ROCKY MOUNTAIN INSTITUTE – CARBON WAR ROOM



ISLANDS ENERGY PROGRAM

REQUEST FOR QUALIFICATIONS

Pre-Qualification for Commercial, Engineering, and Modelling Consulting Services for Renewable Energy / Energy Efficiency Projects and Power Systems Planning

Issue Date: September 6, 2016

Submission Deadline: October 3, 2016

CONTENTS

| Preface | | 3 |
|------------|-----------------------------------|----|
| Section 1. | Letter of Invitation | 5 |
| Section 2. | General Scope of Work | 7 |
| Section 3. | Information to Interested Bidders | 10 |
| Section 4. | Requirements and Criteria | 15 |
| Annex 1. | Islands Energy Program Snapshot. | 19 |
| AIIIICX I. | Islands Energy Flogram Snapshot | 19 |

Preface

Rocky Mountain Institute, also doing business as Carbon War Room (hereon referred to as "RMI-CWR"), a Colorado charitable nonprofit corporation, seeks qualified companies/firms/organizations interested in submitting their qualifications in order to be considered pre-qualified for future consulting/advisory support under RMI-CWR's Islands Energy Program.

This document constitutes RMI-CWR's Request for Qualifications (RFQ) for the said project. Interested entities will be evaluated based on their ability to meet all requirements and criteria outlined in this RFQ.

This RFQ includes a standard Letter of Invitation, General Scope of Work, standard Information to Interested Bidders, and Requirements and Criteria. The General Scope of Work contained in this RFQ is not intended to be exhaustive and is subject to change. Information is provided based on current knowledge of future scope of work and is non-binding to RMI-CWR or its staff.

LETTER OF INVITATION

RMI-CWR

Islands Energy Program

Pre-Qualification for Commercial, Engineering, and Modelling Consulting Services for Renewable Energy / Energy Efficiency Projects and Power Systems Planning

Section 1: Letter of Invitation

September 6, 2016

Dear Interested Service Providers:

Rocky Mountain Institute, also doing business as Carbon War Room (RMI-CWR) invites interested companies/firms/organizations to provide their qualifications for the following consulting services: commercial, engineering, and modelling services for renewable energy projects and power (electricity) systems planning under RMI-CWR's Islands Energy Program.

RMI-CWR is looking to pre-qualify a select number of ideal companies/firms/organizations to be a partner in defining and executing energy transition processes in select Caribbean island countries – with plans to scale the program to 8-12 additional island countries in other island regions (i.e. Pacific and Indian Ocean). Due to the nature of the work proposed, RMI-CWR plans to work in an integrated and inclusive manner with interested companies/firms/organizations to undertake the required analysis to determine the optimal energy transition pathway for each country. The importance of this work cannot be understated in terms of its leading edge nature coupled with its potential impact on Caribbean island economies (and global importance).

Through our work in the Caribbean, RMI-CWR jointly with its partners, aims to develop a blueprint for energy transition processes from a technical, regulatory, financial and utility business model perspective for other isolated energy systems to replicate. There is also potential to provide insight into how continental economies/energy systems would also benefit from the proven energy transition blueprints developed by island countries. To date, there has been significant interest in program process by governments, utilities and media outlets within and outside the Caribbean region.

Interested partners (companies/firms/organizations) would be asked to perform the following types of activities¹ in the future: 1. (pre)feasibility studies, engineering studies, and specification development for renewable energy / energy efficiency projects²; 2. development of tender documents and management of tendering process for renewable energy / energy efficiency projects, and 3. load forecasting, energy and economic modelling, grid integration/stabilization studies, renewable penetration studies, and resource assessments. The approximate contract value for each specified task will vary, but will likely be in the range of US\$25,000-\$300,000. More details on the proposed services/activities are provided in the General Scope of Work.

¹ These activities are non-exhaustive and are subject to change. Different and additional types of activities could be sought in the future.

² Renewable energy projects include but are not limited to solar PV, wind, geothermal, and energy storage. Energy efficiency examples include hospital and government building retrofits or LED street lighting.

This RFQ is open to any company/firm/organization that meets the said requirements and criteria. Entities pre-qualified will be evaluated based on their ability to meet all requirements and criteria outlined in this RFQ.

The RFQ includes the following documents:

Section 1 - Letter of Invitation Section 2 - General Scope of Work Section 3 - Information to Interested Bidders Section 4 - Requirements and Criteria

Yours sincerely,

Justin Locke Director, Islands Energy Program

Section 2: General Scope of Work

Background: RMI is an independent nonprofit founded in 1982—transforming global energy use to create a clean, prosperous, and secure low-carbon future. It engages businesses, communities, institutions, and entrepreneurs to accelerate the adoption of market-based solutions that cost-effectively shift from fossil fuels to efficiency and renewables. CWR, whose business-led market interventions advance a low-carbon economy, merged with RMI in 2014 to form RMI-CWR.

With an independent, objective, and fact-based approach, RMI-CWR's Islands Energy Program brings experience gained from engagements with island governments and utilities to solve the toughest energy challenges. In 2015, the RMI-CWR Smart Island Economies program joined with the Clinton Climate Initiative's Diesel Replacement program to form the current Islands Energy Program. The Program is currently working with select island partners to support a cost-effective energy transition to benefit all national stakeholders.

The Program's strategy focuses on three complementary and mutually reinforcing components, which when implemented in an integrated and strategic manner, facilitate successful energy transitions in participating (and non-participating) island countries. The Program: 1) brings together governments and utilities to develop energy transition strategies, 2) builds broad-based support by de-risking an initial cohort of renewable energy and energy efficiency projects, and 3) creates a Community of Practice called the CARILEC Renewable Energy Community (CAREC) designed to share lessons, create irreversible bottom-up momentum, and build long-term capacity among island energy transition practitioners.

The Islands Energy Program currently includes the following country partners: Anguilla, Aruba, Bahamas, Belize, Colombia (San Andres and Providencia), Grenada, Montserrat, Saint Lucia, Saint Vincent and the Grenadines and Turks and Caicos.

Value Proposition: Island-nations possess abundant local and natural resources, like the wind and sun, which can be harnessed to provide clean, affordable domestic energy. The cost of renewable energy technologies has declined significantly in recent years, opening up the door to the possibility of entire economies being powered by clean energy. Including renewables into existing energy infrastructures benefits utilities, governments, and customers. By accelerating the transition of islands toward an energy system that includes renewable energy and energy efficiency, islands nations can:

- Stabilize the cost of electricity for households and businesses
- Reduce dependence on imported fossil fuels and lower GHG emissions
- Create investment opportunities and returns on-island
- Diversify the local job market with higher-skilled, better paying jobs

In turn, the RMI-CWR Islands Energy Program aims to create an energy transition blueprint that can be replicated in other isolated economies and provides insight into continental-scale renewable transitions.

RMI-CWR is looking for a select number of ideal companies/firms/organizations to be a partner in its' Islands Energy Program. The Program is currently working in 10 island countries with plans to scale the program to 8-12 additional island countries in other island regions (i.e. Pacific and Indian Ocean). Pre-qualified partners will have the opportunity to secure contracts on a rolling basis that range from US\$25,000 to \$300,000 in value.

General Scope. RMI-CWR is looking to pre-qualify interested partners to perform activities/tasks to support the development and commercialization of energy efficiency / renewable energy projects of various sizes, and power systems planning for electric utilities in the Caribbean region. There is a strong possibility that the geographical scope of this work could expand to other island regions such as the Indian and Pacific Oceans. The following types of activities³ are envisioned to be undertaken: 1. (pre)feasibility studies, engineering studies, and specification development for renewable energy / energy efficiency projects⁴; 2. development of tender documents and management of tendering/commercialization process for renewable energy / energy efficiency projects, and 3. energy forecasting, energy modelling, grid integration/stabilization studies, renewable penetration studies, demand side management assessments and renewable resource assessments.

The scope and nature of the work proposed will vary depending on the assignment. Prequalified partners will be expected to work in an integrated and inclusive manner with the RMI-CWR team. Following the pre-qualification process, for each envisioned task/activity in a country or collection of countries, pre-qualified partners may be asked to respond to a specific scope of work with a simplified technical and financial proposal outlining the technical approach and level of effort required (as time, travel and materials). RMI-CWR will review proposals submitted from interested pre-qualified bidders, negotiate and execute a contract for the agreed scope of work, and issue an authorization to proceed prior to the execution of work.

Envisioned Activities/Tasks: As previously indicated, pre-qualified partner companies/firms/organizations will be expected to work with the RMI-CWR team in a highly open, transparent and inclusive manner – looking to jointly define scopes of work and address challenges. Envisioned activities and tasks will vary in scope and complexity, however, the following indicative activities/tasks are envisioned:

1. Renewable Energy / Energy Efficiency Project Preparation / Development, Commercialization & Implementation:

- Project viability assessment
 - Interconnection Studies (circuit level);
 - Project finance and economic constraints;
 - Operating cost and financing model outputs;
 - Ownership options (public, private, public-private) including an evaluation

³ These activities are not-exhaustive. Additional types of activities could be sought in the future.

⁴ Renewable energy projects include but are not limited to solar PV, wind, geothermal, and energy storage. Energy efficiency examples include hospital and government building retrofits or LED street lighting.

of the financing options available;

- Environmental impacts (traffic, odors, emissions, noise, effluents, aesthetics/visual impacts);
- Life Cycle Analysis model outputs (if required);
- (pre)feasibility studies, engineering studies, and specification development for renewable energy / energy efficiency projects
- development of tender documents and management of tendering/commercialization process for renewable energy / energy efficiency projects
- construction, operations oversight / QA/QC (owner's representative / engineer)
- operational performance training / improvement
- 2. Power Systems Planning:
 - load forecasting; (to determine future energy consumption and peak demand for an electricity grid, up to national-scale)
 - energy and economic modelling; (to determine the optimal mix of energy generation needed to serve loads and reserve requirements (at a sub-hourly basis), including the economic implications of different investment options including, but not limited to conventional thermal generation and renewable energy generation)
 - grid integration/stabilization studies (to determine grid operations and stability under a variety of future scenarios, including the integration of variable renewable generation at the transmission and distribution levels).
 - grid protection and coordination studies; (to determine how best to protect grid stability and safety under future conditions)
 - demand side management assessments; (to determine how energy efficiency, demand response, demand flexibility, and other options can support electricity systems)
 - renewable resource assessments; (to determine the total potential, and economically viable potential for renewable energy, including siting, preliminary screening, and quantification of the resource).

Section 3: Information to Interested Bidders

1. Introduction:

RMI-CWR will pre-qualify companies/firms/organizations for future work in accordance with the requirements and criteria set forth in Section 4: Requirements and Criteria.

Interested companies/firms/organizations are invited to submit a Statement of Qualifications for consulting services outlined in Section 3: General Scope of Work. Companies/firms/organizations that meet all the said requirements and criteria will be included in a pre-qualified short list, which will be used to solicit quotations for future consulting services.

Interested companies/firms/organizations should familiarize themselves with RMI-CWR's Island Energy Program and local conditions in partner countries⁵ and take them into account in preparing their qualifications.

If pre-qualified and selected to conduct a specific future scope of work, RMI-CWR will provide the means to facilitate the inputs necessary in obtaining licenses and permits needed to carry out specific future services, and make available relevant project/system data and reports.

Companies/firms/organizations shall bear all costs associated with the preparation and submission of their qualifications and any future contract negotiations. RMI-CWR is not bound to accept any statement of qualification submission, and reserves the right to annul the selection process at any time prior to any award of contract - without thereby incurring any liability to applicants.

2. Conflict of Interest:

RMI-CWR will be bound by its conflict of interest policy and procurement procedures. Both can be found at <u>www.rmi.org</u>. RMI-CWR's conflict of interest policy is taken into account every time RMI-CWR contemplates entering into a transaction or arrangement that might benefit the private interest of or might result in an excess benefit to an interested person, defined as any person serving as an employee, executive, or trustee of RMI-CWR or any subsidiary.

⁵ Partner countries include, but are not limited to: Anguilla, Aruba, Bahamas, Belize, Colombia, Grenada, Montserrat, Saint Lucia, Saint Vincent and the Grenadines and Turks and Caicos.

A snapshot of RMI-CWR's work to date as well as anticipated future scopes of work can be found in Annex 1.

Violation of RMI-CWR's conflict of interest policy and the procedures for addressing the conflict of interest are outlined in the Conflict of Interest Policy.

3. Only One (1) Statement of Qualifications:

Companies/firms/organizations may only submit one statement of qualifications. If an entity submits or participates in more than one submittal, such proposals shall be disqualified.

4. Proposal Validity:

Section 4: Requirements and Criteria indicate how long companies/firms/organizations' qualifications must remain valid after the submission date. During this period, entities shall maintain the availability of professional staff outlined in their qualifications.

5. Clarifications and Amendments:

Interested companies/firms/organizations may request a clarification of any of the RFQ documents up to ten (10) days before the qualification submission deadline. Any request for clarification must be sent via email to Christopher Burgess, Director of Projects, RMI-CWR (cburgess@carbonwarroom.com). RMI-CWR will respond to any request for clarification (including an explanation of the query but without identifying the source of inquiry) to all interested bidders.

At any time before the submission of qualifications, RMI-CWR may amend the RFQ by issuing an addendum. The addendum shall be sent to all interested bidders and will be binding on them. Bidders shall acknowledge receipt of all addenda. To give interested companies/firms/organizations reasonable time in which to take an addendum into account in their qualifications RMI-CWR may, if the amendment is substantial, extend the deadline for the submission of qualifications.

6. Preparation and Submission of Qualifications:

Qualifications as well as any supporting documentation shall be submitted in English. Interested bidders should complete all information requested in Section 4: Requirements and Criteria and submit it in the form of an email attachment. It is recommended that attachment with files sizes exceeding 10 MB be compressed (via a zip folder) to ensure message delivery. If a bidder does not receive confirmation of receipt by RMI-CWR, the bidder should assume their submission was not received.

Any qualifications submitted after the submission deadline will, in RMI-CWR's sole discretion, be rejected without further consideration. RFQ responses may be submitted prior to the submission deadline, however only complete RFQ responses will be evaluated.

RMI-CWR reserves the right to seek additional information from interested bidders upon

submission of their qualifications, and may require interested bidders to submit supplementary/additional information with respect to their RFQ response.

In preparing their qualifications, interested bidders are expected to examine all documents and information provided in the RFQ in detail. Material deficiencies in providing the information requested may result in rejection of a submission.

Joint ventures or sub-consultants will not be considered. Interested companies/firms/organizations will be required to submit qualifications based on their capacity alone. Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) may be submitted for each position.

A brief description of the company/firm/organization and an outline of recent experience of each relevant professional staff member on assignments of a similar nature are required. For each assignment, the outline should indicate the names of professional staff who participated, duration of the assignment and contract amount. Information should be provided only for those assignments for which the entity was legally contracted by the client. Assignments completed by individual professional staff working privately or through other consulting firms cannot be claimed as the experience of the company/firm/organization, or that of their associates, but can be claimed by the professional staff themselves in their CVs. As previously indicated, companies/firms/organizations should be prepared to substantiate the claimed experience if so requested by RMI-CWR.

7. Qualification Evaluation:

From the time the qualifications are received to the time the short list of finalists is complete, the companies/firms/organizations should not contact RMI-CWR on any matter related to its qualifications. Any effort by companies/firms/organizations to influence RMI-CWR in the examination and evaluation of qualifications may result in the rejection of the submitted qualifications.

Evaluation shall be based on a pass/fail basis. Qualifications submittals that do not meet all of the said requirements and criteria will be rejected.

After the short list evaluation is completed, RMI-CWR shall inform interested bidders that did not meet the minimum requirements/criteria or were considered non responsive to the RFQ.

Interested bidders that were short listed will be notified and may be required to participate in an introductory interview process via conference call. RMI-CWR shall simultaneously reach out to references of the short listed bidders. The aim would be to have non-shortlisted and shortlisted bidders notified within 1 month of the submission deadline.

8. Negotiations:

There will be no contract negotiations until a quotation is accepted from a pre-qualified company/firm/organization included in the short list for a specific future scope of work.

9. Confidentiality:

Information relating to evaluation of qualifications shall not be disclosed to any persons not officially associated with the process until the publication of the award of contract.

10. Qualifications Submission Details:

Respondents must submit all required documentation via email to <u>cburgess@carbonwarroom.com</u> no later than Monday **October 3, 2016, 11:59 PM Eastern Time.** Additional information includes:

- The Subject line of the email should be titled: "RMI-CWR RFQ "Company Name"
- Receipt of all submittals will be confirmed electronically.
- The respondent answers should be as concise as possible.

Please note, interested bidders should only submit requested documentation. Incomplete proposals will not be considered.

Section 4: Requirements and Criteria

Interested bidders must meet the following requirements and criteria:

- A minimum of four years of experience in providing commercial advisory services in the renewable energy sector.
- Demonstrated experience in similar assignments with at least three successfully completed contracts during the past five years.
- Experience working in small island states.

Please note, statement of qualifications submitted by interested companies/firms/organizations will remain valid one (1) calendar year (365 days) after the submission deadline. During this period, entities shall maintain the availability of Professional staff outlined in their qualifications or equivalent.

Interested bidders must complete the following:

1. Name and Contact Details:

- a. Company Name
- b. Primary Contact
- c. Business Address
- d. Website Address
- e. Telephone Number of Primary Contact
- f. Email Address of Primary Contact

2. Company/Firm/Organization Profile (*Provide a brief (two pages) description on the background of the company/firm/organization, experience and expertise)*

3. List a minimum of three (3) Relevant Completed Assignments within the last five (5) years.

| Assignment name: | Approx. value of the contract (in current US\$ or Euro): |
|---|--|
| Country: Location within country: | Duration of assignment (months): |
| Name of Client: | Total N^{2} of staff-months of the assignment: |
| Address/email/phone number of Client: | Approx. value of the services provided by your firm under the contract (in current US\$ or Euro): |
| Start date (month/year): Completion date (month/year): | N ^o of professional staff-months provided by associated Consultants: |

| Name of associated Consultants, if any: | Name of senior professional staff of your firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader): |
|---|--|
| Narrative description of Project: | I |
| Description of actual services provided by your | staff within the assignment: |

4. Professional Staff Type and Rates (*Sample Provided*):

| Staff Type | Hourly/Daily Rate (USD) |
|----------------------------------|-------------------------|
| Administration | |
| Project Manager | |
| Engineer Assistant / GIS Analyst | |
| Project Engineer – Level 3 | |
| Project Engineer – Level 2 | |
| Project Engineer – Level 1 | |
| Senior Project Engineer | |
| Principle Engineer | |
| Senior Principle Engineer | |
| Senior Advisor/Director | |

Interested bidders must provide evidence that the basic salaries indicated in the attached table are taken from the firm's payroll records and reflect the current salaries of the staff members listed. Also please provide the *per diem* travel allowances to be paid for this assignment to the staff members listed, and confirmation that overhead does not include any bonuses or other means of profit-sharing.

[Name of Consulting Firm]

Signature of Authorized Representative

Date

Name: _____

Title:

Please use the template (or similar template which includes all required information) for each professional staff member. Alternative professional staff shall not be proposed, and only one (1) curriculum vitae (CV) may be submitted for each position.

Curriculum Vitae (CV) for Proposed Professional Staff

| 1. | Proposed Position [only one candidate shall be nominated for each position]: |
|----|--|
| 2. | Name of Firm [Insert name of firm proposing the staff]: |
| | |
| 3. | Name of Staff Member[Insert full name]: |
| 4. | Nationality: |
| 5. | Education [Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment]: |
| 6 | Membershin in Professional Associations |

- 7. Other Training [Indicate significant training since degrees under 5 Education were obtained]:
- 8. Countries of Work Experience: [List countries where staff has worked in the last ten years]:_____
- **9. Languages** [For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]: ______
- **10. Employment Record** [Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held.]:

From [Year]: _____ To [Year]: _____

Employer:

Positions held:

| 11. Detailed Tasks Assigned | 12. Work Undertaken that Best Illustrates Capability to |
|------------------------------------|---|
| under this assignment] | Handle the Tasks Assigned |
| | [Among the assignments in which the staff has been involved, indicate the following information for those assignments that best illustrate staff capability to handle the tasks listed under point 11.] |
| | Name of assignment or project: |
| | Year: |
| | Location: |
| | Client: |
| | Main project features: |
| | Positions held: |
| | Activities performed: |
| | |

13. Publications: [please list any relevant publications]

14: Software competencies or other relevant information:

15. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date: ______ Day/Month/Year

Full name of authorized representative:

Annex 1: Islands Energy Program Snapshot



ISLANDS ENERGY PROGRAM STATEMENT OF QUALIFICATIONS

BACKGROUND

ISLAND NATIONS experience high and volatile energy prices, and their economies are extremely vulnerable to fluctuations in global oil prices. When combined with heavy reliance on fossil fuel imports, the situation presents a barrier to sound socioeconomic development for countries in the Caribbean and beyond. Natural resources offer strong potential for local generation of renewable energy. As the cost of renewable energy technologies continues to decline, the integration of renewable energy into existing systems can benefit utilities and customers, resulting in a more resilient community. The Islands Energy Program is best positioned to help island nations accomplish these goals.

By **ACCELERATING THE TRANSITION** of islands toward energy systems that include renewable energy, energy efficiency, and other resources, island governments, utilities, and stakeholders can:

- Stabilize the cost of electricity for households and businesses
- Reduce dependence on imported fossil fuels and reduce greenhouse gas emissions
- Create investment opportunities and investment returns on-island
- Increase the resiliency of distribution grids and defer maintenance on transmission and distribution systems

• Diversify local job markets with higher-skilled, better-paying jobs In the process, the Islands Energy Program will create a blueprint that can be replicated in other isolated economies and possibly on a continental scale, as well.

PARTNERSHIP ORGANIZATIONS

ROCKY MOUNTAIN INSTITUTE AND CARBON WAR ROOM Rocky Mountain Institute (RMI)— an independent nonprofit founded in 1982—transforms global energy use to create a clean, prosperous, and secure low-carbon future. It engages businesses, communities, institutions, and entrepreneurs to accelerate the adoption of market-based solutions that cost-effectively shift from fossil fuels to efficiency and renewables. In 2014, RMI merged with Carbon War Room (CWR), whose business-led market interventions advance a low-carbon economy. The combined organization has offices in Basalt and Boulder, Colorado; New York City; Washington D.C.; and Beijing.

DNV GL Driven by its purpose of safeguarding life, property, and the environment, DNV GL enables organizations to advance the safety and sustainability of their business. We provide classification and technical assurance along with software and independent expert advisory services to the maritime, oil & gas, and energy industries. We also provide certification services to customers across a wide range of industries. Operating in more than 100 countries, our 15,000 professionals are dedicated to helping our customers make the world safer, smarter, and greener.

UNITED NATIONS DEVELOPMENT PROGRAMME The United National Development Programme (UNDP) works in nearly 170 countries and territories, helping to achieve the eradication of poverty, and the reduction of inequalities and exclusion. We help countries to develop policies, leadership



skills, partnering abilities, and institutional capabilities and to build resilience in order to sustain development results.

GLOBAL ENVIRONMENT FACILITY The Global Environment Facility (GEF) was established on the eve of the 1992 Rio Earth Summit to help tackle our planet's most pressing environmental problems. Since then, the GEF has provided \$14.5 billion in grants and mobilized \$75.4 billion in additional financing for almost 4,000 projects. The GEF has become an international partnership of 183 countries, international institutions, civil society organizations, and private sector to address global environmental issues.

OUR HISTORY

Rocky Mountain Institute-Carbon War Room's Smart Island Economies Program merged to form one integrated team: the Islands Energy Program. The team will guide islands to develop energy transition strategies, scale renewable projects, and support the capacity of islands to achieve their sustainable energy goals. It will do this by delivering technical expertise; engaging with governments, utilities, and island stakeholders; and providing communications support.

With an independent, objective, and fact-based approach, this team brings experience gained from engagements with island and continental governments and utilities to solve the toughest energy challenges. It brings a diverse skill set in integrated resource planning, project identification and development, construction implementation support, and a range of business advisory services. Additionally, the program leverages an array of consulting services from leading engineering and consulting firms in the power generation and transportation sectors.

Our program will:

- Accelerate the energy transition of islands toward a future sustainable energy system with renewable energy and energy efficiency
- Attract investment and create jobs through responsibly transitioning to renewables
- Provide proven, trusted, and open-minded partners that execute national energy goals and strategies
- Ensure a stable, reliable, and affordable future energy supply
- Build capacity, develop integrated platforms, share knowledge, and provide good public relations

The team's approach is facilitated by a comprehensive plan, codeveloped with the U.S. Department of Energy, called "The Playbook," which provides guidance and tools for islands to develop and execute their energy transition vision.

THE PLAYBOOK

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



CARILEC RENEWABLE ENERGY COMMUNITY (CAREC)

CAREC is a virtual platform for island energy practitioners—it aims to speed energy project implementation by connecting island energy practitioners to the resources they need. It will foster continuous knowledge exchange between Caribbean utility engineers, government practitioners, and development partners active in the sustainable energy space. It provides a virtual and accessible knowledge platform focused specifically on renewable deployment approaches, tools, and templates, and strengthens partnerships between governments, utility companies, and external specialists.

THE SERVICES WE PROVIDE

Energy Transition Planning and Integrated Resource Plan (IRP) Development: Developing a lasting energy transition plan requires a few key elements. First, an assessment of the current energy system is needed, including electrical infrastructure, operational approaches, and cost considerations. Second, the strategy requires holistically assessing all energy options, while analyzing the energy, economic, operational, and business-model implications. Finally, the strategy entails bringing together governments, utilities, and key stakeholders to facilitate a phased energy transition planning process that includes stakeholder engagement in the form of workshops and working sessions. This process culminates in an energy roadmap for the country, derived from the critical inputs and guidance of island stakeholders.

Grid Integration and System Impact Studies: Before a renewable energy project is moved into the planning phase, the team performs a grid integration analysis and a system impact study to determine the maximum capacity of new generation that can be connected to the host utility's circuits. The program arranges for DNV GL to provide this service at no cost to the host utility.

Energy Efficiency Program Development: Studies routinely find energy efficiency to be the cheapest energy resource, and energy efficiency creates more than 17 jobs per US\$1 million invested (double the rate created by manufacturing or energy generation). We have experience in analyzing portfolios of buildings to determine the appropriate technical and financial solutions. In particular, RMI-CWR's work with U.S. government buildings prepares us to improve the energy efficiency of public buildings, while selectively including onsite energy production.

Electric Utility Business Models Redefinition:

Even the most forward-thinking countries can be unsure of how best to make utilities stable and profitable, particularly in the face of cash-flow risks, including those brought on by energy efficiency and renewable energy. We offer assistance to determine the best approach and to assess the options, including the Integrated Utility Service Model (which enables utility ownership of new types of energy efficient and renewable technologies).





Microgrid Analyses: Microgrids are becoming a cost-effective and stable source of distributed power for isolated communities. In addition to internal resources at RMI, the team offers contracted expertise from DNV GL to provide world-class microgrid assessments, modeling, and microgrid design options for Caribbean utilities.

Renewable Energy Development: Project development is the most inherently risky phase of any renewable energy project. There is uncertainty as to the technical and financial feasibility of projects in this critical early stage. We provide comprehensive project development services to mitigate risk and lower project costs, including the cost of capital and power purchase rates. This is accomplished by mitigating risk early in the project development process and preparing projects until they achieve a shovel-ready and bankable status.



With experienced project developers on staff and with the expertise of DNV GL, we prepare requests for proposals for engineering, procurement, and construction (EPC) or independent power producer (IPP) projects that significantly reduce risk to the developer or contractors and provide a long-term value for the utility.

LED Street Lighting Procurement and Installation Consultation: With over 25,000 luminaires tested and several RFPs published or under development, the team is well positioned to provide objective advice and technical support to governments and utilities that want to transition to LED lighting. LED lighting delivers significant cost savings and enhanced gridtied and off-grid lighting illumination systems and control options.

IPP and EPC Contract Negotiation Support: CCI, RMI-CWR, and DNV GL have a depth of knowledge and experience to provide power purchase contract negotiation support for utilities.

Legal and Policy Reviews: Determining which elements of the energy transition are possible within current policy and legislation is an important foundation for renewable energy projects. Through our partnerships with law firms Sutherland and Paul Hastings and Holland & Knight, the team provides objective reviews of legislation, regulations, and policy documents related to the development of utility-scale and decentralized energy. Reviews identify potential legal barriers to renewable penetration and inform policy and regulatory best-practice recommendations. In addition, tailored legal reviews are offered, such as general legal reviews of letters of intent and term sheets, host country and concession agreements, public-private partnership agreements, credit support, and credit agreements, among others. The team can also provide a neutral counsel on policy, regulatory, and other legal considerations associated with natural gas energy initiatives and the like.



Project Structure and Finance: With the expertise of our partner Delphos International, governments and utilities are supported during all aspects of the project structuring and financing process—from project identification to implementation. Together, the team provides options for project structures as well as recommendations for optimal financing structures.

Construction Oversight: As an "owner's representative," the team provides third-party oversight and implementation support during construction to ensure the quality, safety, and timeliness of all of projects.

Communications and Public Relations: RMI-CWR communications offerings include:

- Media and public relations Publicizing project milestones, providing vendor engagement, and promoting renewable energy and energy efficiency commercial opportunities in key geographies outside the region
- Public awareness campaigns Supporting governments with concepts and materials for renewable energy campaigns to reach the local populace and generate greater awareness internationally
- Messaging and marketing Disseminating messaging and marketing collateral, e.g., press releases, one-pagers, webpages, video, etc.

THE EXPERTISE WE OFFER

Stephen Doig, Managing Director, RMI-CWR's Islands Energy Program

Stephen is a managing director with Rocky Mountain Institute. His islands work is underpinned by his broad experience across RMI's program areas, including buildings, electricity, industry, and transportation. He has led teams that have delivered results including a 40% decrease in energy use at the Empire State Building, a data center that uses 80% less energy, and an energy strategy for a major U.S. utility that will incorporate 30% renewable energy by 2030. He established RMI's work on lowering the cost of solar PV and led the team behind RMI's book, Reinventing Fire, which outlines the transition of the U.S. to renewable energy. His current work in solar PV focuses on making this resource available to lower income communities.

Prior to joining RMI, Stephen worked at McKinsey & Company, where he focused on operational excellence, including procurement, manufacturing, network configuration, product development, and global sourcing. He held a leadership role in McKinsey's Sustainability practice, where he focused on energy efficiency in a wide range of sectors. Stephen served as a senior advisor to the U.S. Air Force on energy efficiency, leading a team that developed a strategy to reduce energy use by 30% in 10 years and increase adoption of renewable energy. He's held faculty positions at Wharton School of the University of Pennsylvania and at Carleton College.

Stephen earned a bachelor's in chemistry from Dartmouth and a Ph.D. in physical chemistry from the University of California at Berkeley. He completed his postdoctoral research at the Mayo Clinic and the California Institute of Technology.



Justin Locke, Director, RMI-CWR's Islands Energy Program

Justin Locke is the director of the Islands Energy Program at the Rocky Mountain Institute-Carbon War Room. He has over 15 years of international development and project management experience, most of which was dedicated to addressing the unique development challenges faced by small island developing states in the Caribbean and Pacific. He has a wealth of technical and operational experience in disaster risk reduction, climate change adaptation, distributed renewable energy systems, livelihoods, and social mobilization.

Before RMI-CWR, Justin was a disaster risk management specialist at the World Bank and managed one of the largest per capita investment portfolios in company history. He was instrumental in accessing climate financing for Eastern Caribbean countries and led national planning processes designed to develop and deploy tailored, broad-based national adaptation and mitigation strategies for mulitsector climate resilience.

Justin worked for the United Nations Development Program (UNDP) in the Pacific Region as a development specialist at the Regional Pacific Center in Fiji, which provides technical assistance to more than 14 Pacific island countries. He was also the community/recovery program manager for the UNDP Multi-Country Office in Samoa, where he designed and implemented the UNDP's regional flagship program in the Polynesian subregion.

Justin holds a master's degree in public administration in international management from the Monterey Institute of International Studies and a dual bachelor's degree from the University of California. From 2002 to 2004, he was a Peace Corps volunteer in the Republic of Kiribati.

Christopher Burgess, Director of Projects, RMI-CWR's Islands Energy Program

Chris is the Director of Projects with Carbon War Room. He oversees and manages RMI-CWR's Islands Energy Program's renewable energy and energy efficiency project portfolio. He has over 15 years of experience as an environmental professional and project manager with practice in a variety of multidisciplinary energy and infrastructure projects. Chris has a wealth of environmental, renewable energy, and project management experience.

Previously Chris was the chief operating officer at Alpha Energy, a renewable energy development company. There he was responsible for the company's feasibility studies and project management for commercial and utility scale wind and solar installations. He managed multi-million dollar projects both domestically and internationally with over 125 MW of installations. Chris has a master's in environmental science and policy from Johns Hopkins University and a bachelor's degree in coastal and environmental planning from East Carolina University.



Roy Torbert, Manager, RMI-CWR's Islands Energy Program

Roy is a manager with Rocky Mountain Institute. He specializes in integrated energy planning, project cost analyses, and renewable and efficiency finance. Roy manages the RMI-CWR islands team, helping Caribbean islands reduce their dependence on costly fossil fuels, and currently assists the governments and utilities of Aruba and Saint Lucia. He's worked with leading universities and global multinationals (including McDonald's Corporation) to analyze net-zero opportunities and deliver roadmaps to reaching carbon reduction goals.

Prior to joining RMI, Roy was at Booz Allen Hamilton, working on software implementation and strategic management projects. He also implemented and managed a procurement-focused software system for a Department of Defense client.

Roy graduated from the College of William and Mary with a degree in international relations and business finance. He has been trained in project management, software implementation, and data analysis.

Katya Whyte, Senior Associate, RMI-CWR's Islands Energy Program

Katya is a senior associate with Carbon War Room. She supports and coordinates the islands program, specifically as the project manager for Turks and Caicos. Katya has acquired invaluable experience supporting operations, and she has a deep knowledge of all the key pieces that are integral to the implementation and success of a strategy.

In 2010, Katya joined Virgin Unite, the charitable foundation of the Virgin Group, and worked researching companies committed to sustainable initiatives for Richard Branson's book Screw Business as Usual. This stimulated her interest in environmental causes and prompted her move to Carbon War Room.

Katya is a native speaker of English, French, and Croatian, and is also competent in Spanish. Katya has a bachelor's degree in economics and social sciences and a degree in East European studies.

Katie Lau, Senior Associate, Communications and Marketing, RMI-CWR's Islands Energy Program

Katie is a senior associate with Carbon War Room. She manages program communications, marketing, and the energy transition-focused knowledge platform project known as the CARILEC Renewable Energy Community (CAREC).

Prior to joining CWR, Katie was employed by ConocoPhillips and Phillips 66, multinational energy companies that specialize in upstream, midstream, and downstream assets, where she held roles spanning from corporate planning and strategy to business-to-consumer brand marketing. Notably, she was part of the knowledge management group where she built 70+ business-focused networks where employees exchanged best practices and engaged in discussions to save the company money.

Katie has a bachelor's degree is public relations and marketing from Oklahoma State University. She has been trained in project management, Lean Six Sigma, knowledge management, and digital media.



Kate Hawley, Senior Associate, RMI-CWR's Islands Energy Program

Kate is a senior associate with Rocky Mountain Institute. She is the Colombia project manager and has a background in climate resilience, energy efficiency, international development, and business administration.

Prior to joining RMI, Kate led research program efforts for the Institute for Social and Environmental Transition-International, exploring the economic returns of climate resilient development pathways in both Vietnam and India. Her work experience spans environmental consulting with Hitachi consulting, managing energy efficiency programs for the Energy Trust of Oregon, supporting a start-up company exploring the opportunities of wave energy development, and managing the LEED certification process for both new construction and tenant improvements.

Kate has a bachelor's degree in hotel administration from Cornell and a master's in sustainable international development from Brandeis University.

Kaitlyn Bunker, Senior Associate, RMI-CWR's Islands Energy Program

Kaitlyn is a senior associate with Rocky Mountain Institute. She is an expert in microgrids and distributed renewable resources. She has been the lead engineer with several microgrid assessments and utility models for the Islands Energy Program.

Kaitlyn joined the team after completing a Ph.D. in electrical engineering from Michigan Technological University in Houghton, MI. Her dissertation research focused on microgrids and optimizing control strategies for distributed renewable resources. Kaitlyn is a 2010 recipient of the National Science Foundation Graduate Research Fellowship.

In 2013, Kaitlyn received the Engineering Innovations Fellowship from the National Science Foundation and the American Society for Engineering Education. This fellowship provides the opportunity to work as a researcher in a corporate setting during the summer; Kaitlyn worked with HOMER Energy on its software for modeling microgrids and hybrid electric systems

Owen Lewis, Project Manager, RMI-CWR's Islands Energy Program

Owen is a project manager with RMI. From April 2009 to January 2016, he served as the Government of Montserrat's project director.

Owen was a member of the small local team working with the CCI and RMI-CWR Islands Energy Program that delivered the Montserrat National Energy Policy, the Energy Strategy, the Sustainable Energy Plan Initial Programme of Action, and the Monitoring and Evaluation Framework for the Sustainable Energy Plan-Initial Programme of Action 2016–2020.

He has a bachelor's degree in natural sciences from Castleton State College in the U.S. and has a degree in business management and risk management. Owen became a PRINCE2 practitioner in 2007 while working within the D. A. Stuart Ltd. U.K. Chemical Management Programme, the last eight years of which as the programme coordinator.



Jeremiah Leslie Serieux, Saint Lucia National Project Coordinator, RMI-CWR's Islands Energy Program

Jeremiah is a national project coordinator at RMI. His role involves liaising with the electric utility LUCELEC and the Government of Saint Lucia, through the Energy Section of the Ministry of Sustainable Development, Energy, Science, and Technology. He provides support for ongoing renewable energy and energy efficiency initiatives.

Jeremiah's previous experience includes a project management role at the United Nations Food and Agriculture Organisation and a position as the national project coordinator for the development of agriculture in the Windward Islands. He also worked in national development as the finance and accounts manager and chief operating officer for the National Development Corporation, now called Invest Saint Lucia.

He earned a degree in management studies and accounting from the University of the West Indies and has a CGA/CPA certification



CLIENT AND PROJECT LIST

Governments

- Government of Anguilla
- Government of Aruba
- Government of the Bahamas
- Government of Belize
- Government of Colombia
- Government of Dominica
- Government of Jamaica
- Government of Montserrat
- Government of Grenada
- Government of Saint Lucia
- Government of Saint Vincent and the Grenadines
- Government of the Seychelles
- Government of Turks and Caicos

Utilities

- Bahamas Power and Light
- Belize Electricity Limited
- Montserrat Utilities Limited
- Saint Lucia Electricity Services Limited
- Saint Vincent Electricity Services Limited
- Fortis
- Seychelles Public Utilities Corporation
- Grenada Electricity Services Limited

PROJECT LIST The Islands Energy Program is supporting the development of more than 20 projects on islands. Over the past three years, our assistance has been instrumental in helping governments and utilities identify and advance bankable and sustainable renewable energy and energy efficiency projects. We provide comprehensive support for projects from conceptual design through commissioning, while building robust local capacity at each stage of the process.

ENERGY PLANNING PROCESSES

- St. Lucia Integrated Resource Plan / National Energy Transitions Strategy (NETS)
- St. Vincent Geothermal Integration Study
- St. Vincent Integrated Resource Plan
- San Andres and Providencia Energy Transition Planning Process
- Montserrat Renewable Energy Tariff Study
- Montserrat Integrated Resource Plan
- Turks and Caicos / Fortis TCI IRP Review





ENERGY EFFICIENCY AND DISTRIBUTED SOLAR PROJECTS

- 250 kW Providencia (Colombia) Hospital Solar and Energy Efficiency Project
- LED Street Lighting Projects in Bahamas, Belize, Montserrat, San Andres, St. Lucia, and St. Vincent
- Bahamas National Sporting Complex Energy Efficiency and Solar Project

MICROGRID DEVELOPMENT PROJECTS

- 10 MW Bahamas Family Islands Solar and Storage Project
- 8 MW Grenadines Solar and Storage Project
- St George's Caye Belize Microgrid
- Turks and Caicos Microgrids

RENEWABLE ENERGY GENERATION PROJECTS

- 3.2 MW St. Lucia Utility Solar
- 1 MW Montserrat Solar/Storage
- 12 MW San Andres (Colombia) Utility Wind
- 3 MW San Andres (Colombia) Utility Solar
- Geothermal Projects in Montserrat, St. Vincent, and St. Lucia
- 4 MW Seychelles Floating Marine Solar
- 5 MW Aruba Solar for Schools
- 1 MW Anguilla Utility Solar
- 26.4 MW Aruba Utility Wind
- 1 MW Turks and Caicos Utility





ROCKY MOUNTAIN INSTITUTE INNOVATION CENTER -BASALT OFFICE

Rocky Mountain Institute Innovation Center 22830 Two Rivers Road Basalt, CO 81621 P: (970) 927-3851



BOULDER OFFICE

Rocky Mountain Institute 1820 Folsom Street Boulder, CO 80302-5703 P: (303) 245-1003





NEW YORK OFFICE

Rocky Mountain Institute 29 East 19th Street, 4th Floor New York, NY 10003 P: (315) 266-9600



WASHINGTON D.C. OFFICE

1750 K Street NW Suite 400 Washington DC 20006 P: (202) 717-8448