United Nations Development Programme
Country: Regional
PROJECT DOCUMENT[1]

Project Title:	The Ten Island Challenge: De-risking the Transition of the Caribbean from Fossil Fuels to Renewables
UNDAF/SPD Outcome 1:	Enhanced capacity of national, sub-regional and regional institutions and stakeholders to: effectively manage natural resources; build resilience to the adverse impacts of climate change and natural and anthropogenic hazards; improved energy efficiency and use of renewable energy; improved policy, legal, regulatory and institutional frameworks for environmental and energy governance
UNDP Strategic Plan 2014-2017 Primary Outcome:	Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded Output 1.4. Scaled up action on climate change adaptation and mitigation across sectors which is funded and implemented Output 1.5. Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)
Expected M-CPAP Output(s):	Output 6: Improved energy efficiency and the removal of barriers to the introduction and transfer of renewable energy technology facilitated
Executing Entity/ Implementing Partner:	United Nations Development Programme
Implementing Entity/ Responsible Partners:	Rocky Mountain Institute/Carbon War Room

Brief Description

The project seeks to accelerate the transition of Caribbean island economies from heavy dependence on fossil fuels to a diverse platform of renewables and energy efficiency and establish a blueprint for other SIDS. Outcomes: Policy De-risking Measures – Island-wide de-risked enabling environment for low GHG development through innovative policy tools; Institutional and Technical Capacity – Strengthened island capacity for integrated low GHG technical and operational planning and coordination; Investment Projects and Financial Mechanisms – Catalyzed island funding for low GHG technology deployment.

Programme Period:	2012-2016
Atlas Award ID:	00089334
Project ID:	00095631
PIMS #	5526
Start date:	1 Nov 2015
End Date	31 Oct 2018
Management Arrangements	NGO implemented
PAC Meeting Date	24 Sept 2015

Total resources required	**306,376,484**
Total allocated resources:	306,326,484
○ GEF	1,826,484
○ CWR	3,000,000
○ OPIC	300,000,000
○ RMI	1,350,000
○ UNDP (in kind)	200,000

[1] For UNDP supported GEF funded projects as this includes GEF-specific requirements

Agreed by (Executing Entity/Implementing Partner):

18/01/2016

Date/Month/Year

Agreed by (UNDP):

15/01/2016

Date/Month/Year

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ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
APR	Annual Progress Report
AWP	Annual Work Plan
BAU	Business-as-usual
BMUB	Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety of Germany
BPoA	Barbados Programme of Action
BTOR	Back to Office Report
CARICOM	Caribbean Community Secretariat
CARILEC	Caribbean Electric Utility Services Corporation
CCCCC	Caribbean Community Climate Change Centre
CCM	climate change mitigation
CIPORE	Caribbean Information Platform on Renewable Energy
CDB	Caribbean Development Bank
CEIS	Caribbean Energy Information System
CO_2	carbon dioxide
CoP	Community of Practice
COP	(UNFCCC) Conference of the Parties
CPAP	Country Programme Action Plan
CREF	Caribbean Renewable Energy Forum
DOE	(US) Department of Energy
DPC	Direct Project Cost
ECERA	Eastern Caribbean Energy Regulatory Authority
ECPA	Energy Climate Partnership of the Americas
EE	energy efficiency
EIA	Environmental Impact Assessment
EOP	End of Project
ERBM	Enhanced Results-Based Management
ERC	UNDP Evaluation Resource Center
ESCO	energy service company or energy savings company
EU	European Union
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gases
GMS	General Management Support
GoB	Government of Barbados
GWh	Gigawatt-hour
HACT	Harmonized Approach to Cash Transfer
IDB	Inter-American Development Bank
IEA	International Energy Agency
IFIs	International Financial Institutions
IRENA	International Renewable Energy Agency

Acronym	Meaning
KM	knowledge management
kWh	Kilowatt-hour
LAC	Latin America and the Caribbean
LDCF	Least Developed Country Fund
M&E	Monitoring and Evaluation
MSI	Mauritius Strategy for the further Implementation of the BPoA
MWh	Megawatt-hour
NAMA	Nationally Appropriate Mitigation Actions
NGOs	Non-governmental organizations
O&M	Operation and maintenance
OAS	Organization of American States
OECS	Organization of Eastern Caribbean States
OFP	Operational Focal Point
OPIC	Overseas Private Investment Corporation
PAC	Project Appraisal Committee
PB	Project Board
PIF	Project Identification Form
PIR	Project Implementation Report
PMC	Project management costs
PMU	Project Management Unit
PPA	Power purchase agreement
ProDoc	UNDP Project Document
PV	Photovoltaic
QPR	Quarterly Progress Report
RCMs	Resource Conservations Measures
RCU	Regional Coordinating Unit
RE	Renewable energy
RET	Renewable energy technology
RFP	Request for Proposals
RMI	Rocky Mountain Institute
S.A.M.O.A	SIDS Accelerated Modalities of Action
SBAA	Standard Basic Assistance Agreement
SCCF	Special Climate Change Fund
SE4ALL	Sustainable Energy for All Initiative
SIDS	Small island developing states
SIDS-DOCK	SIDS sustainable energy initiative – Island Energy for Island Life
SRO	UNDP's Sub Regional Office for Barbados and the OECS
TIC	Ten Island Challenge
TOR	Terms of Reference
UNCSD	United Nations Conference on Sustainable Development
UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
UNEP	United Nations Environment Programme

Acronym	Meaning
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank

1. SITUATION ANALYSIS

1.1 Context and global significance: Environmental, policy and institutional

Most Caribbean islands import oil for the bulk of their electricity needs, exposing these countries to the volatility of international markets and all of the associated economic consequences. Local generation plants are often old and a major source of greenhouse gas emissions, while the islands' greatest indigenous energy resources – the sun and the wind – remain untapped. Building a sustainable energy infrastructure, however, is challenging. Even in the most developed countries, large-scale investment in renewable energy requires a supportive policy and economic climate. But if the right framework can be put in place, renewable power can be cost-competitive with traditional electricity generation. This is particularly true in the Caribbean, where electricity can cost as much as US$0.50/kWh.

For instance, Saint Lucia imports almost 100% of its oil needed to run its sole power plant on the island. According to the Caribbean Electricity Service Corporation (CARILEC), electricity prices average at least US$0.34/kWh, in a context where the average annual household income is US$12,800 (2011).[2] The dependence on imported fossil fuels is a familiar story throughout the region and the lack of diversified resources leaves the Caribbean islands greatly constrained in its economic opportunities – see Figure 1[3] with global comparisons.

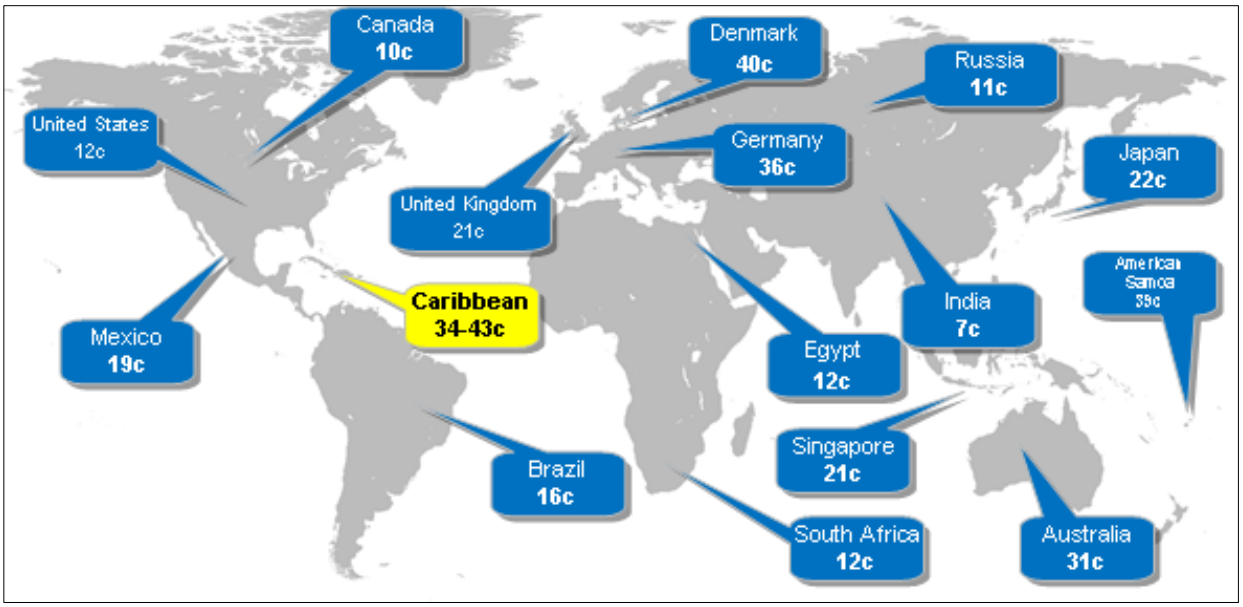


Figure 1. Average price of electricity (US cents/kWh).

1.2 Baseline analysis

Solar and wind generation profiles are strong throughout the region. For instance, solar irradiance is steady throughout the year due to the limited variation in daylight across seasons. Meanwhile, wind speeds are strong and reliable, providing highly attractive capacity factors for wind farms. Furthermore, some Caribbean countries also have untapped bioenergy, hydrology and geothermal potential. This combination of local resources creates both a strong incentive for Caribbean governments to transition to renewables and a large potential market for investment.

[2] http://www.indexmundi.com/saint_lucia/gdp_per_capita_(ppp).html

3 Sources: IEA, EIA, IDB and national data

The Carbon War Room (CWR) has been involved in the island economies for several years. When the Smart Island Economies operation launched in Rio+20, the CWR made a commitment to work with ten islands by 2014, and the first phase of this Ten Island Challenge (TIC) has focused on the Caribbean. In February of 2014, CWR organized the Creating Climate Wealth (CCW) summit in the British Virgin Islands. This event brought together governments from across the region with top tier renewable energy providers, finance institutions and other experts in the renewable space. The event also set out practical steps for local officials to address energy issues right now, and it's these commitments the CWR wants to build upon in the next phase of work. Using the US Department of Energy Transition Initiative Islands Playbook (hereafter "the Islands Playbook") (a template that allows for standardization of innovative approaches across islands with the flexibility of applying its phases to island-specific circumstances) each participating country is being engaged through (Phase 1) their government representatives (e.g. Office of Prime Minister, Energy, Finance and Environment ministries) to assess the specific circumstances of their commitment (e.g. targets behind each vision and goals set); and (Phases 2-5), through their private sector and communities (e.g. developers, installers, beneficiaries) applying both policy and financial de-risking mechanisms to realize the investment opportunities to address the specific needs of each signatory island. Several clean energy initiatives are underway in the Caribbean, with commitments made by individual countries, including:

i. Aruba
    a. Evaluation of lessons learned and development of a roadmap for renewable energy solutions for the island, *Smart Growth Pathways.*
ii. St Lucia
    a. Initiate and manage RFP process for solar and waste-to-energy projects
    b. Develop corporate engagement protocol and stakeholder map as a first step to build local support for project investments
iii. Colombia (specifically targeting the islands of San Andres and Providencia)
    a. Create energy efficiency retrofits for hospitals on each island
    b. Review the island renewable supply plan
    c. Review San Andres Waste to Energy plant and identify barriers to start-up

The project is expected to contribute to a reduction of Caribbean island dependence on fossil fuel-generated electricity through the deployment of wind, solar and energy storage technologies and efficiency improvements in island-wide economies, with a particular focus on the health sector, replicable to other sectors and industries. The proposed approach intends to address the technical, policy and financing weaknesses underscored below.

1.3 Barrier analysis

With its tremendous wind, solar and (in some cases) hydro and geothermal resources, the Caribbean region has the opportunity to take a low emission climate resilient development path. Substantial barriers remain, however, the type of barriers that hinder renewable energy projects in many places around the world, though with the level of complexity typically faced by small island development states, as are described in the Table 1.

Table 1. Barrier analysis.

Barrier type	Barrier Descriptions
Regulatory Policy / Legal: Limited capacity to enforce island-wide clean energy policies and regulations	Limited data on energy demand and consumption for example as pertains to the public/private sector differentials in usage, household demand and consumption patterns by gender etc.- to inform policy development on energy sector regulation and the implementation of clean energy targets. Limited mainstreaming of clean energy targets into national development plans and limited policy to direct implementation and monitoring of progress towards meeting targets Absence of clarity on licensing processes and billing arrangements for off-grid/on-grid/self-generation Absence of clearly defined monitoring tools and associated penalties for not meeting renewable energy targets in national energy policies Need to expand market transformation policies to encourage compliance with renewable energy targets through, for example, financial incentives where possible and provision of support to sector specific procurement programmes of cost effective energy efficient appliances and technologies. Limited enforcement of energy performance standards for RETs and EE equipment No restrictions on the quality and other features of RETs/EETs (e.g. life-cycle costs) Lack of uniform island-wide net-metering and grid interconnection standards No building codes for solar and energy storage technology installations
Institutional / Technical: Lack of coordination and expertise in adoption of island-wide clean energy technologies	Limited technical expertise in public sector institutions (particularly in the Caribbean health sector) tasked to oversee electricity equipment purchases and performance (e.g. quality standards, cost-benefit analysis) Limited institutional mechanisms to ensure coordination of complementary activities and reduce duplication. Energy officials – both in government and in utilities – have no forum or peer-to-peer infrastructure in which to share experience related to implementing sustainable energy policies and projects Lack of critical mass of certified RE/EE students, installers and entrepreneurs to address the demand for energy savings and performance contracts (i.e. ESCOs) required
Market / Financial: High credit, market and other operational risk perception affects island-wide clean energy financing	Lack of established partnerships between Government and Private Sector suppliers of energy efficient technologies for addressing the least adaptive sectors for example the health sector Lack of fiscal, economic or other financial incentives to promote low carbon development investments, and dedicated grants and loans for relevant research, development and adoption of clean energy technologies appropriate for the Caribbean context Despite high electricity costs (nearly US$0.34-0.43/kWh) across the Caribbean, the upfront cost of RETs & EE deters investment in cleaner energy/electricity efficient equipment (particularly in health centers), and infrastructure (i.e. grid instability to feed in RE)

Barrier type	Barrier Descriptions
	Higher-quality EE & RE products are too expensive, so most hospitals buy conventional incandescent lamps, inefficient air conditioning, and cheaper/lower quality solar PV panels Each island's economy is relatively small, and if one island can implement a successful program (e.g.: Aruba), there are few avenues for spreading that experience

Overall, some of these constraints are technical (e.g. caution is needed when wind farms are being developed in places where hurricane force winds are common and can damage blades). Some are policy or regulatory (e.g. land acquisition policies can make it challenging to obtain the space needed for solar and wind projects). In some cases, utilities have secured long-term monopolistic contracts that provide few incentives to develop more economical energy sources. Perhaps most important, however, is the fact that these islands are small economies, and it can be difficult to attract investor interest and the capital needed to construct these facilities. If these barriers included low or subsidized energy prices, there might be very little that could be done. But because energy costs are so high in the Caribbean, renewable energy and energy efficiency investments can start out by being more competitive.

1.4 Global environmental benefits

The corresponding global environmental benefits associated with the project outcomes are estimated in the Table 2, with the final figures (including the basis to determine indirect benefits and their attribution to this project) to be confirmed during the preparation phase (at the CEO endorsement stage).

Table 2. Greenhouse gas emissions avoided.

Activity	Total MW Committed and/or Installed (70% of which is wind and PV)	Average Capacity Factor (%)	Average Emissions Factor (tCO_2/MWH)	tCO_2 reduced
Wind, PV, energy storage projects in 2015	40 (28)	22	0.84	45,328
Wind, PV, energy storage projects in 2016	100 (70)	22	0.84	113,319
Wind, PV, energy storage projects in 2017)	280 (196)	22	0.84	317,294
TOTAL Committed and/or Installed	400 (294 PV/wind)	22	0.84	475,941
TOTAL Installed	85	22	0.84	137,602

Direct emissions: annual average 137,602 tCO_2 reduced at project end (associated with 85 MW wind/PV installed capacity) result in 1,376,020 tCO_2 total reduced following the $2 million GEF intervention (assuming a conservative 10-year useful investment lifetime): US$1.42/$tCO_2$

Indirect emissions: The bottom up indirect emission reductions have been estimated with the formula $CO2_{INDIRECTBU} = CO2_{DIRECT} * RF$. Assuming a market-transformation Replication Factor (RF) of 3, therefore, $CO2_{INDIRECTBU} = 137,602 * 3 = 412,806$ tonnes

The top down indirect emission reductions have been estimated with the formula $CO2_{INDIRECTTD}$ = P10 * CF, with P10 being the technical and economic potential of a 600 MW wind/PV market in the 10 years following the end of the project, and a Causality Factor (CF) associated with GEF intervention of 60%. Therefore, $CO2_{INDIRECTTD}$ = 830,027* 0.6 = 498,017 tonnes

Emissions reduced: 137,602 tCO_2 (direct) + 910,823tCO_2 (indirect) = 1,048,425 tCO_2 (total)

NB: These figures do not include savings from energy efficiency programs and exclude any additional MWh that can be supplied to the grid through energy storage investments.

1.6 Stakeholder analysis

Stakeholder communities will be involved at every step of the process, including project planning and design, project implementation and project monitoring and evaluation. As an initial step, CWR will conduct a thorough community stakeholder mapping and engagement exercise.

The objective will be to identify, map and engage relevant audiences and champions (local and international) in this effort. Local support of stakeholders will be critical to accelerating all of the steps needed to bring the vision to reality. Conversely, a poor stakeholder outreach strategy that leaves key players out of the process can lead to opposition, delay and ultimate failure of the entire effort.

Constructive stakeholder engagement will therefore be critical, and at every step of the process, local community groups, environmental organizations, business and trade associations and others will be invited to comment on the overall vision of the program, as well as specific opportunities identified throughout the phases. Some of the key stakeholder groups are listed in Table 3.

Table 3. Stakeholder groups.

	On-Island	Off-Island
Primary	Government decision makers Utility executives Influencers and local champions Universities	Financiers and investors Multinational renewable energy and energy efficiency companies
Secondary	Citizens Incumbent utility employees Local businesses, including developers Private sector - Hotels and other local tourism businesses Church groups Grassroots groups Local media	Commercial vendors and consultants Regional media Multilaterals Tourism industry corporate HQ (cruise companies, large hotel chains etc.) Energy NGOs, non-profits
Tertiary	Energy sector labor force	Foreign governments and other donors Replicators Caribbean diaspora Small island nations' governments Tourists

The long-term success of the Ten Island Challenge as part of the Caribbean Energy Transition will hinge on whether the people of the island partners feel like the efforts undertaken not only respond to their needs and concerns, but capitalize on their active involvement. It is critical, therefore, to ensure at each step that key stakeholders and the public has been engaged in planning and execution. Prior to finalizing and implementing a communications approach on each island, CWR, RMI, and DOE will meet with government,

utilities, NGOs and citizens to identify key stakeholders, influencers and local champions, who have a vested interest in and/or an out-sized influence on the outcome. These discussions will focus on areas that are anticipated to have the largest impact on success, namely, financial, political, environmental, and social justice concerns.

Specific members of the audiences described above will be actively gleaned from interviews, as well as from “passive” sources, traditional and new media, speeches, annual reports, and other publications. A set of basic interview questions will be developed to elicit open-ended responses to capture stakeholder knowledge, interests, and positions, along with contact info on an as-needed basis. By identifying preferences and priorities, this stakeholder engagement will inform the local communications strategy, anticipate other operational issues, and, ultimately shape the path and outcome in that particular location. While public input will be solicited on a continuous basis, discrete stakeholder analysis and engagement will take place in Phases 1-3 with priorities and scope adjusted to suit the relevant phase.

During the development and implementation of this initiative, CWR/RMI with support from UNDP will consult with key stakeholders and convene a series of in-depth discussions in each country to enable government representatives, civil society, academia as well as the donor community to provide their views on the overall scope of the project. These views will be used by the project implementation team to fine tune and devise annual operational work plans that are fully aligned with other ongoing and planned initiatives. Consultations and agreements with key stakeholders including Government as well as utilities, the private sector, and national beneficiaries and communities will be sought after throughout the process.

2 STRATEGY

2.1 Project rationale and policy conformity

The 2010 UNFCCC Cancun Agreements (COP16) on climate change provided that "developing country Parties will take nationally appropriate mitigation actions (NAMAs) in the context of sustainable development, supported and enabled by technology, financing and capacity-building, aimed at achieving a deviation in emissions relative to 'business as usual' emissions in 2020.

At the UNFCCC Session in Durban (COP17) parties adopted a decision on National Adaptation Plans (NAP). These new and emerging instruments are taking hold in the Caribbean, with UNDP-GEF support. In terms of national institutions' capacity on adaptation planning, most Caribbean countries have developed plans for adaptation during the course of National Communications and Technology Needs Assessments. This project will seek integration between energy and climate change interventions (across the low emission and resilience spectrum).

In addition, the 2012 "Barbados Declaration" included 22 voluntary commitments from Small Island Developing States (SIDS) contributing to the Sustainable Energy for All (SE4ALL) initiative, reiterated at the UNCSD Rio+20 Conference. The Ten Island Challenge initiative will support these goals. Meanwhile, Caribbean countries are focusing their post-2015 long-term sustainable development strategies on the principles of climate risk management and resilience building - understood as market transformations based on "adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts".

The Caribbean Community Climate Change Centre (CCCCC) has been designated by CARICOM Heads of Government as the regional coordinating agency for the response to climate change, guided by the Regional Framework for Achieving Development Resilient to Climate Change 2011-2021 and its Implementation Plan[4], as well as a repository for regional climate change information and data. The Regional Framework's vision of a "regional society and economy that is resilient to a changing climate" is viewed as requiring a multi-disciplinary multi-stakeholder multi-sector approach, underpinned by the following strategies:

- Promoting actions to reduce greenhouse gas emissions through energy reduction and conservation, and switching to renewable and cleaner sources of energy;
- Promoting actions to minimise the effects of greenhouse gas emissions through initiatives and measures designed to reduce the vulnerability of natural and human systems to the effects of climate change (e.g., flood defences, and changing land use patterns);
- Promoting the development and implementation of educational and public awareness programmes as well as public access to information and citizen participation across the Caribbean region;
- Building the CCCCC's organisational capacity to manage adaptation to climate change, through training of scientific, technical, and managerial personnel; institutional strengthening; providing systematic long-term technical assistance; and strengthening information support capacity that allows the CCCCC to effectively support the Member States; and
- Promoting the dissemination of successful adaptation experiences to address the impacts of climate change on: water supply; coastal and marine ecosystems; tourism; coastal infrastructure; and health

Within the context of the Implementation Plan, this project proposes to contribute to linking CCA and DRR through strengthened integration in existing institutional structures, increasing understanding among

[4] http://www.caribbeanclimate.bz/ongoing-projects/2009-2021-regional-planning-for-climate-compatible-development-in-the-region.html

stakeholders of risk and its impact on sustainable development, improved early warning systems, and coordinated training and education.

The CARICOM Regional Energy Policy[5], approved in 2013, has as its goal the "fundamental transformation of the energy sectors of the Member States of the Community through the provision of secure and sustainable supplies of energy in a manner which minimises energy waste in all sectors, to ensure that all CARICOM citizens have access to modern, clean and reliable energy supplies at affordable and stable prices, and to facilitate the growth of internationally-competitive regional industries towards achieving sustainable development of the Community". Among its 14 objectives are diversification of energy supplies, including accelerated deployment of renewable energy, labelling and standards; energy security during disasters; and strengthening research, development and innovation.

2.2 Country ownership: country eligibility and country drivenness

The priority to invest in measures that result in the necessary market transformations for addressing long-term climate change needs is reflected in the "Barbados Programme of Action (BPoA)", reaffirmed in the "Mauritius Strategy for the further Implementation of the BPoA (MSI)", and reaffirmed in the 3rd International SIDS Conference SIDS Accelerated Modalities of Action (SAMOA) Pathway.

The project is consistent with key mitigation priorities (e.g. fossil-fuel dependence reduction in energy generation and distribution, mainly in the electricity and transport sectors) as indicated in national communications throughout the Caribbean; as well as, equipment applications (e.g. including wind turbines, solar PV panels and battery-based electricity storage) identified in technology needs assessments for SIDS. The project will seek to align its interventions with concrete technology action plans and mitigation options, selected by the GEF program countries with which preliminary discussions have started (Bahamas, Belize, Colombian islands, Grenada, Saint Lucia, Saint Kitts and Nevis, and Saint Vincent and the Grenadines) once their participation is confirmed. The project will therefore identify relevant stakeholders in government departments, utilities and NGOs in each country and fully engage each of these relevant groups as part of the decision-making framework for project implementation. National programming will be developed with feedback developed through the proposed Community of Practice.

2.3 Design principles and strategic considerations

The small island developing states in the Caribbean region are the ideal combination of geographical scale and renewable potential to demonstrate system-wide, sustainable solutions across an entire economy, and collectively show that this transition is both replicable and scalable. A commitment to demonstrate success with partners in the Caribbean - applying best practices and lessons learned - underpins the focus of this execution strategy, with the intention of providing replicable models for other islands and isolated economies.

The 10 Island Challenge will complement or build on existing activities across the region, including the GEF-funded PACES project in St. Vincent and the Grenadines, as well as the regional RE and EE activities under the Caribbean Energy Efficiency Lighting and Japan Caribbean Climate Change Partnership projects.

2.4 Project objective, outcomes and outputs/activities

The objective of the Ten Island Challenge (TIC) is to accelerate the transition of Caribbean island economies from heavy dependence on fossil fuels to a diverse platform of renewables and energy efficiency, thereby establishing a blueprint for other isolated economies.

By accelerating the transition of islands to renewable energy sources, national governments can accomplish the following: lower electricity costs in the household and industry sectors; increased private

[5] http://www.caricom.org/jsp/community_organs/energy_programme/CARICOM_energy_policy_march_2013.pdf

investment on-island with the introduction of more and higher skilled jobs; lower GHGs and less local pollution; improved energy efficiency across different sectors and less money spent on fuel.

For this initiative, CWR will track the following key performance targets as a way of measuring success. The overall goal will be to have the islands participating in the program achieve renewable energy penetration that amounts to 20-50% share of RE in the power generation mix by 2030.

Outcome 1. Policy De-risking Measures:	Island-wide de-risked enabling environment for low GHG development through the demonstration of innovative policy tools
Output 1.1 Clean energy action plans to meet Ten Island Challenge targets in the Caribbean developed:	Goals and vision statements for each island participant with commitments and resources to meet them Renewable energy and energy efficiency strategies and assessments on selected islands with specific targets that are inclusive, gender responsive and human rights-based and include recommendations for clean energy livelihoods initiatives
Output 1.2 Policy de-risking analysis and guidance for Ten Island Challenge countries in the Caribbean provided:	Use of de-risking tools to low carbon energy technologies in the Caribbean context Model twelve possible Resource Conservations Measures (RCMs) for health centers Regional guide development (including support for grid integration and energy efficiency in hospitals) Transformation of the market and regulatory framework to demonstrate effective grid integration or renewable energy resources across the Caribbean

An important challenge for any utility dealing with large-scale renewable energy investments is integrating intermittent resources into the grid. Conventional power plants cannot be brought on and off-line quickly enough in response to changes in wind and solar power production with the changing weather. There are a number of technologies and practices that help mitigate this risk, as well as energy storage options. With smarter grid devices and software – combined with changes in government policy and utility practice – the grid infrastructure can do a better job absorbing intermittent energy supplies with minimal curtailment or risk to power lines, transformers, etc. CWR will put together a resource guide with case studies (including the use of innovative technology and the design instructive policy and regulatory changes) that demonstrate effective grid integration of renewable resources. This analysis will be tailored to the Caribbean context and will offer practical advice and guidance to utilities, regulators, private developers and others seeking to ensure that as many MW of renewable energy can be delivered through the grid as possible.

Based on the available data points and interviews with hospital/health facility officials, CWR will establish a benchmark energy use index for a typical hospital as a foundation for the comparison of building-wide, energy savings potential. The team will model twelve possible Resource Conservations Measures (RCMs) for their savings potential and cost savings and develop a tool to allow properties to input simple property-specific information such as number of beds, age of property and utility rates to construct energy savings scenarios and likely returns on investment. CWR will also develop an Energy Retrofit Guide that addresses a whole building approach and process. The guide will be disseminated across the region, and GEF funding would support dissemination costs.

Outcome 2. Institutional and Technical Capacity:	Strengthened island capacity for integrated low GHG technical and institutional stakeholder planning and coordination

Output 2.1 Caribbean platforms for clean energy technology research, development, transfer and adoption enabled:	Caribbean Energy Transition Community of Practice for government officials, utility and other networking and coordination bodies (e.g. CARILEC, CARICOM, CDB, CCCCC) As part of the COP, a network of young leaders will be created to identify and nurture youth to transition and lead the clean energy sustainable development agenda in the Caribbean The virtual Caribbean energy transition platform will host a number of project related templates including standard Purchasing Power Agreement templates, Standard Engineering, Procurement and Construction contract templates, checklists for bankability, etc. This Community of Practice will support a pipeline of bankable projects that are eligible for financing Gender responsive mechanisms will be put in place to support technology transfer through consultation with an inclusive stakeholder base
Output 2.2 Skills and expertise in island-wide clean energy investment de-risking and market transformation built:	Gender responsive regional workshops and capacity building for knowledge-sharing and lessons learnt Follow-up tools, guidance and materials to measure and ensure the impact of capacity interventions

To facilitate the sharing of knowledge, tools and technology across the participating countries – and build the capacity of utility and government officials with grid integration – a sustainable community of practice (CoP) and on-line forum will be created. This CoP will be a peer network and target utility engineers, government energy practitioners and development partners active in the renewable space. With a range of on-line resources, discussion fora and in-person meetings, the CoP will promote and facilitate a culture of information sharing. The result of this cross-fertilization of ideas and experience will be to build the capacity and inform decision making across the network about how best to solve the barriers that inhibit the growth of renewable energy generation. Training workshops that include utility and government leaders from all participants in the Ten Island Challenge (TIC), with all associated materials and follow-up to measure impact of these events.

As part of the CoP, a network of young leaders will be created to support the identification and nurturing of youth who are keen to lead the energy agenda in the region and ensure that energy transition is sustainable. The network will help:

- Strengthen the learning platform for the Caribbean Energy Transition;
- Highlight the leadership on the energy agenda that Caribbean islands are keen to demonstrate;
- Highlight the position of islands leading the demonstration of solutions to climate change;
- Establish an engagement programme specifically designed for the region, led by young individuals from the region; and
- Build on the innovation from this generation of leaders to develop a framework for the future of sustainable energy and economic growth.
- Encourage the active participation of women and girls in all aspects of the renewable and energy efficiency space

The virtual Caribbean Energy Transition Community of Practice will host a number of project related templates including standard Purchasing Power Agreement templates, standard Engineering, Procurement and Construction contract templates, checklists for bankability, etc. This virtual platform will facilitate knowledge around the steps, studies and information required to support a bankable renewable project.

Skills-training workshops will be gender-responsive by mainstreaming the role of women in the RE/EE space. Women will be trained and equipped with the knowledge and skills necessary to transition into, or develop further in the RE/EE space.

Outcome 3. Investment Projects and Financial Mechanisms:	Catalyzed island funding for low GHG technology deployment.
Output 3.1 Caribbean energy resource capacity established:	Ten Island Challenge-wide gender responsive renewable energy assessments, feasibilities and analyses. Resource technical, economic and financial potential
Output 3.2 Clean energy island-wide investments leveraged:	De-risked equity/lending structures and other financing mechanisms to deliver on Caribbean clean energy targets Feasible investment project pipeline (400 MW) across Ten Island Challenge participant countries applying the Islands Playbook Plans for clean energy operation and maintenance in place Goals and vision statements for each island participant that outlines the overall goal for the island (X% of renewable energy by Year Y) with a commitment of staff and other resources needed to meet that commitment (Phase 1 and 2 of Islands Playbook). Development of investments that take account of the varying needs of rural communities and marginalized groups.

The success of this project will be evaluated in large part by the number of MW of renewable energy generation (as well as MW saved through efficiency) developed under the project. This work will involve island-wide, renewable energy assessments, including renewable resource potential, technical/economic assessments of individual projects, feeder specific grid integration studies and potential equity/lending structures to present to investors and lending institutions. Operation and maintenance plans are included as well (Phase 3-6 of the Islands Playbook). Phase 3 (Project preparation) involves the identification and prioritization of bankable projects, further to the confirmation of country level commitments (Phase 2). As such, the main criteria for pipeline selection will be geographical distribution across participant TIC islands. The pipeline results from: (a) the set-up of project development guidelines, (b) RE project development best-practices, (c) project risk mitigation; leading to, (d) the preparation of request for proposals (RFP), (e) the selection and negotiation with selected vendor(s), and finally (f) the commercial agreement and financing for the project to start. The Table 4 lists the preliminary capacity and project pipeline targets that have been set during the project period:

Table 4. Installed and committed capacity targets.

Activity (70% of which is wind and PV)	Total MW Installed and Committed
Wind, PV, energy storage projects in 2015	40 (28)
Wind, PV, energy storage projects in 2016	100 (70)
Wind, PV, energy storage projects in 2017	280 (196)
TOTAL (Installed and Committed)	400 (294 PV/wind)[6]
TOTAL (Installed)	85 MW

6 This figure includes 106 MW target for energy storage (mainly electricity battery-based type, with potential thermal water heating applications) estimated to trigger of $79.5m of investment (i.e. $0.8-0.9m per MW installed).

2.5 Key indicators

Table 5 contains the key indicators of the project with goals for each. Risk analysis for the project can be found in ANNEX II – Environmental and Social Screening, and ANNEX VII – Risk Analysis. According to the SESP, the overall project risk categorization of the project is low.

Table 5. Key indicators.

Metric of Success	Goal
The number of countries adopting and implementing the Ten Island Challenge Execution Strategy.	10 Countries signed on by mid-2015
Reduction in volume of fossil fuels imported in participating Caribbean countries	20% reduction in total fossil fuel imported in participating Caribbean countries by 2018
The number of countries utilizing the different components of the Caribbean Energy Transition Community of Practice platform.	10 countries actively using the Caribbean Energy Transition Community of Practice platform by 2016
Amount of capital injected into the region for clean energy projects.	Over $63 million during the first 4 years
Renewable electricity, energy efficiency, or highly efficient generating capacity added in Caribbean partner countries.	85 MW of wind and solar installed between 2015-2017
Employment created equally targeting women and men through appropriate capacity building and promotion activities, salaries generated and other benefits that go directly into supporting the local economy.	700-1,000 jobs/beneficiaries estimated (no. of people, % in O&M/direct jobs, % indirect jobs)
Coverage of cost-efficient and sustainable energy, disaggregated by energy source and beneficiary, sex, and excluded groups	20-50% share of renewable sources into Caribbean electricity mix by 2030
Number of active partnerships that target women's access to environmental goods and services	20-50%increase in women accessing environmental goods and services
Number of youth involved in Youth Leaders network within functioning Community of Practice	Community of Practice established
The number of Resource Conservation Measures (RCMs) modeled for hospitals and health centers	12 possible RCMs modeled for health centers and hospitals

2.6 Financial modality

The project will work to leverage the capacities of local organizations; as well as regional organizations in particular, such as the CCCCC, drawing on its scientific and technical mandate; CARICOM, drawing on its mandate for coordination; and the CDB, drawing on its financial assistance available throughout the region (particularly in OECS countries). Of particular note is CARILEC, whose member utilities will benefit from the training and information sharing related to creating a new utility model, one based on renewable energy resource development.

The project will bring a number of funding resources, both in-kind and cash contributions. Of particular note is the Dutch Postal Code Lottery. This funder has been crucial in providing the staff time required to set up the program, as well as pay for the numerous consultants required, such as DNV GL. This funding will also help to develop scopes of work for utilities and other technical work, as well as workshop and travel costs and other incurred expenses.

Further to the application of the UNDP-GEF clean energy de-risking and market transformation approach in the context of the Caribbean, a pipeline of leveraged financing (current US$63 million estimate) and island-wide investments (85 MW expected in the region) is expected as a result of this project.

2.7 Cost-effectiveness

Expected outcomes and outputs under each project component consider cost-effective activities to achieve them (Table 6). Starting with the policy de-risking measures, the suggested design considers the need to promote Caribbean-wide approaches to create the enabling environment, instead of promoting national enforcement interventions across islands isolated from one another. The proposed involvement of CARILEC from the formulation stage reflects on the economies of scale of engaging a key regional counterpart instead of individual country utilities. The CDB and CCCCC are also critical stakeholders during the implementation given the need to channel significant financial resources to the Caribbean (of particular relevance for OECS islands that do not have direct funding access to the IDB or several other international financial institutions) and ensure consistency of renewable energy targets with regional technical and scientific guidance from the designated CARICOM institution.

Table 6. Business-As-Usual vs. GEF Alternative

Project Outcome	Business-As-Usual	GEF Alternative
1. Island-wide de-risked enabling environment for low GHG development through the demonstration of innovative policy tools	Whatever renewable energy policies, programs or practices are developed and applied remain isolated with limited fora for discussion or action surrounding how these efforts to minimize the curtailment of RE sources can be replicated in other islands.	Policy de-risking measures promote the introduction, enforcement and dissemination of licensing, net billing, audit inspection, certification and minimum energy performance standards of RE and EE equipment, systems and products in the health and other economic sectors key to Caribbean sustainable development efforts (i.e. employment creation, resilient health coverage, youth and women empowerment). Innovative best practices that anticipate changes in PV/wind supply, and reduce voltage fluctuations, are shared amongst utilities across the region. Ongoing work builds on the lessons learned and progress made in the regional space by identifying upscaling and complementary opportunities with projects such as the Promoting Access to Clean Energy Systems (PACES) and the Disaster Risk and Energy Access Management (DREAM)
$1,955,000	$1,775,000	$180,000
2. Strengthened island capacity for integrated low GHG technical and institutional stakeholder planning and coordination	Utility officials and government leaders have limited capacity to craft the policies and create the overall environment that will encourage project development (e.g. assessing renewable energy resources, and adopting other regulations that help reduce risks for project developers)	The Community of Practice that creates the infrastructure to bring isolated islands together. Through in-person meetings, web-based resources and regional conferences and workshops, whatever happens in one island will be quickly known everywhere in the region (from projects implemented and policies adopted, to private companies investing and banks' lending). Regional and in-country workshops to build this capacity, so local officials are more familiar and comfortable with all of the aspects of implementing renewable energy and energy efficiency projects/programs. With greater familiarity of the benefits of non-fossil fuel projects – as well as how these projects can be developed – utility and government leaders will be more willing and interested in moving forward to reduce reliance on fossil fuels.

Project Outcome	Business-As-Usual	GEF Alternative
		This infrastructure leverages the networks created by previous and ongoing work across the region from the Young Leaders of the Americas Initiative (YLAI), Caribbean Youth Empowerment Programme (CYEP), the Youth-IN project and similar programmes. Vulnerable groups are engaged through the development of a network of young leaders and gender mainstreaming activities.
$645,000	$375,000	$270,000
3. Catalyzed island funding for low GHG technology deployment	Utility grids are accustomed to conventional, base-load energy resources. Renewable energy projects may not be pursued because it is difficult to integrate intermittent resources into the grid, particularly from small, distributed generated resources. Hospitals, one of the critical emergency service providers, continue to use cost-inefficient energy technology.	Financial de-risking approaches catalyze and leverage wind, solar and energy storage projects (400 MW installed capacity) in the countries participating in the Ten Island Challenge, with the potential of over $63 million in investment over a four-year period. Storage options, which are experiencing significant price reductions, will also be explored – all of which will provide utility engineers with practical and creative ways to enhance grid integration. Accelerated project adoption with a guide that reduces perceived risks and directs retrofit efforts towards proven, low-risk projects and practices. Leverage existing resources in the region to create a guide specific to Caribbean building types, materials, climate and economic considerations.
$303,726,484	$302,400,000 (incl. PMC)	$1,326,484(incl. PMC)
$306,326,484	$304,550,000 *(incl. PMC)*	$1,776,484 *(incl. PMC)*

Further, the strengthening of institutional and technical capacities proposed by the project learns from previous GEF-funded interventions at the country level, which sometimes lack coordination at the regional level, in order to accelerate the transition to renewables in the Caribbean. The cost-effectiveness of the knowledge management, technology transfer and skills training promoted under the Community of Practice and the Young Leaders Network reflects on the need to undertake these and other related peer-to-peer activities through existing regional platforms (e.g. CARICOM Energy Week, CIPORE, CREF or CEIS, amongst others), not creating new ones.

Finally, the investment portfolio to be catalyzed through GEF involvement learns from experiences of using subsidies and demonstration pilots in the region with isolated results. The Ten Island Challenge approach is an integral part of the project design, relying significantly on Caribbean private sector engagement and international financial leverage. A direct result of the participation of OPIC and other IFIs is the opportunity of using GEF funding to apply de-risking approaches in the Caribbean context, with economies of scope in promoting SIDS-appropriate renewable energy technology, and economies of scale in accelerating the transition across islands.

Thus, the project's de-risking approach at the current design stage estimates abated costs in the range of US$1.45/$tCO_2$ as a result of the GEF-funded intervention (targeting 85 MW of installed clean energy capacity through the Ten Island Challenge), with a prospect of US$0.14/$tCO_2$ as the Caribbean renewable markets continue their path away from fossil fuels (estimating additional installed wind/PV capacity of 600MW).

2.8 Sustainability

The project interventions will continue after the three-year GEF-funded period, because the existing networks – the Young Leaders group and the Community of Practice, for example – will continue to exist, as will the experience and capacity developed under the project. This experience will make it easier to expand renewable energy penetration on the islands beyond the 30% target, as well as start projects on other islands. In addition, the knowledge created by the resources developed under the program, including the hospital guide, will continue to be relevant long after the GEF project is completed.

2.9 Replicability

The goal of this project is to create a template for all isolated island economies throughout the world, as well as make the Islands Playbook available and applicable anywhere. In addition, if private investors and lending institutions can be convinced that the Caribbean market is a viable opportunity, it will be much easier for other countries not in the Ten Island Challenge to develop sustainable energy projects and raise the necessary capital to finance them. If this program can succeed, local officials will be more likely to believe that such an initiative will work on their island, whether in the Caribbean or elsewhere. The Carbon War Room, through its Smart Island Economies program, will have the infrastructure in place to be able to expand the lessons learned from this experience well beyond the initial Ten Island Challenge participants.

This project will leverage the work of several local partners, including regional institutions such as the CCCCC (designated by CARICOM to provide technical assistance and scientific guidance on climate change implementation in the region) and the Caribbean Development Bank (a primary vehicle for financial support to non-IDB members such as OECS countries, amongst other islands), CARILEC, IRENA and the newly-established renewable energy and energy efficiency hub Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE) . CWR's effort will not be duplicative however, and will complement the strengths of these partners. While many of these institutions and associations have excellent local connections, CWR's comparative advantage will be to bring in technical expertise from its partners, such as RMI and US DOE, as well as the private sector. CWR and its partners can provide all of the technical and business advisory services required for this project – from assessing renewable energy potential to identifying actual projects to restructuring viable financing arrangements. This capacity is currently lacking in most island countries.

2.10 Innovativeness

In terms of innovation, this project will demonstrate how renewable energy projects, supported through regional networking and capacity building exercises, can demonstrably change the energy resource mix of an entire country. Through a combination of technical, legal and business advisory services, the CWR will bring bankable projects to the market, in turn, creating a competitive renewable market. This will be supported from a bottom up approach through the Community of Practice. This will create a catalytic combination of activities, which will collectively support business and government. This is also in line with UNDP-GEF de-risking approach, because the Ten Island Challenge will demonstrate how capacity building, policy interventions and project development activities can address a country's macroeconomic risk. This project will trigger an estimated US$63.75 million in investment in renewable energy infrastructure across the islands, making these islands truly innovative models for sustainable development. Finally, the project will demonstrate innovativeness by providing a clear template – the Islands Playbook – which any island can adapt to move towards a more sustainable path. The Islands Playbook Design allows for standardization of innovative approaches across islands with the flexibility of applying of its phases to island-specific circumstances. For instance, visions set (Phase 1) and O&M needs (Phase 5) will vary from country to country, but will receive standard CWR/DOE/RMI technical support to assess opportunities pathways (Phase 2), prepare projects (Phase 3) and quality control/lessons learnt (Phase 4/6).

3 PROJECT RESULTS FRAMEWORK

Primary applicable 2014-2017 UNDP Strategic Plan Key Result Area: Sustainable Development Pathways **Outcome 1: Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded** Indicator 1.3 Annual emissions of carbon dioxide (in million metric tonnes) Indicator 1.4 Coverage of cost-efficient and sustainable energy, disaggregated by rural/urban Output 1.4. Scaled up action on climate change adaptation and mitigation across sectors which is funded and implemented Output 1.5. Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)
Applicable GEF Strategic Objective and Program: GEF-6 CCM-1 Strategic Programs 1 and 2
Applicable GEF Expected Outcomes: Outcomes A, B and C for accelerated adoption of innovative technologies, policy frameworks and financial mechanisms for GHG emission reductions
Applicable GEF Outcome Indicators: Market penetration of on-grid RE (% from renewables) GHG emissions from electricity generation (tons CO_{2eq}/kWh and $/tons CO_{2eq}) no. of jobs/beneficiaries

	Indicator	Baseline	Targets End of Project	Source of verification	Assumptions
Project Objective: [7] To accelerate the transition of Caribbean island economies from heavy dependence on fossil fuels to a diverse platform of RE/EE	▪ Number of countries signed on the Ten Island Challenge ▪ CO_2 emission reductions/year ▪ % share of RE in the power generation mix of TIC countries	▪ 0 ▪ 0 ▪ 1-7%[8]	▪ 10 ▪ 137 ktCO_2 ▪ 20-50%[9]	▪ Project final report ▪ Annual surveys of energy consumption and reductions for each RE project ▪ Electric utility reports on grid penetration ▪ GHG inventories	▪ Economic growth across islands will continue ▪ Island-wide government support for renewables development and utilization will not change
Outcome 1: [10] <u>Policy De-risking Measures</u> Island-wide de-risked enabling environment for low GHG development	• Number of RE/EE strategies and assessments with specific targets • Number of countries where implementation of comprehensive measures (plans, strategies, policies,	• 0 • 0	• 5 • 7	• Gender responsive studies/assessments of de-risking RE/EE investment options	• Island-wide support for policy reform to promote RE continues • Technical capacity to apply tools does not delay adoption of RE policy measures

7 Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR

8 Source: IRENA. Figures range across islands from 1% in Bahamas, to 7% in Grenada

9 Source: Carbon War Room

10 All outcomes monitored annually in the APR/PIR.

	Indicator	Baseline	Targets End of Project	Source of verification	Assumptions
through innovative policy tools	programmes and budgets) to achieve low-emission and climate-resilient development objectives have improved (SP 1.4.2) • Number of islands applying the de-risking method, resource conservation measures and Ten Island Challenge tools • Number of Resource Conservation Measures (RCMs) modelled for health centres	• 0 • 0	• 5 • 12	• Annual project reviews of key performance indicators • Gender responsive national policy or planning documents	
Outcome 2: Institutional and Technical Capacity Strengthened island capacity for integrated low GHG technical and operational planning and coordination	• Number of stakeholder partnerships active in Ten Island Challenge KM platforms disaggregated by sex, by age and by rural and urban • Number of local counterparts with improved capacity to partake in RE/EE developments disaggregated by sex, by age and by rural and urban	• 0 • 10-50[11]	• 2 • 300-800	• Gender responsive workshop and seminar proceedings • Training evaluations by participants	• Local and regional stakeholders continue to be engaged during the various phases of the Ten Island Challenge
Outcome 3: Investment Projects and Financial Mechanisms Catalyzed island funding for low GHG technology deployment	• Installed RE capacity through Ten Island Challenge • Number of jobs and livelihoods/beneficiaries from Ten Island Challenge, disaggregated by sector and sub-sector, by sex, age, and excluded groups and by wage category were available and by rural and urban	• 0 • 0 • $3million • 0	• 85 MW of installed capacity. • 209 MW of committed RE capacity • 700-1,000; 40% women • >US$63 million	• Feasibility studies of RE technologies • Bankable project reports • PPAs and approval permits • Work inspection reports • MOU, grant or loan approvals or other partnership agreements	• Sufficient annual replenishment of RE development funds • Capacity of government does not substantially delay approval of RE policies and RE projects

[11] These personnel are from the Energy Unit

	Indicator	Baseline	Targets End of Project	Source of verification	Assumptions
	• Capital mobilised following support by Ten Island Challenge • Number of new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/groups and women (SP1.5.1)		• 4		

4 TOTAL BUDGET AND WORK PLAN

Award ID:	00089334	Project ID(s):	00095631
Award Title:	The Ten Island Challenge: De-risking the Transition of the Caribbean from Fossil Fuels to Renewables		
Business Unit:	BRB10		
Project Title:	The Ten Island Challenge: De-risking the Transition of the Caribbean from Fossil Fuels to Renewables		
PIMS no.	5526		
Implementing Partner (Executing Agency)	Rocky Mountain Institute/Carbon War Room		

GEF Outcome/Atlas Activity	Implementing Partner	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount (USD) Year 1 2015	Amount (USD) Year 2 2016	Amount (USD) Year 3 2017	Total (USD)	Notes
Project Preparation	**Rocky Mountain Institute/ Carbon War Room**	**62000**	**GEF**	71300	Local Consultants	4,000	0	0	4,000	1
				72400	Communications	1,500	0	0	1,500	2
				71200	International Consultants	41,000	0	0	41,000	3
				71600	Travel	3,500	0	0	3,500	4
					Total GEF Project Preparation	**50,000**	**0**	**0**	**50,000**	
Outcome 1: Policy De-risking Measures – Island-wide de-risked enabling environment for low GHG development through innovative policy tools	**Rocky Mountain Institute/ Carbon War Room**	**62000**	**GEF**	71200	International Consultants	35,000	95,000	0	130,000	5
				71600	Travel	20,000	15,000	0	35,000	6
				72400	Communications	10,000	0	0	10,000	7
				72500	Supplies	5,000	0	0	5,000	8
					Total GEF Outcome 1	**70,000**	**110,000**	**0**	**180,000**	
Outcome 2: Institutional and Technical Capacity – Strengthened island capacity for integrated low GHG technical and operational planning and coordination	**Rocky Mountain Institute/ Carbon War Room**	**62000**	**GEF**	71200	International Consultants	23,000	0	0	23,000	9
				71600	Travel	33,000	20,000	0	53,000	10
				72400	Communications	6,000	6,000	0	12,000	11
				75700	Training, workshops and conferences	35,000	0	0	35,000	12
				71400	Service contractors	40,000	78,000	29,000	147,000	13
					Total GEF Outcome 2	**137,000**	**104,000**	**29,000**	**270,000**	
Outcome 3: Investment Projects and Financial Mechanisms. Catalyzed island funding for low GHG technology deployment	**Rocky Mountain Institute/ Carbon War Room**	**62000**	**GEF**	71200	International Consultants	208,000	85,000	75,000	368,000	14
				72100	Contractual Services	0	205,499	100,000	305,499	15
				71600	Travel	4,000	10,000	15,000	29,000	16
				72300	Materials and Goods	0	160,000	260,000	420,000	17
				75700	Training, workshops and conferences	13,000	0	29,484	42,484	18
					Total GEF Outcome 3	**225,000**	**460,499**	**479,484**	**1,164,983**	

Project management (including M&E)	**Rocky Mountain Institute/ Carbon War Room**	**62000**	**GEF**	71200	International Consultants	0	0	30,000	30,000	19
				71300	Local Consultants	16,499	9,000	5,000	30,499	20
				71600	Travel	10,000	15,000	10,000	35,000	21
				72400	Communications	0	10,000	10,000	20,000	22
				74100	Audit	0	8,000	4,000	12,000	23
				75700	Training, workshops and conferences	10,000	14,000	10,000	34,000	24
					Total GEF Project Management	**36,499**	**56,000**	**69,000**	**161,499**	
					GEF Total	**518,499**	**730,499**	**577,484**	**1,826,484**	

Summary of Funds:

Source of Funding	Amount Year 1	Amount Year 2	Amount Year 3	Total
GEF	**518,499**	**730,499**	**577,484**	**1,826,484**
OPIC	100,000,000	100,000,000	100,000,000	300,000,000
Rocky Mountain Institute/Carbon War Room	2,283,750	1,098,005	968,245	4,350,000
UNDP (in-kind)	50,000	75,000	75,000	200,000
TOTAL	**102,852,249**	**101,903,504**	**101,620,729**	**306,376,484**

Notes

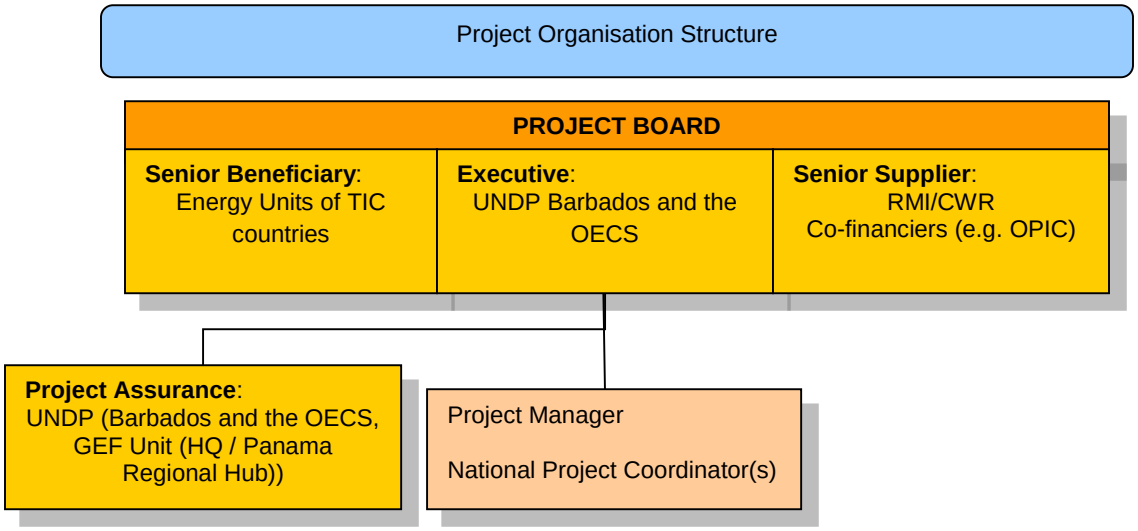
1. Human Resources support
2. Advertising in print media
3. HACT micro-assessment of RMI/CWR; consultant preparatory research and analysis
4. Aruba Learning Event – interaction and feedback from technical experts, national stakeholders and implementing partner
5. Baseline data collection, pre-feasibility studies, financial modelling, technical advisory support, inter alia. This includes professional consultancy engagements to support the further development of proposed draft legislation that will catalyze domestic renewable energy growth; to provide consultation to identify and select qualified solar PV trainers. This work is to be coordinated with the Eastern Caribbean Energy Regulatory Authority (ECERA)
6. Monitoring and supervision by project team
7. Development and dissemination of knowledge products
8. Development and dissemination of knowledge products; conference coordination
9. This work will involve the co-creation of the Caribbean Energy Transition Community of Practice. The COP will be owned by CARICOM and, in the process, CARICOM will ensure that their other activities such as ECDG and CCRRMS are coordinated closely
10. Regional conferences and other knowledge sharing and capacity building events; case study visits
11. Public outreach programmes
12. Capacity building at national level e.g. in energy auditing

13. National Project Coordinator for Saint Lucia
14. Technical and feasibility studies e.g. grid integration studies, development of bankable proposals
15. Installation and related services
16. Monitoring and supervision by project team
17. Renewable energy and energy efficient systems and infrastructure e.g. PV systems, LED retrofits. These investment activities will be coordinated closely with the CDB which will provide the debt component of project financing
18. Capacity building at regional level e.g. on the Islands Playbook process, energy storage
19. Project evaluations
20. Local project coordinators
21. Project Board meetings and monitoring across several countries
22. Project team coordination; dissemination of project information
23. Annual audit
24. Inception workshop, dissemination of lessons

5 MANAGEMENT ARRANGEMENTS

The project will be executed under UNDP's NGO implementation modality. The project will be implemented by Rocky Mountain Institute (RMI)/Carbon War Room (CWR), in partnership with the U.S. Department of Energy (US DOE), with support from UNDP to the beneficiary countries, as shown in the project organization structure:

5.1 Project Organization Structure



UNDP will undertake regular oversight of project implementation including management arrangements, annual work planning and in-situ monitoring, financial and results management, evaluation and project closure.

The Project Board is responsible for making management decisions for a project in particular when guidance is required by the Project Manager. The Project Board plays a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan, the Project Board can also consider and approve the quarterly plans (if applicable) and also approve any essential deviations from the original plans. The Terms of Reference are included in Annex I.

In order to ensure UNDP's ultimate accountability for the project results, Project Board decisions will be made in accordance to standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the Board, the final decision shall rest with UNDP.

Potential members of the Project Board are reviewed and recommended for approval during the PAC meeting. Representatives of other stakeholders can be included in the Board as appropriate. The Board contains four distinct roles:

- **Executive/Project Director**: individual representing the project ownership to chair the group. For this project the UNDP Resident Representative in Barbados and OECS will assume this role.
- **Development Partners/Senior Supplier**: individual or group representing the interests of the parties concerned which provide funding for specific cost sharing projects and/or technical expertise to the project. The primary function within the Board is to provide guidance regarding the technical feasibility of the project. CWR/RMI will assume this role.
- **Beneficiary Representative**: individual or group of individuals representing the interests of those who will ultimately benefit from the project. The primary function within the Board is to ensure the realisation of project results from the perspective of project beneficiaries. Nominated representatives of the beneficiary countries will serve on the Project Board in this capacity.
- **Project Assurance**: this role is the responsibility of each Project Board member; however the role can be delegated. The project assurance role performs objective and independent project oversight and monitoring functions, independent of the Project Manager, ensuring appropriate project management milestones are managed and completed. The Deputy Resident Representative of UNDP Barbados and the OECS, or their designate, will provide quality assurance oversight. The UNDP RBLAC Regional Hub will be responsible for independent monitoring, ensuring quality assurance, compliance with UNDP policies and procedures, oversight of implementation progress based on the monitoring mechanism designed as part of the project, and compliance with ATLAS project management.

Project Management and Implementation Team

Project Manager: The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. They will work with SRO leadership and technical staff to ensure quality project outputs.

National Project Coordinators: Project Coordinators will be appointed to support the Project Manager in superintending country-based project activities. These individuals will ensure that country level results are achieved within available time and budget.

Project Support: The Project Support role provides project administration, management and technical support to the Project Manager as required by the needs of the individual project or Project Manager. Such functions include administrative services, project documentation management, financial management, monitoring and reporting, and provision of technical support services.

5.2 General

5.2.1 Collaborative Arrangements with Related Projects

Coordination with other relevant GEF-financing initiatives will occur on a country by country basis and will be ensured through close coordination with relevant GEF staff and UNDP, which is responsible for the implementation of several national GEF allocations in the region.

For instance, UNDP is supporting the implementation of the St. Vincent and the Grenadines "Promoting Access to Clean Energy Services" project funded by the GEF ($1.8m) is catalyzing additional funding for renewable energy developments, including hydropower, potentially geothermal and particularly solar technologies (e.g. the country's new airport is expected to include solar photovoltaic installations).

UNDP and GIZ, through BMUB (Germany), are currently assisting Grenada, on a Programme on Integrated Climate Change Adaptation Strategies ($3.8m). In addition, the Grenada government is working with

UNDP's SRO in Barbados for NAMA support to "convert government buildings to solar", which will also be considered for GEF-6 funding along with similar demands for NAMA from the region.

UNDP's upstream climate change mitigation work already includes key regional partners. In addition, the SRO is supporting the Eastern Caribbean on Energy Efficient Lighting technologies under the SIDS DOCK Support Programme ($1m), with baseline activities expected in Barbados, in line with the GEF-funded Barbados' Disaster Risk and Energy Access Management (DREAM) ($1.8m) initiative, as well as the rest of the OECS.

Elsewhere in the Caribbean, UNDP is also supporting energy access in various sectors and locations of relevance to other donors (e.g. Jamaica in the health sector, Guyana in the remote hinterlands), and low emission capacity building. UNDP's in-country presence in the region (with 9 country offices supporting implementation on the ground for 16 GEF program countries in the Caribbean) and coordination mandate within the UN system and across donor platforms, will help ensure integration and avoid duplication with activities supported by other agencies with GEF grants (e.g. WB, IDB, UNEP) and other sources of funds (e.g. Japan-Caribbean Climate Change Partnership, SIDS DOCK, USDOE, ECPA, OAS, CCCCC).

5.2.2 Prior Obligations and Prerequisites

There are no prior obligations or prerequisites.

5.2.3 Audit Arrangements

The audit will be conducted in accordance with UNDP financial rules and regulations and applicable audit policies on UNDP projects.

5.2.4 Communications and visibility requirements

Full compliance is required with UNDP's Branding Guidelines. These can be accessed at http://intra.undp.org/coa/branding.shtml, and specific guidelines on UNDP logo use can be accessed at: http://intra.undp.org/branding/useOfLogo.html. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: http://www.thegef.org/gef/GEF_logo. The UNDP logo can be accessed at http://intra.undp.org/coa/branding.shtml.

Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at:

http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf

Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

5.2.5 Learning and knowledge sharing:

The Ten Island Challenge approach is a country-driven process enabling recipient countries to realize their own clean economy vision.

The approach includes the Islands Playbook, a detailed step-by-step process to transition islands out of fossil fuels; a Caribbean Energy Transition Community of Practice platform, providing self-service hands-on information, capacity building and training with web presence (one-stop shop portal with resources), a peer network of local counterparts, a finance facility, and communications support; and, a UNDP-GEF "de-risking" financial tool to be applied throughout the transition.

As part of regular monitoring and outreach activities outlined in this proposal (e.g. community of practice, Youth Leaders and other peer networks) the project will host a regional workshop in one of the islands to showcase the application of these approaches, and disseminate its results, best practices and lessons learned.

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

6 MONITORING FRAMEWORK AND EVALUATION

The CWR Project Manager and the UNDP SRO, supported by the UNDP-GEF unit will be responsible for monitoring and evaluation in accordance with UNDP/GEF procedures. The project will be monitored through the following M&E activities.

6.1 M&E Activities

6.1.1 Project start

As part of the M&E plan a project Inception Workshop/Project Launch will be held within the first 4 months of the project start-up with the stakeholders part of the project organization structure described above, the UNDP SRO and where appropriate/feasible the UNDP-GEF team, as well as other stakeholders to be invited. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop should address a number of key issues including:

- Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP SRO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

6.1.2 Quarterly

Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.

Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).

Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.

Other Atlas logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

6.1.3 Annually

Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

6.1.4 Periodic Monitoring

UNDP SRO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

6.1.5 End of Project

An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP SRO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC).

The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

6.2 M&E work plan and budget

The Monitoring and Evaluation budget is provided in Table 7.

Table 7. M&E work plan and budget.

Type of M&E activity	Responsible Parties	Budget US$ Excluding project team staff time	Time Frame
Inception Workshop and Report	Project Manager UNDP SRO, UNDP GEF	Indicative cost: 5,000	Within first four months of project start up
Measurement of Means of Verification of project results.	UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on *output and implementation*	Oversight by UNDP with support from the Project Manager Project team	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	Project manager and team UNDP SRO UNDP RTA UNDP GEF	None	Annually by July
Project Board meetings	Project Manager	To be determined as part of the Annual Work Plan's preparation. Indicative cost: 18,000 (6,000 x 3 years)	Following IW and twice annually thereafter.
Periodic status/ progress reports	Project manager and team	None	Quarterly
Final Evaluation	Project manager and team, UNDP SRO UNDP GEF Evaluation consultants	Indicative cost: 30,000	At least three months before the end of project implementation
Project Terminal Report	Project manager and team UNDP SRO local consultant	0	At least three months before the end of the project
Audit	UNDP SRO Project manager and team	Indicative cost: 12,000	Yearly
Visits to field sites	UNDP SRO UNDP GEF (as appropriate) Government representatives	For GEF supported projects, paid from IA fees and operational budget	Yearly
Dissemination of lessons learnt	Project Manager and team Local consultant	Indicative cost: 5,000	At least three months before the end of the project
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		Total: 70,000 approx. (GEF funded, not including co-financing resources)	

7 LEGAL CONTEXT

This project forms part of an overall programmatic framework under which several separate associated country level activities will be implemented. When assistance and support services are provided from this Project to the associated country level activities, this document shall be the "Project Document" instrument referred to in: (i) the respective signed SBAAs for the specific countries; or (ii) in the Supplemental Provisions attached to the Project Document in cases where the recipient country has not signed an SBAA with UNDP, attached hereto and forming an integral part hereof.

This project will be implemented by the agency (Rocky Mountain Institute/Carbon War Room) ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply**.**

The responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. The Implementing Partner shall: (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; (b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

ANNEXES

ANNEX I – Terms of Reference

DRAFT TERMS OF REFERENCE
PROJECT BOARD

1.0 BACKGROUND

Caribbean countries share similar economic and sustainable development challenges, including a small population, remoteness, susceptibility to natural disasters, and most importantly, vulnerability to climate change. Given the current condition of the marine environment, most coastal areas have few defences against the raging surfs of hurricanes and tropical storms, and the likely consequences would be significant coastal damage including beach erosion and infrastructure damage. Negative impacts associated to climate change on land, water resources and biodiversity have also been predicted, and ultimately, tourism and agriculture will be negatively impacted by these changes. Meanwhile, Caribbean countries emit such relatively small amounts of greenhouse gas emissions, which mean that they will suffer disproportionately from the impacts of climate change.

Most Caribbean islands import oil for the bulk of their electricity needs, exposing these countries to the volatility of international markets and all of the associated economic consequences. Local generation plants are often old and a major source of greenhouse gas emissions, while the islands' greatest indigenous energy resources – the sun and the wind – remain untapped. Building a sustainable energy infrastructure, however, is challenging. Even in the most developed countries, large-scale investment in renewable energy requires a supportive policy and economic climate. But if the right framework can be put in place, renewable power can be cost-competitive with traditional electricity generation. This is particularly true in the Caribbean, where electricity can cost as much as US$0.50/kWh, among the highest in the world.

For instance, Saint Lucia imports almost 100% of its oil needed to run its sole power plant on the island. According to the Caribbean Electricity Service Corporation (CARILEC), electricity prices average at least US$0.34/kWh, in a context where the average annual household income is US$12,800 (2011).[12]

With its tremendous wind, solar and (in some cases) hydro and geothermal resources, the Caribbean region has the opportunity to take a low emission climate resilient development path. Substantial barriers remain, however, which are similar to those that hinder renewable energy projects in many places around the world, though with an added level of complexity typically faced by small island development states (SIDS).

The Carbon War Room (CWR) is a catalytic non-profit founded by Sir Richard Branson that harnesses the power of entrepreneurs to implement market-driven solutions to climate change. The organisation's unique approach focuses on bringing together successful entrepreneurs, business leaders, policy experts, researchers, and thought leaders to focus on market-driven solutions. The CWR identifies the barriers that are preventing market-based scale up of climate change solutions and thereby perpetuating the status quo. In addition to technology and policy gaps, these barriers include principle-agent problems, information gaps, and lack of common standards or metrics.

The Ten Island Challenge aims to accelerate the transition of Caribbean island economies from heavy dependence on fossil fuels to a diverse platform of renewables and energy efficiency, and establish a blueprint for other SIDS.

[12] http://www.indexmundi.com/saint_lucia/gdp_per_capita_(ppp).html

2.0 COMPOSITION

Representatives from the following organisations shall comprise the Project Board:

- One national representative as Chair
- United Nations Development Programme (UNDP) Barbados and the OECS Sub-regional Office
- Rocky Mountain Institute/Carbon War Room
- National representatives of 3 beneficiary countries

National representation will operate on a rotational basis, to change annually. Country representatives are designed to represent the interests of the entire group of beneficiaries in the most effective and impactful implementation of the project.

3.0 FUNCTIONS OF THE PROJECT BOARD

1. Offer overall policy and technical guidance and direction towards the implementation of the project, ensuring it remains within any specified constraints
2. Provide input into work plans, budgets and implementation schedules to guide the achievement of project objectives
3. Approve project implementation schedule, annual work plan (AWP) and indicative project budget at the commencement of each project year within its remit
4. Provide guidance and agree on possible countermeasures/management actions to address specific project risks
5. Address project issues as raised by the Project Manager
6. Agree on Project Manager's tolerances as required, and provide ad-hoc direction and advice for situations when tolerances are exceeded
7. Review and endorse changes in project work plans, budgets and schedules as necessary
8. Monitor project implementation and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans
9. Review and make decisions on recommendations related to project management from the Executing Agency or Implementing Agency
10. Arbitrate where necessary and decide on any alterations to the programme
11. Endorse an overall project evaluation and monitoring function for the duration of the project through a mechanism agreeable to all Project Board parties
12. Providing necessary oversight to ensure sustainability of project

4.0 MEETINGS

The Project Board will meet at least every six months, at a time and place convenient to all members. A quorum will be constituted by 51% of the representatives listed at 2.0, and this must be present for meetings of the Project Board to be convened.

5.0 CHAIRPERSON

The Project Board Chair will chair the Project Board meeting.

The Chair will be responsible for:

1. The conduct of the meeting
2. Ensuring that an accurate record of the discussions and decisions of each meeting is prepared and forwarded to all members
3. Ensuring adequate follow-up on the undertakings of the members of the Project Board.

6.0 SECRETARIAT OF THE COMMITTEE

The Project Manager will provide secretariat services to the Project Board.

7.0 COMMUNICATION

Documentation being presented for review at any meeting of the Project Board will, as far as possible, be distributed two weeks prior to the meeting. The preparation of the records of all official meetings of the Project Board will be the responsibility of the secretary. These records must be forwarded to Project Board members no later than two weeks after its conclusion.

8.0 DURATION

The Project Board will exist for the duration of the project.

9.0 FUNDING OF PROJECT BOARD ACTIVITIES

Project resources will be used to support the participation of country representatives and other members as required.

10.0 MEETING LOCATION

Meetings of the Project Board will be held at locations agreeable to all members.

National Project Coordinator (NPC):

III. Functions / Key Results Expected

The National Project Coordinator will facilitate the development and implementation of renewable energy and energy efficiency projects identified by the Government of Saint Lucia and the Saint Lucia Electricity Services Ltd (LUCELEC), which are supported by the Carbon War Room-Rocky Mountain Institute and Clinton Climate Initiative partnership through the Ten Island Challenge.

Under the supervision of UNDP Barbados and the OECS, CWR and the Saint Lucia Leadership Team (LUCELEC and the Ministry of Sustainable Development, Energy, Science and Technology) will help to achieve the following outcomes:

Component 1: Island-wide de-risked enabling environment for low GHG development through the demonstration of innovative policy tools

Outcome 1.1. Clean energy action plans to meet Ten Island Challenge targets in the Caribbean developed
Outcome 1.2. Policy de-risking analysis and guidance for Ten Island Challenge countries in the Caribbean provided

Component 2: Strengthened island capacity for integrated low GHG technical and operational planning and coordination among countries and donor partners
Outcome 2.1. Caribbean platforms for clean energy technology research, development, transfer and adoption enabled
Outcome 2.2. Skills and expertise in island-wide clean energy investment de-risking and market transformation built

Component 3: Catalysed island funding for low GHG technology deployment
Outcome 3.1. Caribbean energy resource capacity established
Outcome 3.2. Clean energy island-wide investments leveraged

Summary of key functions
The National Project Coordinator will be primarily responsible for ensuring that the project produces the results specified in the project document within Saint Lucia, to the required standard of quality and within the specified constraints of time and cost. This task will be conducted in coordination with UNDP Barbados and the OECS. S/he will work with government and UN agencies, the electric utility, NGOs, donors, and the private sector in accordance with the objective and outcomes of the project.

In order to achieve the above outcomes, the National Project Coordinator will be expected to conduct the following activities:

<u>Partnership building</u>

- Develops and maintains relationships with counterparts in-country and regionally to ensure buy-in and successful implementation

- Contributes to building strategic partnerships and synergies to enhance the impact and sustainability of the project outcomes
- Supports the development of local and regional partnerships, identifying opportunities for strengthened delivery of Smart Island Economies (SIE) through collaboration
- Liaises with key personnel of project partners to ensure adequate and timely technical inputs to the project

Project development, planning and implementation

- Supports development of the framework and delivery plan for Saint Lucia's implementation plan
- Provides implementation support, monitoring and evaluation of the Saint Lucia's implementation plan
- Works in close coordination with and provide direct support to the Saint Lucia Leadership Team to ensure delivery of project milestones
- Prepares quarterly island implementation budgets and monitoring of budget execution
- Identifies project risks that would impact the delivery of Saint Lucia's implementation plan, and identify measures to mitigate those risks
- Coordinates team island visits and other contracted firms, supporting optimum productivity and achievement of required outcomes
- Supports project oversight during the project execution and operation and maintenance phases of the island implementation plan
- Assists CWR in the mobilisation of goods and services for activities in Saint Lucia e.g. drafting TORs and work specifications, organising logistics, liaising with government agencies, etc
- Monitors the execution of all contracts in-country
- Ensures that the administrative, technical and financial processes are carried out in conformity with UNDP regulations, policies and procedures

Research and knowledge sharing

- Sources and collates data as required by the SIE team to inform studies, reports and recommendations required to progress implementation on island
- Review documents, proposals and reports relevant to the island's energy plans and transition
- Supports information sharing and coordination of activities amongst beneficiary countries, CWR and UNDP

Stakeholder engagement and communication

- Preparation of operational material as required, including internal reporting and external presentations to local stakeholders and stakeholder groups
- Ensures on-going engagement and consultation on Saint Lucia to ensure all relevant stakeholders remain well informed
- Works closely with the local utilities to ensure that they remain well informed and responsive the implementation of the on Saint Lucia's plan
- Supports meetings and events as required, managing logistics and outreach as required
- Identifies opportunities and requirements for local stakeholder workshops and events, including community consultation events
- Supports Saint Lucia's Leadership Team in their engagement with private sector firms as required
- Liaises with relevant ministries and the power utility to ensure effective coordination of activities and promote communication between stakeholders

- Works closely with the CWR Communications team to ensure reporting of all relevant local news items and press releases, ensuring a coordinated approach to delivery of the joint Communications Strategy

Other activities

- Undertakes such travel as may be required from time to time in connection with project execution
- Undertakes any other activities required for the fulfilment of the mandate of the post

IV. Competencies and Critical Success Factors

Professionalism:

- Knowledge and understanding of theories, concepts and approaches relevant to climate change, risk management and sustainable development, especially in relation to SIDS and the Caribbean.
- Ability to identify issues, analyse and participate in the resolution of issues/problems.
- Analytical and evaluative skills
- Ability to apply judgment in the context of assignments, plan own work and manage conflicting priorities.
- Shows pride in work and in achievements; demonstrates professional competence and mastery of subject matter; is conscientious and efficient in meeting commitments, observing deadlines and achieving results; is motivated by professional rather than personal concerns; shows persistence when faced with difficult problems or challenges; remains calm in stressful situations.
- Demonstrates commitment to UNDP's mission, vision and values
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
- Takes responsibility for incorporating gender perspectives and ensuring the equal participation of women and men in all areas of work.

Teamwork:

- Works collaboratively with colleagues to achieve organisational goals; solicits input by genuinely valuing others' ideas and expertise; is willing to learn from others
- Responds positively to feedback and differing points of view
- Creating and promoting enabling environment for open communication
- Places team agenda before personal agenda; supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position; shares credit for team accomplishments and accepts joint responsibility for team shortcomings.

Planning and organising:

- Develops clear goals that are consistent with agreed strategies; identifies priority activities and assignments; adjusts priorities as required
- Allocates appropriate amount of time and resources for completing work
- Foresees risks and allows for contingencies when planning; monitors and adjusts plans and actions as necessary

Communication

• Outstanding communication and presentation skills • Excellent interpersonal and cross-cultural communication skills • Strong partnership building and networking skills

VI. Recruitment Qualifications	
Education:	• Master's degree in engineering or similar field related to sustainable energy or climate change mitigation (e.g. renewable energy, energy efficiency, energy access), natural resource management, geography, or similar field • Certification in project management is highly desirable
Experience:	• At least 6 years of experience in the energy sector, climate change mitigation or related area • At least 4 years of progressively responsible experience in project or programme management • At least 3 years of professional experience in working with multi-disciplinary teams, policy analysis and energy issues. • Working knowledge of sustainable energy and climate change technologies is an asset • Experience in the organisation of and performance of workshops • Extensive experience in working with the Government of Saint Lucia, multilateral and bilateral development agencies • Understanding of multilateral development agency or bank programming and disbursement modalities is an asset, particularly the UN or UNDP • Demonstrable computer proficiency including Word processing, spread sheets, PowerPoint; knowledge of GIS is an asset • Strong communication and advocacy skills. Ability to work in a complex environment. • Excellent analytical, organisational and negotiation skills. Ability to demonstrate tact and diplomacy and excellent team player. • Sound understanding of national and local development planning processes specially in SIDS • Extensive contacts with international experts and organisations involved in international studies on energy, climate change and natural resource management in a changing climate, particularly relevant for the Caribbean (e.g. CARICOM, UNFCCC, CCCCC, OECS).
Language:	• Fluency in written and spoken English • Working knowledge of other UN languages is an asset

The ToRs for the other project staff and consultants will be developed and provided after the inception workshop.

ANNEX II – Environmental and Social Screening Procedure (SESP)

Project Information

Project Information	
1. Project Title	The Ten Island Challenge: Derisking the Transition of the Caribbean from Fossil Fuels to Renewables
2. Project Number	5526 (UNDP PIMS ID) / 8006 (GEF PMIS ID)
3. Location (Global/Region/Country)	Regional (Caribbean)

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the Project mainstreams the human-rights based approach
Stakeholder communities will be involved at every step of the project, including planning and design, implementation, and monitoring and evaluation. The consultative mechanisms envision an approach which is equitable and non-discriminatory in giving all stakeholders a voice and contribution to the decision making process, accountability and rule of law. Emphasis will also be placed on ensuring that information will be shared in a way that all stakeholders understand. This will ensure that the population in the islands to be part of the initiative reap not only the full benefits of increased access to cleaner energy sources and related savings, but also exercise their rights to employment, just and favorable conditions of work (jobs created), and their rights to health and education (energy efficiency in hospitals, technical/other stakeholder training).
Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment
Ten Island Challenge initiative, as a core principal will ensure that gender considerations are fully integrated into the transition of the Caribbean to low carbon growth. Specifically, the GEF-funded project will be assessed to identify the extent to which gender concerns have been taken on board in key sectors (e.g. health, tourism). The project will operationalize its social safeguards by integrating gender concerns in monitoring activities to ensure it does not cause perverse gender impact nor exacerbate gender inequality (e.g. employment opportunity, access to energy, child and maternal health, women empowerment and entrepreneurship). This is in line with UNDP's 2014-2017 Strategic Plan and the GEF Policy on Gender Mainstreaming.
Briefly describe in the space below how the Project mainstreams environmental sustainability
The project is full aligned with UNDP's 2014-2017 Strategic Plan, which mainstreams environmental sustainability in sustainable development concerns. Indeed, the targeted CO_2 emission reductions and coverage of energy access is integrated under the overall outcome of growth and development that is inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5 below before proceeding to Question 6*			**QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?**
Risk Description	***Impact and Probability (1-5)***	***Significance (Low, Moderate, High)***	***Comments***	***Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.***
Risk 3: Generation of non-hazardous waste from small-scale infrastructure (e.g. metals, PVC), agricultural waste (7.2)	I = 1 P = 4	**L**	Can be recycled, composted or reused	

	QUESTION 4: What is the overall Project risk categorization?		
	Select one (see SESP for guidance)		**Comments**
	Low Risk	✓	
	Moderate Risk	☐	
	High Risk	☐	

	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		
	Check all that apply		**Comments**
	Principle 1: Human Rights	☐	e.g. rights to work, health and education
	Principle 2: Gender Equality and Women's Empowerment	☐	e.g. disaggregated data of women's empowerment and gender equality in job creation, business opportunity, others

	1. Biodiversity Conservation and Natural Resource Management	☐	e.g. EIA for RE installations (e.g. birds, bats, land ownership)
	2. Climate Change Mitigation and Adaptation	☐	e.g. emissions (CO_2) and resilience (disaster risk reduction)
	3. Community Health, Safety and Working Conditions	☐	e.g. right to health benefits, adequate project cover
	4. Cultural Heritage	☐	
	5. Displacement and Resettlement	☐	e.g. key actions in event of disasters, land ownership issues
	6. Indigenous Peoples	☐	
	7. Pollution Prevention and Resource Efficiency	☐	

Final Sign Off

Signature	***Date***	***Description***
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have "cleared" the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights		**Answer (Yes/No)**
1.	Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? [13]	No
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No
5.	Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
6.	Is there a risk that rights-holders do not have the capacity to claim their rights?	No
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?	No

[13] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

	For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being	
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? *For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes*	No
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4	Would Project activities pose risks to endangered species?	No
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? *For example, construction of dams, reservoirs, river basin developments, groundwater extraction*	No
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? *For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.*	No
Standard 2: Climate Change Mitigation and Adaptation		

2.1	Will the proposed Project result in significant[14] greenhouse gas emissions or may exacerbate climate change?	No
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	No
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? *For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding*	No
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No

[14] In regards to CO_2, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No
5.3	Is there a risk that the Project would lead to forced evictions?[15]	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? *If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.*	No
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		

[15] Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	Yes
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? *For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol*	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No

ANNEX III – Project Cooperation Agreement

(Attached separately)

ANNEX IV – Capacity Assessment

HACT Micro Assessment (Attached separately)

ANNEX V – Co-financing Letters

(Attached separately)

ANNEX VI – GEF Implementing Agency for TIC Letter from CWR

(Attached separately)

ANNEX VII – Risk Analysis

Project Title: The Ten Island Challenge: De-risking the Transition of the Caribbean from Fossil Fuels to Renewables	**Award ID:** 00089334	**Date:** January 2015

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response
1	Change in political party and commitment to the renewable agenda changes	1/28/2015	Political	P = 3 I = 3	Due to the high cost of electricity experienced in Caribbean countries and excellent renewable resource, there is strong political will from all political stakeholders in participating Caribbean countries. However, in order to mitigate a change in political priority, the project will have a direct impact on the policy and regulatory framework to ensure the appropriate policies are in place to accelerate commercial and utility scale renewable deployment, which will in turn mitigate the risk to medium term and long-term renewable deployment.
2	Lack of coordination amongst various stakeholders and partners with various sustainable energy roles and responsibilities in participating countries	1/28/2015	Operational Organizational Strategic	P = 4 I = 3	The project will ensure the coordination and integration of support to sustainable energy objectives, in line with each respective countries low carbon development strategies – including National Adaptation Plans of Action (NAPA) where relevant, Strategic Programs for Climate Resilience in participating Pilot Program for Climate Resilience countries, first and second communications to the UNFCCC. In addition, the CWR will work directly with relevant bi-lateral and multi-lateral organizations active in the sustainable energy space to ensure programmatic coordination. National level coordination will be ensured through the adoption of the playbook by other donor partners, which was agreed to in the Sustainable Energy Donor Working Group comprised of all donor partners and regional institutions involved in sustainable energy in the Caribbean.
3	Limited public sector uptake after EE lighting / appliance solar PV grant-funded pilot demonstrations take place	1/28/2015	Financial Political	P = 3 I = 3	The costs and risks associated with the proposed EE lighting/appliance and solar PV infrastructure will be shared between the project, the Government and the private developers who are expected to engage with, and invest in, this project. The project's market transformation approach will primarily focus on addressing the policy de-risking concerns the government may have before committing to investment programs. But the expected energy savings considering government hefty electricity bills provide a strong indication that further public investment will be catalyzed after the pilots.
4	Non approval of expected fiscal,	1/28/2015	Regulatory	P = 4 I = 4	Access to cleaner energy sources has been placed high enough in the respective governments' agenda, given the high tariffs experienced in participating countries, which are later on passed to

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response
	economic and financial incentives to address the first-cost concerns behind EE lighting / appliance and solar PV procurement				municipalities and island communities. Therefore, budgetary allocations will be closely monitored to ensure provision is made to support planned energy-efficient lighting/appliance and solar PV investments, with the direct engagement of the Ministry of Finance.
5	Low capacity and awareness to support project identification, development and start-up implementation (e.g. proposal development, tendering, oversight)	1/28/2015	Operational Organizational	P = 3 I = 3	Actions will be proposed to ensure above-mentioned government entities and the private sector fully participate in the capacity development interventions, with the required technical and policy oversight of the project and UNDP. Project identification will be supported by Homer Energy hybrid modeling software – the industry standard, and project development and procurement will be directly supported by DNV GL – in close collaboration with the utility. All procurements will be open and competitive with and CWR and DNV GL will participate in the evaluation of technical proposals to ensure transparency in the process. In addition, local private sector will be directly engaged in project implementation; and, the project communication strategy will target all other stakeholders, so they visualize the benefits of the EE lighting/appliances and solar PV installations.
6	Climate variability in the Caribbean exacerbating extreme weather events, such as hurricanes, severe storms and other patterns leading to infrastructure disruption	1/28/2015	Environmental Operational	P = 5 I = 5	The climate resilience of the proposed wind, solar and energy storage interventions will be addressed by ensuring that the design and installation of the systems places emphasis on their ability to withstand extreme conditions. Project implementation will also target public buildings and infrastructure expected to be used as shelter during extreme weather events (e.g. hurricanes, cyclones, storms), as electricity cost savings from any disaster risk response will free up public expenditure space to address other basic needs (e.g. water, food, health).

ANNEX VIII – Detailed Multi-Country Work Plans

(Attached separately)

ANNEX IX – San Andres Islands

Technical and business advisory services to support the energy transition on San Andres Islands, Colombia

Project: Ten Island Challenge

Background: The San Andres Islands experience some of the highest electricity prices in the world, which are heavily subsidized by the federal government. The high cost of importing fossil fuels to generate electricity and fuel the transport sector on the San Andres Islands creates a road block for any form of sound macro and socio-economic development in the San Andres Islands. At the same time, the San Andres Islands have excellent resource availability for renewable energy. Compared to many mainland markets, both wind and solar generation profiles are quite strong. Solar irradiance is steady throughout the year due to the limited variation in daylight across seasons. Wind speeds are also strong and reliable – even in comparison with some of the best markets in the world, providing highly attractive capacity factors for wind development. This combination creates strong incentive for the San Andres Islands to transition to renewables.

However, to date, there is very little progress towards transitioning to renewables in the San Andres Islands. A number of factors have contributed to the relative lack of progress – including: 1) a lack of involvement of the community in shaping the optimal energy pathway for the islands, 2) a lack of understanding of the distribution grid's capacity, 3) poor project development, 4) a lack of proven contract types for project financing, 5) no medium-term or long-term energy plan, 6) a lack of incentives for the utility – under its current business model, to transition to renewables, and 7) a regulatory framework which does not enable renewable penetration nor security that project developers and contractors will receive a financial return on their investment.

In order to ameliorate these barriers, the Carbon War Room – together with its partners – has been asked to assist the San Andres Islands under the Ten Island Challenge by providing a suite of business advisory and technical services designed to: 1) engage stakeholders to define a shared energy vision for the San Andres Islands, 2) conduct requisite technical studies to understand energy pathway options, 3) conduct an inclusive energy planning process, and 4) improve the project risk-reward profile of potential renewable investments.

Working with Rocky Mountain Institute and the Clinton Climate Initiative, the Carbon War Room will provide a range of services to both the Government of Colombia and the utility (SOPESA) to support an energy transition framework, which will facilitate and accelerate the transition of the San Andres Islands to high renewable penetration – including the commercialization of renewable and energy efficiency projects.

Objective: The objective of Carbon War Room's work is to support the Government of Colombia to accelerate the San Andres Island's transition off fossil fuels.

Scope of Work: The scope of Carbon War Room's work includes: stakeholder engagement, energy planning and project identification, a review and assessment of the commercial viability of the identified renewable and/or energy efficiency solution, and the development of the go-to-market strategy – including financing strategy, preparation and execution of Request for Proposals, evaluation of proposals and vendor recommendations, contract negotiations support and implementation support services.

To guide the process, a comprehensive plan that provides clear guidance, steps, and helpful tools for the San Andres Islands to develop and execute their renewable energy vision will be provided in the form of a step by step playbook.

The Islands Playbook provides a detailed step-by-step process designed to transition islands from fossil fuels to a low-carbon energy mix. This process includes a check list for countries to follow in order to ensure that stakeholder ownership, energy baselines, and metrics to measure progress are in place, as well as detailed steps to identify, develop, and deploy locally tailored solutions that are economically and commercially viable.

The Islands Playbook comprises the following phases:

Phase 0: Island Engagement Process
Phase 1: Setting the Vision
Phase 2: Opportunity Roadmap
Phase 3: Project Preparation
Phase 4: Project Execution and Quality Control
Phase 5: Operations & Maintenance
Phase 6: Process Improvement

Carbon War Room's support will be provided over a three-year period. The structure and deliverables will be as follows:

Year 1 (Phase 0-2; June 2014-May 2015): Carbon War Room and partners will accelerate a number of demonstrative renewable projects, which will be identified at a workshop with key stakeholders - including community representatives, the utility (SOPESA), EDDAS, and government representatives to build upon an already-existing stakeholder engagement and vision-setting process to launch the playbook for the San Andres.

Renewable Pathway Workshop. The objective of the workshop will be to set goals around an efficient, high penetration renewable island grid. At the workshop, the results of a detailed energy characterization process (e.g. island wide grid integration study, current state of the local energy system, relevant legislation improvements and options for a renewable pathway) will be presented. Additionally, the renewable energy screening study for San Andres will be presented. A communications strategy will also be developed to highlight participating stakeholder groups and build momentum towards success. As a part of these initial activities, the project team will analyze existing project proposals on the islands and identify where and how those projects could contribute to meeting energy and sustainability goals. If requested, Carbon War Room will also work with the utility (SOPESA) on revising their business model to incentivize renewables and energy efficiency.

Project Identification. Following the workshop, the Carbon War Room and on-island stakeholders will identify a first round of "shovel ready" renewable projects (i.e. wind, solar and energy efficiency projects). Carbon War Room and partners will conduct the necessary background research to assess the project viability as well as to plan/execute project initiation. More specifically, the Carbon War Room will:

1. Provide an overview and recommendation of proposed renewable solution – including technology risk/benefits;
2. Provide an overview and recommendation of proposed project investment sites - including site characteristics and constraints;
3. Identify capacity constraints;
4. Propose project development process (steps and timing); and
5. Propose the project schedule

The Carbon War Room will work with the relevant stakeholder groups to help launch these projects in order to obtain several near-term wins for San Andres' transition to an efficient, high penetration renewable system. In the process, the Carbon War Room will take a community-centric approach to ensure that all members of the community voices are heard and respected in the process.

Year 1 Deliverables:

1. San Andres Grid Integration Study
2. San Andres Renewable Screening Study
3. San Andres Wind Resource Assessment
4. San Andres Renewable Pathway Options
5. Communications Strategy

Year 2 (Phase 3; May 2015–April 2016): Leading into year two, Carbon War Room will have three primary objectives: 1) finalize and refine the energy transition strategy for San Andres, 2) develop and publish the Request for Proposals (RFP) for the first round of renewable projects in San Andres, and 3) engage stakeholders on Providencia to develop a detailed, near term strategy for Providencia's electricity grid to be high penetration renewable.

Project Development. As part of this process, the Carbon War Room will develop the technical specifications and implementation arrangements required to develop and publish a RFP for each of the first round of identified projects for San Andres. This will include the preparation of a go-to-market strategy – including a financing strategy, and identification of project risks and risk management measures. More specifically, the Carbon War Room will:

- Provide an outline potential project finance and economic constraints for each project;
- Provide an analysis of operating cost and financing model outputs for each project;
- Provide ownership options (public, private, public-private) – including an evaluation of the financing options available;
- Analyze environmental impacts (traffic, odors, emissions, noise, effluents, aesthetics/visual impacts) for each project;
- Conduct a Life Cycle Analysis model outputs (if required) for each project;
- Provide a standardized bid tab for comparison of quotes and insurance of scope coverage; and;
- Facilitate public outreach and support for each project.

Procurement, Negotiations and Contract Award. In addition, the Carbon War Room will provide RFP distribution and vendor engagement support as well as technical services to evaluate bids received in response to RFPs for each project. More specifically, Carbon War Room will:

- Distribute the RFP for each project to pre-qualified bidders;
- Facilitate a pre-proposal meeting with interested pre-qualified bidders;
- Conduct a detailed technical and financial evaluation of bids received. This process will evaluate the following:
    - Respondents qualifications, experience, financial history and safety record;
    - Technology or process track record;
    - Environmental impacts (traffic, odors, noise, visual, effluents, water quality, etc) and suitability for the project's site;
    - Commercial feasibility;
    - Project outputs and off-takes;
    - Commercial scale operation of existing facilities;
    - Processing capacity;
    - Technical requirements;
    - Financial models, based on information provided;

- Estimated Capital start up and annual operational costs (including ownership preference, if presented);
- Key Personnel with resumes/CVs; and
- Insurance and/or bonding requirement.

A report detailing the vendor evaluation process, selection methodology, and preliminary selection recommendations will be provided to the government and utility in order to discuss the process and the recommendations prior to making the final choice of the successful bidder.

In addition, Carbon War Room will provide – if required, contract negotiation support with the winning bidders. As needed, Carbon War Room will provide the necessary legal advisory services.

Project Implementation Support. Lastly, Carbon War Room will provide assistance during the implementation phase of the respective projects in San Andres and initial phase of execution.

Year 2 Deliverables:

1. Providencia Grid Integration Study
2. Providencia Renewable Screening Study
3. Providencia Wind Resource Assessment
4. Providencia Renewable Pathway Options
5. San Andres Wind Project Community Engagement Strategy
6. San Andres Wind Project RFP
7. San Andres Wind Project Economic Analysis and Project Structure and Financing Recommendations
8. San Andres and Providencia Hospital Retrofit RFP
9. San Andres Hospital Solar PV Rooftop Project Economic Analysis
10. San Andres LED Street Light Retrofit (off-grid) RFP
11. Bid and Vendor Evaluation Report and Presentation for each project

Year 3 (Playbook Phases 4-6; with Phases 1-3 repeating; April 2016-March 2017):

Providencia Wind/Solar Projects. In year three, the Carbon War Room will support the government and utility in the preparation of projects to achieve Providencia's aim to be high penetration renewable electricity grid. As with San Andres, this process will include the development of technical specifications and implementation arrangements required to develop and publish an RFP for Providencia. This will likely be for a single, integrated wind and solar project – due to the small scale of the grid, and will include the preparation of a go-to-market strategy – including a financing strategy, and identification of project risks and risk management measures. For the wind component of the project, a detailed community engagement strategy will be developed and deployed to ensure local stakeholders understand the benefits of the proposed wind farm and are supportive.

San Andres solar potential study. In year three, a rooftop/ground-mount solar potential study will be developed, to assist San Andres in reaching higher levels of renewable energy penetration. As part of this process, an island-wide assessment of viable rooftop space for solar systems on residential and commercial buildings will be conducted. Given the high population density of San Andres, island rooftops are likely the most suitable location for solar generating systems.

Energy Efficiency Program. In addition, an energy efficiency program will be developed and implemented by an identified partner organization for the San Andres Islands. Currently, residential and commercial buildings on the archipelago are responsible for 65% of energy consumption. The proposed program will target different building classes (hotels, small businesses, and homes) and will aim to reduce energy consumption by buildings between 5% and 30% (approximately). In order to inform this program, a market

analysis will be conducted in order to define the opportunities and appropriate business model. As part of this process, energy efficiency opportunities in other areas – such as the water distribution system, will be explored as well.

Vehicle Electrification. Given that San Andres' tourist population (approx. 400,000 visitors per year) uses local taxi services depending on inefficient gasoline vehicles for transport around the island, an Electronic-Taxi Pilot Program will be explored. The Carbon War Room will explore, in conjunction with electric vehicle charging manufacturers, a small E-Taxi fleet powered by a combination of solar-powered charging stations with battery backup.

Long-term resourcing. Lastly, by the end of year three, the Government of Colombia and local San Andres Islands stakeholders will work to establish a long-term staffing and resource plan to carry momentum forward on the archipelago with planning support from the Carbon War Room and partners. This includes the design and delivery of training regarding operations and maintenance for specific renewable infrastructure supported under the Ten Island Challenge. It will also include the hiring of on-island staff who will be dedicated to ongoing engagement with stakeholder groups to support the San Andres Islands in meeting medium and long term goals established in conjunction with the Carbon War Room.

Year 3 Deliverables:

1. Providencia Integrated Wind and Solar Project RFP
2. Providencia Wind Community Engagement Strategy
3. Providencia Wind and Solar Project Economic Analysis and Project Structure and Financing Recommendations
4. Providencia LED Street Light Retrofit (off-grid) RFP
5. Bid and Vendor Evaluation Report and Presentation for each project
6. San Andres Rooftop/ground-mount Solar Potential Study
7. San Andres Energy Efficiency program RFP
8. San Andres Islands Long-term Staffing and Resource Plan

Annex 1: The Team

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Annex 2: Partners Organizations

United States Department of Energy

Clinton Climate Initiative