

Impacts of Our Expert  
Policy Assistance

# Americas

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# Section 1: Regional Impacts:

## Caribbean:

### 1. Supporting Clean Energy Policy for the Caribbean Community

The Ministry of Energy and Energy Affairs (MEEA), Government of the Republic of Trinidad and Tobago, requested an expert to advise the Minister and his staff on sustainable energy matters during the 41st Council for Trade and Economic Development (COTED) proceedings. The request focused on three areas: the interaction between feed-in tariffs and net billing, the adoption of regional and national sustainable energy targets, and proposed plans for transmission interconnection between member states.

In response to the request, a Solutions Center expert provided on-call assistance to the MEEA staff during the conference and attended the closed ministerial meeting. During the meeting, CARICOM member states ratified the draft Energy Policy and adopted recommendations to set regional and national sustainable energy targets, and explore net billing policies. The support provided through the Solutions Center's [Ask an Expert](#) service helped inform the drafting of the Energy Policy and supported the decision of Trinidad and Tobago to ratify the Policy during COTED. The Energy Policy will now be brought to the Cabinets of each member state for consideration.

#### TESTIMONIAL



*"On behalf of the Minister of Energy and Energy Affairs, GORTT, I wish to sincerely thank you for affording us the opportunity to access the consultancy services of Mr. Wilson Rickerson for the just concluded 41st Special COTED (Energy) in Trinidad and Tobago. Mr. Rickerson's participation in the CSERMs workshop was invaluable and he was able to add an experienced outlook on the feed-in tariffs mechanisms from across the world to aid the regional strategies currently under consideration." – Randy Ramadhar Singh, Advisor to the Minister on Renewable Energy, Ministry of Energy and Energy Affairs, Government of the Republic of Trinidad and Tobago*

## Section 2: Section-Specific Impacts:

### 1. Argentina

#### Developing Weatherization Programs

The Clean Energy Solutions Center provided assistance to the Housing, Sustainability, and Energies Forum (FOVISEE), an NGO that supports municipalities in Argentina with developing new models for energy efficient affordable housing, rehabilitated housing through the use of energy efficiency criteria and technology, and audited energy use and assessed opinions and perceptions regarding energy consumption in low-income neighborhoods. Solutions Center [experts](#) worked with FOVISEE to design a weatherization program to be piloted in the city of Rosario and replicated in municipalities throughout the country. The program will include such elements as design, implementation, and evaluation of field projects in low-income neighborhoods and generation of a cultural change that promotes awareness of energy efficiency in housing and particularly in low-income housing.

#### COMMENT FROM REQUESTOR



*"Your help has been essential for project development and we hope to keep Clean Energy Solutions on board!"* — Ashley Valle, Project Manager, Argentina Housing, Sustainability and Energies Forum

#### Impact of Assistance

The assistance provided by the Clean Energy Solutions Center will help FOVISEE develop a model for public housing policy in Argentina, demonstrating that sustainability and energy efficiency criteria can be included in housing projects without large additional costs. FOVISEE also demonstrated that the application of this criteria translates into significant reductions in energy costs for the families and a marked improvement in their quality of life (hygiene, comfort and health), as well as benefits to the environment due to reduced CO2 emissions. The program design and management is aimed at generating policy models that can be transferred to local, national and regional governments and other public policies institutions.

## 2. Chile

### Informing Energy Access and Clean Energy Project Finance Programs

The Clean Energy Solutions Center assisted the Chilean Renewable Energy Centre (CREC) with energy access programs focused on renewable energy projects. Solutions Center [policy experts](#) also provided information on policies that will increase success of renewable energy projects in a market that promotes full competition, viability of publicly backed guarantees to manage commercial risk for renewable energy projects in an unregulated environment, and best practices on engaging venture capitalists to finance renewable energy research and development projects.



### Impact of Assistance

Assistance provided through the Solutions Center provided CREC with guidance to and information needed to develop clean energy access programs and projects in remote and isolated communities within Chile. Additionally, Solutions Center support helped CREC develop fundamental understanding and knowledge of how to design policies that enable financing and encourage investment in clean energy projects. These programs and policies have the potential to significantly increase deployment of renewable energy technologies in Chile.

## 3. Grenada

### Helping Grenada Meet Its Clean Energy Goals

Solutions Center experts assisted the Grenada Ministry of Finance and Energy and the Ministry of Planning, Economic Development and Trade with a review of the country's national energy policy and plans. The review was designed to assess whether Grenada's current policy is structured to successfully meet its clean energy goals.

Grenada depends on imported fossil fuels to supply nearly 100% of its electricity generation, transportation, and heating and cooling needs. With its strong solar and wind resources, as well as possible geothermal and biomass resources, Grenada is seeking to diversify its energy mix, take advantage of its indigenous energy potential, and reduce its vulnerability to rising oil prices and supply disruptions. The Grenada National Energy Policy of 2011 details a 20-year vision and ambitious 10-year action plan for Grenada to support its clean energy goals.



Following their review of this policy, Solutions Center experts recommended setting achievable renewable energy targets supported by a Renewable Portfolio Standard and adopting policies and measures to encourage investment. The experts also identified areas of opportunity for Grenada, which include developing an approach to utility-scale renewable energy procurement, supporting small-scale generators, introducing a feed-in-tariff, developing grid codes and grid integration practices for high penetration of variable renewables, and establishing utility regulator paradigms that enable scale-up of renewable energy generation.

### **Impact of Assistance**

Grenada's policymakers will use the information provided by the Solutions Center to manage the growth of the country's renewable energy market, strengthen its energy policies and plans, and develop a suite of regulations and policies to meet the 2011 National Energy Policy.

## 4. Guyana

### Structuring Energy Efficiency and Biofuels Policies

The Clean Energy Solutions Center is assisting the United Nations Development Programme (UNDP) with development of energy efficiency campaign approaches for local governments, developing an energy audit program, and structuring a biofuels policy. For the energy efficiency campaign, Solutions Center [experts](#) provided recommendations on optimal efficient use and switching of appliances, such as air conditioners. Additionally, Solutions Center experts provided information on proven successful energy audit training programs and materials, and guidance on specific biofuels that would be viable for conditions and engine systems in Guyana.

#### Impact of Assistance

The assistance provided will allow the governments in Guyana to incorporate effective requirements into their energy efficiency policies that will result in reduction of energy use and energy costs. Biofuels policies will be designed to include language on alternative fuels that will provide highest results for Guyana. Guyana will be able to facilitate capacity building through development of successful training programs for building energy auditors.

#### TESTIMONIAL



*"The Clean Energy Solutions Center provided quick and relevant responses to my questions. The excellent information provided will be useful in developing an energy efficiency campaign and energy audit training program in Guyana. Correspondence by the CESC has been pleasant, prompt, dedicated and diligent."* – Henri Horn, United Nations Development Programme Guyana, Clean Energy and Climate

## 5. Mexico

### Advising Efficiency Programs

The Clean Energy Solutions Center assisted the National Commission for Energy Efficiency (CONUEE) with developing a country specific webinar training that provided information on incentives, outreach activities, and education that Mexican governments can use to develop programs similar to EnergyStar and LEED. A subsequent request for assistance on cool surface policies resulted in [Solutions Center experts](#) providing information on actual and proposed international cool surface codes and standards, and incentive programs designed to accelerate deployment of cool surface technologies.



### Impact of Assistance

Potential impacts of the assistance provided under the two requests are the design and implementation of effective and replicable appliance labeling programs, building certification and rating programs, and cool surface policies throughout Mexico.

The CONUEE continues to work toward developing regulations and standards to promote use of cool surface materials and practices. The information provided by the Solutions Center was used to structure a cool surfaces workshop agenda and activities, and will be useful in developing a work plan for Mexico going forward. The Global Cool Cities Alliance is collaborating with CONUEE on this program.

#### **ENERGYSTAR AND LEED**

##### CERTIFICATION PROGRAMS

*"The Press Department of CONUEE had the opportunity to learn from the experiences of EnergyStar and LEED Certification Programs in regard to their promotion campaigns. The information provided to CONUEE will be useful during the planning stage of the communication campaigns for our Voluntary Certification Program later this year, particularly on mass media hiring."*

#### **COOL SURFACE POLICIES**

*"The CESC, through Kurt Shickman from GCCA, provided CONUEE with useful information on international codes and activities being deployed in regard to cool roofs/surfaces. This information was provided to the technical areas within our organization as background information to CONUEE's participation in the "Cool Surfaces for Building Envelop Energy Efficiency Workshop," on 28 February 28, 2012." — Adolfo Chavez, Director for Financing and Environment at CONUEE*



## 6.Nicaragua

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### Strengthening Nicaragua's Renewable Energy Framework

2 June 2014

*The Solutions Center recently assisted Nicaragua by providing a policy gap analysis and recommended strategies for delivering clean power to rural and remote populations. As a result, Nicaragua's renewable energy law is being modified and the country is considering different rural electrification approaches.*



When Julio Pérez, Director, Alternative and Renewable Energies Directorate for the Ministry of Energy and Mines of Nicaragua, asked the Solutions Center to provide assistance in strengthening the country's renewable energy policy framework, a shift was occurring in Nicaragua's renewable energy focus.

Historically, Nicaragua's renewable energy policy had focused on tapping into the country's significant hydropower potential. But with costs decreasing for other renewable energy technologies, Nicaragua became interested in supporting investment in wind, solar, geothermal power, as well as biomass and biogas.

The country's aggressive National Development Plan calls for 94% of its electricity to be supplied by renewable energy sources by 2017. While hydro, wind and geothermal projects underway are expected to achieve this target, questions still remain over how to better support renewable energy development in Nicaragua.

At the time of Pérez's request, Nicaragua also needed to create a better regulatory framework to support renewable energy development in rural and remote regions to achieve the country's target of between 95% and 100% electricity access by 2020. The current electricity access rate is approximately 74%, and many communities that have access continue to rely on expensive diesel fuel.

Pérez's request to the Solutions Center came in two parts. The first request was to suggest different approaches for accelerating renewable energy development in rural and remote regions. The second was to conduct a policy gap analysis of Nicaragua's current renewable energy law (Ley 532). The current law does not have adequate regulatory support for non-hydro-based renewable energy development, nor does it provide regulatory structures important to grid operators, investors, developers, and project operators.

In response to these requests, the Solutions Center began by collaborating with IRENA through the Renewable Energy Policy Analysis Network (REPAN) and a Renewables Readiness Assessment (RRA)—a stakeholder-driven analysis of the country-wide conditions for clean energy development and deployment.

"The RRA we conducted in Nicaragua was more than a workshop—it was a high-level roundtable that involved a detailed discussion among people from the developer community, government and lawyers to kick-start the renewable energy industry process," said Toby Couture, a clean energy policy expert who provided assistance to Nicaragua on behalf of the Solutions Center. "It was a big event, with six major working groups of between eight and twelve people—as well as interested citizens and others involved in the renewable energy industry in attendance."

Couture's role during the RRA was to provide a global perspective on how other countries have solved similar challenges and to identify policy solutions.

"It's useful to go and meet with ministry representatives, see the presentations from government and industry, and get first-hand insight into local challenges and market development," he said of the RRA process. "This enables the Solutions Center to provide targeted, context-based assistance, coming from the real challenges these countries are facing on the ground."

After returning home from the workshop, Couture analyzed different approaches to rural electrification and drafted a gap analysis report for the Ministry of Energy and Mines. This report will enable Nicaragua to identify strategies to deliver clean power to populations without energy access in rural and remote locations of the country. The gap analysis also provided recommendations for creating rules governing forecasting requirements for

renewable energy project operators, developing power purchase agreement provisions and standard contracts to decrease transaction costs, mapping existing substations, and clarifying existing tax laws.

“The Solutions Center’s tailored assistance was designed to quickly and directly respond to the country’s pressing issues of rural electrification and rewriting renewable energy law,” Couture said of the results. “This kind of rapid response is just what many countries need.” The report concludes that with appropriate policy mechanisms, Nicaragua will be able to increase its total share of renewable energy in the country’s electricity mix.

“The Clean Energy Solutions Center provided helpful policy assistance within the IRENA Renewable Readiness Assessment process, helping Nicaragua identify key gaps in its renewable energy policy framework and the current national strategy for rural electrification,” Perez said.

## 7. Saint Kitts

### Creating a Waste-to-Energy Program

The Clean Energy Solutions Center assisted the St. Kitts Ministry of Housing, Public Works, Energy, and Public Utilities with creating a program to redevelop landfills with renewable waste-to-energy and/or solar technologies. St. Kitts is faced with the compelling challenges of having existing landfills that are either at or near capacity, and expensive electricity rates hovering just under 1 USD per kWh. Solutions

Center [experts](#) advised the St. Kitts Ministry of Housing, Public Works, Energy, and Public Utilities on creating a policy or program that is founded on due diligence and best practices. The Solutions Center experts also engaged in ongoing consultations with St. Kitts to design a program that includes a robust RFP process to attract investors and project developers that have proven expertise and knowledge in developing successful renewable energy projects on compromised lands.



### Impact of Assistance

The Clean Energy Solutions Center worked with St. Kitts Ministry of Housing, Public Works, Energy, and Public Utilities during a critical stage of pre-closure of a landfill and moved beyond to creating clean energy projects on property that is not viable for any other redevelopment use. Additionally, the renewable energy projects will allow this island nation to reduce demand for diesel fuels and move toward lower electricity prices. This program could be replicable on other islands around the globe.

## 8. Saint Vincent

### Encouraging a Buildings Efficiency Program

Solutions Center experts assisted the government of St. Vincent with developing a buildings efficiency program. St. Vincent is piloting and showcasing the program with the new Argyle International Airport. Solutions Center [experts](#) provided recommendations on proven technologies to include in their program to assure success of the pilot project, as well as recommendations on developing a public awareness campaign on energy efficiency.



### Impact of Assistance

St. Vincent's energy efficiency program is being launched and showcased at their new Argyle International Airport, a facility seen and utilized by thousands of people from around the world. Not only would the success of such a program reduce energy consumption and costs across the island, but also the fact that such a program is featured in a facility highly utilized by an international clientele will demonstrate success from which other country officials can learn.

## 9. Suriname

### Fostering Hydropower Program and Independent Power Production

The Clean Energy Solutions Center provided assistance to the government of Suriname with developing a micro-hydropower program and supporting policies. This program includes developing a policy that supports a form of independent power producer arrangements and feed-in tariffs.



#### Impact of Assistance

The primary goal of this policy is to provide clean energy access to remote villages across Suriname. With such a program in place, the government will be able to provide clean energy to approximately 1,750 people living in roughly 138 villages that are currently supplied diesel-generated electricity that is limited to 5-6 hours of power per day. Supplying the diesel to these villages costs the Suriname government about 6 million USD per year. A micro-hydro power program will provide clean, non-intermittent energy access to those in need of power, save the government several million dollars each year, and support job creation.

### Section 2: Additional Assistance Provided

- The Solutions Center provided **Antigua and Barbuda** with information on sustainable financing mechanisms for deploying renewable energy at schools.
- The Solutions Center provided **Belize** with an evaluation of a local biomass feedstock's potential for biofuels and biopower production.
- The Solutions Center reviewed and assessed **Bermuda's** National Electricity Sector Policy and their 2016 Integrated Resource Plan.
- The Solutions Center provided **Brazil's** Energias sin Fronteras with a cost-benefit analysis of off-grid energy systems versus power supply through grid extension.

- The Solutions Center provided assistance to the **British Virgin Islands** on evaluation of the technical and economic viability of renewable energy and water hybrid systems that would replace a fossil-fuel power system on the island of Anegada. The Solutions Center also reviewed the British Virgin Islands' feed-in tariff policy, provided recommendations on a regulation-defining process and requirements for consumer generated renewable electricity and analyzed the economics of solar photovoltaic power purchase agreements.
- The Solutions Center provided **Canada** information on clean energy financing mechanisms and incentives.
- During a two-day workshop held for members of the **Caribbean Electric Utility Services Corporation Renewable Energy Community**, the Solutions Center provided training and technical assistance to policymakers from several Caribbean countries on policies and regulations that support integration of renewables on islanded grids.
- The Solutions Center provided **Costa Rica** long-term energy policy and planning assistance.
- **Dominica** requested assistance with reviewing its geothermal resource bill, which is still in development.
- During a workshop held in Panama, the Solutions Center provided expertise to representatives from **Latin America and Caribbean countries** on renewable energy grid integration and managing transmission system services.
- The Solutions Center worked with **Peru** on a review and analysis of a diagnostic study to help identify technical and reliability issues and solutions associated with different renewable energy futures. The assistance focused on the costs, challenges and opportunities associated with higher penetration levels of variable renewable energy on the Peruvian grid.
- The Solutions Center worked with **St. Vincent and the Grenadines** to conduct financial modeling based on policy targets and finance instruments to address renewable energy project implementation and provide an economic analysis on the financial models.

- The Solutions Center provided **Trinidad and Tobago** assistance with developing the countries' sustainable energy plan and the Caribbean Community (CARICOM) member states' energy policy.