivian Richards Stadium, along with EV charging infrastructure at the V.C. Bird International Airport to power electric taxis is demonstrated to public and private stakeholders	Mar 2025	11%	44%	<p>Activities delayed compared to workplan.</p> <p>D 2.1.1 Technical Requirements of the Solar Array was delayed as the Antigua and Barbuda Airport Authority (ABAA) did not give final approval for the installation of a solar carport at the VC Bird International Airport. As a result, a proposal to change the location and sizing of the PV system was submitted and approved as part of the project revision in Q2 2023. All solar carports will be installed at the Sir Vivian Richards Stadium and the technical specifications for the solar carport will be completed within D 2.3.1.</p>	MS

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
				<p>D 2.1.2 Technical Requirements of Taxi Charging Infrastructure has been completed.</p> <p>D 2.1.3 50 kW grid connected solar array and its installation was delayed as outlined in D 2.1.1 above.</p> <p>D 2.1.4. Electric Vehicle Charging Infrastructure and its installation – the procurement for the charging stations was completed in November 2022. A preliminary work plan for installation was submitted within the contractor’s technical proposal. The West Indies Oil Company (WIOC) signed a contract agreement to facilitate the charging stations for the United Taxi Company (UTC) as a third-party operator. Charging stations are planned to be installed in Q3 2024.</p> <p>D 2.1.5 Solar array and charging infrastructure monitoring protocol and methodology has been completed.</p> <p>D 2.1.6 Quarterly operation and performance reports are delayed as they cannot begin until the equipment is installed and operational. The start is expected in Q3 2023.</p>	
<p>Output 2.2: The viability of electric vehicles as part of the airport taxi fleet is demonstrated to public and private stakeholders</p>	Mar 2025	5%	47%	<p>Activities slightly delayed compared to workplan.</p> <p>D 2.2.1 Technical requirements for electric vehicles to be purchased for the pilot project has been completed</p> <p>D 2.2.2 Procurement of 2 light duty vehicles to be used as taxis was completed in November 2022 alongside D 2.2.3 procurement of digital payment systems and user connectivity apps and D 2.2.4 drivers test drive, safety training in consultation with the taxi association. Delivery of the electric vehicles is expected to July/August 2023. The digital payment systems are included with the charging stations (D 2.1.4) and the concept note for D 2.2.4 the ‘driver test-drive operation, and safety’ training is under development and will be carried out in August 2023 to coincide with the delivery of the vehicles. Engagement with the UTC has been slow as the company’s executive has not shared learning materials within the organization or provided needed information to purchase vehicle insurance. A new strategy is being considered for engagement with the UTC</p>	S

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
				<p>as standard meetings, information sharing, and contract development has provided minimal progress.</p> <p>D 2.2.5 Monitoring and evaluation methodology inclusive of drivers' questionnaire has been completed</p> <p>D 2.2.6 Quarterly operation and performance reports has been delayed coinciding with the delivery of the vehicles in D 2.2.2</p>	
<p>Output 2.3: The effectiveness of charging infrastructure for electric buses at St John's West bus station, is demonstrated to public and private stakeholders</p>	Mar 2025	0%	16%	<p>Activities delayed compared to workplan.</p> <p>D 2.3.1 Technical Requirements of the Solar Array - Technical support from the National Renewable Energy Laboratory (NREL) has been directed to completing this deliverable. Additionally support from NREL will be used to revise and complete D 2.3.2 Technical Requirements of Bus Charging Infrastructure. The solar carport and bus charging stations will be procured within the same RFP. Support was requested from the utility company to provide data needed to complete this deliverable in Q2 2023. Once provided these deliverables will be completed.</p> <p>As outlined above, D 2.3.3 grid connected solar array and its installation was revised to a 150-kW solar PV carport to reflect the requirements of both D2.1.3 and D2.3.3. Procurement for this deliverable is expected to begin in Q3 2023, once D 2.3.1 and D 2.3.2 are completed.</p> <p>D 2.3.4. Electric Vehicle Charging Infrastructure and its installation – the procurement for the bus charging stations has been delayed as it has been paired with the procurement of D 2.3.3. As with the solar carport, the charging stations for the buses have been relocated to the Sir Vivian Richards Cricket Stadium. The utility advised that the electrical grid and feeders in the city of St. John's could not facilitate DC charging for the buses.</p> <p>D 2.3.5 Solar array and charging infrastructure monitoring protocol and methodology has been completed.</p>	MS

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
<p>Output 2.4: The viability of electric buses as part of the public transport bus fleet is demonstrated to public and private stakeholders</p>	Mar 2025	9%	11%	<p>Activities delayed compared to workplan.</p> <p>D 2.4.1 Bus route on which the electric buses will operate along with the operation schedule has been completed. The consultant analysed the routes proposed by the bus association and presented their analysis in a document. This document has been used to determine the routes that the buses will be operated on.</p> <p>D 2.4.2 Technical requirements of the electric buses to be purchased has been drafted but is not considered complete. There have been several challenges with the specifications produced by the consultant as it would require a budget beyond what was allocated to this procurement. The technical requirements have been reviewed, revised, and completed with the support of NREL in May 2023. Another challenge arose within the procurement process, that resulted in a delay in issuing the RFP. However, this was rectified internally, and the RFP will be issued in July 2023. The procurement process is scheduled to be finalised and closed in August 2023.</p> <p>D 2.4.3 Procurement of 2 electric buses based on D 2.4.2 and D 2.4 4 the digital payment systems, D 2.4.5 driver test drive safety and protocol operation have been delayed due to challenges with D 2.4.2 as they will all be procured under the same procurement.</p> <p>D 2.4.6 Monitoring and evaluation methodology including before and after driver’s questionnaires has been completed</p>	MS
COMPONENT 3: Preparing for scale-up and replication of low-carbon electric mobility and climate-resilient renewable energy					
<p>Output 3.1: Public and Private Consumers have Access to a National Network of Electric Vehicle Chargers to Support the Scale-Up and Replication of Low-Carbon Electric Mobility</p>	Sep 2024	0%	0%	<p>New output proposed in the project revision approved in June.</p> <p>A baseline assessment is currently being carried out by members of the EA to create a focus area for the detailed charging station assessment that will be carried out by a consultant. This study focuses on the suitability of potential locations for the detailed assessment and includes basic</p>	S

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
				requirements such as parking space, adequate lighting, proximity to popular locations.	
Output 3.2: Standards and a policy framework for regulating the importation of electric and conventional vehicles are developed and drafted for adoption by government ministries	Oct 2023	0%	45%	Activities are slightly delayed compared to the work plan. D 3.2.1 Best practices portfolio for standards and policy framework for regulating the importation of electric and conventional vehicles, including based on review of regional and global best practices was completed in December 2022. The balance of activities is scheduled to be completed within 2023. Procurement of the regulatory framework and legal advisor assigned to the tasks was completed in June 2023, contract negotiations are ongoing and are expected to be completed in July 2023. Which will allow for activities to begin in August 2023.	S
Output 3.3: Standards and a policy framework for regulating the quality of imported fuel are developed and drafted for adoption by government ministries	Feb 2024	0%	33%	Activities are slightly delayed compared to the work plan. D 3.3.1 Report on good practices for standards and policy frameworks for regulating the quality of fuel imports, including based on review of regional and global best practices was completed in December 2022. The balance of activities is scheduled to be completed within 2023. Procurement of the regulatory framework and legal advisor assigned to the tasks was completed in June 2023, contract negotiations are ongoing and are expected to be completed in July 2023. Which will allow for activities to begin in August 2023.	S
Output 3.4: Regulations for the installation of private and public electric vehicle charging infrastructure are developed and drafted for adoption by government ministries	Jul 2024	0%	33%	Activities are slightly delayed compared to the work plan. D 3.4.1 Report on good practices for the installation of private and public electric vehicle charging infrastructure, including based on review of regional and global best practices will be finalised in July 2023. Many revisions were needed which resulted in the delay in completion. The balance of activities is scheduled to be completed within 2023. Procurement of the regulatory framework and legal advisor assigned to the tasks was completed in June	S

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
				2023, contract negotiations are ongoing and are expected to be completed in July 2023. Which will allow for activities to begin in August 2023.	
Output 3.5: A data acquisition and management system for the transport and energy sectors is used by key public organizations	December 2024	17%	43%	Activity delayed compared to Workplan. D 3.5.1 was completed via the Software Requirements Specifications (SRS) document and Technical Specifications Document (TSD). D3.5.2, as of this report the implementation of the data management system is at 70%. The development of the data management system (DMS) is at 90% and is presently being tested by the data management consultant when this is completed the DMS will be handed over to the DOE. Hand over is expected in the July/August 2023 period.	S
COMPONENT 4: Long-term environmental sustainability of low-carbon electric mobility					
Output 4.1: Waste companies are trained in reusing, recycling and disposing used vehicles (both conventional and electric) and electric vehicle batteries	Jun 2024	3%	33%	Activities aligned with workplan. D 4.1.1 The first training course on reusing, recycling and disposing of used vehicles was held and the workshop report was completed in August 2022. The second workshop is scheduled to be held in Q3 2023.	S
Output 4.2: Standards and a policy framework for regulating the disposal of electric and conventional vehicles are developed and drafted for adoption by government ministries	Feb 2024	0%	33%	Activities aligned with workplan. D 4.2.1 The best practice portfolio for standards and policy framework for the regulation of end-of-life vehicles was completed. The balance of activities is scheduled to be completed within 2023. Procurement of the regulatory framework and legal advisor assigned to the tasks was completed in June 2023, contract negotiations are ongoing and are expected to be completed in July 2023. Which will allow for activities to begin in August 2023.	S
Output 4.3: Standards and a policy framework for regulating emissions from the power generation sector, as well as for integrating renewable energy into the grid,	Jul 2024	0%	8%	Technical Assistance Partner NREL has begun D 4.3.1 Best practice portfolio for standards and policy framework for the regulation of emissions in the power generation sector, as well as on renewable energy grid integration, including based on review of regional and global best practices. This	S

PIR FY 2023
SLIM

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%) (Towards overall project target)	Implementation status as of 30 June 2023 (%) (Towards overall project target)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
are developed and drafted for adoption by government ministries				deliverable will be finalised in August 2023, it is awaiting feedback from local stakeholders such as the utility company and Bureau of Standards.	

4. Risk Rating

4.1 Table A. Project management Risk

Please refer to the **Risk Help Sheet** for more details on rating.

Risk Factor	EA's Rating	TM's Rating
1. Management structure – Roles and responsibilities	L	L
2. Governance structure – Oversight	L	L
3. Implementation schedule	M	M
4. Budget	L	L
5. Financial Management	L	L
6. Reporting	L	L
7. Capacity to deliver	L	L

If any of the risk factors is rated a Moderate or higher, please include it in table B below.

4.2 Table B. Risk-Log

Risk	Risk affecting:	Risk rating			Variation respect to last rating	
	Outcome / outputs	CEO ED	PIR 1	PIR 2 (this PIR)	Δ	Justification
<p>Uncertainty around the duration and evolution of the current COVID-19 outbreak and its impact on the country's economic outlook and public sector priorities.</p> <p>Constraints on in-person consultation and training workshops.</p> <p>Reduced purchasing power of people of Antigua and Barbuda due to the economic crisis triggered by COVID-19 pandemics, may jeopardize the uptake of the SIRFF financial window.</p> <p>COVID-19 impact on global supply chain might adversely affect the procurement of vehicles and infrastructures required for the pilot project.</p>	Outcome 2, Output 2.2, Output 2.4	M	M	L	↓	<p>There are no longer COVID-19 restrictions on in-person gatherings. The restrictions of the pandemic have allowed for meetings/workshops to become more accommodating and flexible in the hybrid format. While in-person engagement is preferred, if persons (consultants or stakeholders) cannot attend meetings in-person they can attend the engagement online.</p> <p>The SIRFF window was removed in the project revision. As a result, the risk to the uptake of the window is no longer applicable.</p> <p>The impact of COVID-19 on the global supply chain has delayed the supply of the project's electric taxis. Initially scheduled to be delivered by March 2023, the scheduled delivery of the vehicles has been delayed to July/August 2023.</p>

The high cost of electric vehicles and high cost of grid electricity could result in an increase of the public transport bus fare, affecting vulnerable communities.	Outcome 2	L	L	L	=	<p>Since the last PIR, in Q4 2022 the cost of gas decreased from 17.50 XCD per gallon to 13.99 XCD per gallon, and the cost of diesel decreased from 17.25 XCD per gallon to 14.25 XCD. These costs have remained steady throughout Q1 & Q2 2023. The government subsidy for bus and taxi drivers was discontinued as the cost of fuel decreased.</p> <p>The cost of electricity has not increased since mid-2014. Considering the current cost of electricity appx 0.90 XCD per kWh and the cost of fuel it is more affordable to operate an EV. Further, when charging systems are powered by renewable energy like the SLIM solar carport, and the component 3 charging station expansion the cost of charging will decrease.</p> <p>No clear risk is seen regarding increased costs of public transport. However, if positioned as a premium service within the tourist taxi industry, EV taxi service may attract an additional fee.</p>
Political opposition to the uptake of EVs, renewable energy and development and approval of more stringent environmental regulations in the transport, energy and waste management sectors.	All outcomes & outputs	M	M	M	=	The GOAB approved the 2021 revised Nationally Determined Contributions for Antigua and Barbuda which includes ambitious energy and transport targets to reduce greenhouse gas emissions. However, the Antigua Public Utilities Authority (APUA) continues toward the implementation of a 40 MW Liquid Natural Gas (LNG) power plant. Further, APUA's cooperation for the installation of the solar carport at the stadium can impact the timelines outlined for the carport's installation.
The inclusion of electric buses through the pilot project could generate resistance from the bus association, as it could result in lower revenue for drivers.	All outcomes & outputs	L	L	L	=	The Bus Association has been engaged throughout the project. The association is keen to participate in the demonstration project, even more so in 2022 with the appx 40% increase in the cost of gas and diesel. Meanwhile the cost of electricity has been appx. 0.33 USD/kWh from November 2020 – present. A decrease of 10% from the 2015 – 2022 electricity rate. The cost to charge an EV vs the cost to fuel a similar ICE vehicle is lower. Indicating that the cost of operations for the EV will be lower, resulting in higher revenues for drivers.
Risk of high impact climatic event such as a hurricane could disrupt power generation, damage electric vehicles, destroy infrastructure, etc.	All outcomes & outputs	M	L	L	=	There were no severe storm events experienced in Antigua and Barbuda in 2021 & 2022. However, every hurricane season presents a high-risk as a storm or hurricane can directly impact Antigua and Barbuda. The project is designing robust demonstrations, with reduced exposure.
Higher electricity use by electric vehicles might lead to higher emissions, e.g. from the diesel and oil power generators	Project Objective	L	L	L	=	This risk is a barrier that will be addressed during project implementation. <p>The pilot project includes appx. 150 kW grid-interactive (i.e., battery and grid connection) solar installation to offset potential emissions that may be caused by the electricity demand of the pilot vehicles.</p>
Materials from electric vehicles (EVs) (e.g. from batteries) might generate environmental pollution	Output 4	L	L	L	=	This risk remains low as the project directly addresses the sustainable disposal of EVs and ICE vehicles.
Promoting the use of EVs without restricting the number of overall vehicles will result in more	Project Objective	L	L	L	=	The foreign used ICE vehicle market has increased the number of vehicles in Antigua and Barbuda significantly due to their low cost. The present cost of new EVs and the low number of used EVs available will not trigger this risk.

traffic, energy consumption, strain on transport infrastructure and thus GHG emissions						Further, the country's revised NDC includes a ban on the importation of new internal combustion engine vehicles 2030 (with an indicative start year of 2025).
The country's grid is unstable and not resilient affecting the performance of the project pilots	Output 2	L	L	L	=	This risk is a barrier that will be addressed during project implementation. This risk remains low as the project's charging stations will be attached to decentralised solar powered installations with battery storage.
The high cost of EVs and high cost of grid electricity can reduce the uptake of the technology	Outcome 2	M	M	M	=	This risk is a barrier that will be addressed during project implementation. The cost difference in EVs vs ICE vehicles is still an area of concern as global supply chain issues have slowed the decrease in costs in EVs that were expected for 2021 and 2022. Moreover, most vehicles purchased are second-hand vehicles imported from developed countries. These vehicles are a fraction of the cost of new vehicles. Until the used EV market develops the uptake of EVs in country will continue to be slow. The revised NDC commits to the transition of the GOAB vehicular fleet to EVs. The GCF scale up of the SLIM project will address the transition of 30% of the GOAB's vehicular fleet to electric. The replacement of 30% of the fleet will stimulate the vehicle market to provide EV options which in turn will reduce the cost to purchase EVs.
High air conditioning energy requirements, and vehicle operating conditions will reduce the range of electric vehicles	Outcome 2	L	L	L	=	Although high AC requirements will reduce the range of EVs the risk is still deemed as low because the driving range in Antigua is low compared to larger countries.
Current lack of electric vehicle availability	Outcome 2	L	M	L	↓	The electric taxis were procured and are expected to be delivered in August 2023. 3 companies expressed interest in supplying the buses. RFP will be issued in July by DOE. Procurement is expected for August 2023.
Lack of technical support on the maintenance and deployment of vehicles and infrastructure	Project Objective	L	L	L	=	This risk is a barrier that will be addressed during project implementation. Maintenance is written into the procurement terms for the equipment i.e., EVs & charging stations
Access to affordable credit by potential electric taxi purchasers may reduce scale-up potential of project	Outcome 2	M	M	M	=	This risk is a barrier that will be addressed during project implementation. There is an existing financial system that supports the purchase of vehicles. However, the risk remains because the interest rates and insurance rates experienced by EVs are higher than ICE vehicles which can hinder the uptake of EVs. This risk is addressed within the project through the training of financial institutions and taxi drivers regarding financing sustainable assets such as EVs.
Implementation Schedule	Outcome 2	N/A	N/A	M		As noted above in justification regarding the lingering impact of COVID-19 on the EV supply chain. Also, despite continued engagement with the United Taxi Company (UTC), the UTC has been slow to review and implement a formal contract agreement for the implementation of the e-taxi pilot project. This issue is also flagged for

						engagement with the National Solid Waste Management Authority (NSWMA). Challenges with the WIOC and Airport Authority have been resolved at the time of this report. The participation of key stakeholders remains challenging despite robust outreach to these stakeholders.
Overall risk rating			M	L	↓	The element responsible for the moderate risk on last PIR (2022) was replaced in the last project revision (approved in Q2 2023) by an increased network of charging stations with the aim of increasing the demand for electric vehicles. Thus, despite the implementation challenges (presented below) and some expected delays, the overall risk is considered low given the strong adaptive management of project team.

Table B. Outstanding Moderate, Significant, and High risks

Risk	Actions decided during the previous reporting instance (PIR _{t-1} , MTR, etc.)	Actions effectively undertaken this reporting period	Additional mitigation measures for the next periods		
			What	When	By whom
Political opposition to the uptake of EVs, renewable energy and development and approval of more stringent environmental regulations in the transport, energy and waste management sectors.	(CEO document). Component 1 strongly tackles this risk by seeking the establishment of an electric mobility national commitment followed by an electric mobility national development plan focused on achieving such commitment. These will be supported by capacity building activities and technical studies.	<ol style="list-style-type: none"> In person workshops and meetings were carried out with key stakeholders – United Taxi Company (WIOC), West Indies Oil Company, Antigua and Barbuda Airport and Antigua and Barbuda Transport Board (ABTB) to strengthen support for the project. A contract has been signed with WIOC who will lead charging station implementation for the pilot project. Collaborated with the Bus Association and ABTB for the procurement of the electric buses. This is ongoing. 	<ol style="list-style-type: none"> Review and detail the stakeholder engagement strategy for (i) the preparation of the national electric mobility plan (C1), and engagement of (ii) Antigua Barbuda Bus Association for implementation of C2; (iii) and the National Solid Waste Management Authority for C4. Implement the engagement strategy during development of the national e-mobility plan. Carry out regular in-person meetings with the Antigua and Barbuda Bus Association Host workshops with the utility company, Ministry of Energy & National Solid Waste Management Authority 	<ol style="list-style-type: none"> July to August 2023 September 2023 to March 2024 July to December 2023 July to December 2023 	<ol style="list-style-type: none"> Project Manager, DOE with the support of LAC Regional Platform and Consultancy on transport and vehicle electrification Project Manager, DOE, Consultancy on transport and vehicle electrification Project Manager, DOE Project Manager, DOE
Implementation Schedule	N/A	N/A	<ol style="list-style-type: none"> Regular follow-up meetings with e-vehicles suppliers UNEP mission to the country 	<ol style="list-style-type: none"> July until de vehicles delivery 	<ol style="list-style-type: none"> Project Manager

Risk	Actions decided during the previous reporting instance (PIR _{t-1} , MTR, etc.)	Actions effectively undertaken this reporting period	Additional mitigation measures for the next periods		
			What	When	By whom
			3. Implementation of updated stakeholders engagement strategy in order to have all permissions, agreements and contracts signed in a timely manner (see previous risk)	2. By October 2023 3. September until end of project	
Additional measures to increase project success:			1. Define a strategy and establish partnerships to strengthen capacity building activities on finance (D1.3.2 and D1.3.3) 2. Build a critical Path for the National E-mobility Plan (output 1.4) 3. In Component 3, include standards and policy framework for regulating the importation of second-hand electric vehicles.	1. By November 2023 2. By the end of 2023 3. By Q1 2024	1, 2 and 3. Project Manager with the support of UNEP LAC team and LAC Regional Platform 4. Project Manager with Legal Advisor's support

High Risk (H): There is a probability of greater than 75% that **assumptions** may fail to hold or materialize, and/or the project may face high risks.
Significant Risk (S): There is a probability of between 51% and 75% that **assumptions** may fail to hold and/or the project may face substantial risks.
Moderate Risk (M): There is a probability of between 26% and 50% that **assumptions** may fail to hold or materialize, and/or the project may face only modest risks.
Low Risk (L): There is a probability of up to 25% that **assumptions** may fail to hold or materialize, and/or the project may face only modest risks.

Project Minor Amendments

5.1 Table A: Listing of all Minor Amendment

- | | |
|--|---|
| <input checked="" type="checkbox"/> Results framework | <input type="checkbox"/> Executing Entity Category |
| <input checked="" type="checkbox"/> Components and cost | <input type="checkbox"/> Minor project objective change |
| <input type="checkbox"/> Institutional and implementation arrangements | <input type="checkbox"/> Safeguards |
| <input type="checkbox"/> Financial management | <input type="checkbox"/> Risk analysis |
| <input checked="" type="checkbox"/> Implementation schedule | <input type="checkbox"/> Increase of GEF project financing up to 5% |
| <input type="checkbox"/> Executing Entity | <input type="checkbox"/> Co-financing |

Location of project activity

Other

Minor amendments	An amendment was made in June 2023 including: Budget revision to rephase expenditures, reorganize consultancies being hired through combination of updated optimized scopes, change the selection of previous carport's sites into one of 150kW (Viv Richards Stadium) and recategorize a few budget lines within their same original component. Update in Component 3, replacing the output on the electric mobility funding window to a national network of electric vehicle chargers.
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5.2 Table B: History of project revisions and/or extensions

Version	Type	Signed/Approved by UNEP	Entry into Force (last signature Date)	Agreement Expiry Date	Main changes introduced in this revision
Original legal instrument					
Amendment 1					

GEO Location Information:

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate. Web mapping applications such as [OpenStreetMap](https://openstreetmap.org/) or [GeoNames](https://www.geoNames.org/) use this format. Consider using a conversion tool as needed, such as: <https://coordinates-converter.com> Please see the Geocoding User Guide by clicking [here](#)

Location Name Required field	Latitude Required field	Longitude Required field	Geo Name ID Required field <u>if</u> the location is not an exact site	Location Description Optional text field	Activity Description Optional text field
Saint John's	17.12096	-61.84329	3576022		
V.C. Bird International Airport	17.117439	-61.845144			
St John's West bus station	17.141002	-61.790563			

Please provide any further geo-referenced information and map where the project interventions is taking place as appropriate. *

[Annex any linked geospatial file]



