

ASSISTANCE FOCUS: LATIN AMERICA/CARIBBEAN



The Clean Energy Solutions Center, an initiative of the Clean Energy Ministerial, helps countries throughout the world create policies and programs that advance the deployment of clean energy technologies. Through the Solutions Center’s no-cost “Ask an Expert” service, a team of international experts has delivered assistance to countries in all regions of the world. High-impact examples from the Latin American/Caribbean region are featured here.

BUILDING CAPACITY FOR MUNICIPAL ENERGY PLANNING IN THE SÃO PAULO REGION, BRAZIL

The Clean Energy Solutions Center, in cooperation with the Low Emission Development Strategies Global Partnership, provided energy planning expertise to CIOESTE during a two-day workshop. CIOESTE—the Inter-municipal Public Consortium of the Western Metropolitan Region of São Paulo—consists of 8 of the 39 municipalities of metropolitan São Paulo.

IMPACT OF ASSISTANCE. As a result of the training workshop, representatives from CIOESTE's will be able to train other municipalities in the São Paulo regional area in the energy consumption and greenhouse gas emissions tracking. The workshop also supported clean energy policy harmonization efforts between municipalities, CIOESTE and the State Environmental Secretariat.



Sao Paulo, Brazil. Photo from iStock 638354802

MOBILIZING INVESTMENTS IN RENEWABLE ENERGY IN ANTIGUA AND BARBUDA

The Clean Energy Solutions Center teamed with the Organization of American States to assist to the island states of Antigua and Barbuda with development of a business model for managing the government's Sustainable Island Resource Framework (SIRF) Fund. To develop this model, the Solutions Center worked with Antigua and Barbuda to review and analyze international funding sources, such as the Green Climate Fund and Global Environment Facility. Through this exercise, fund requirements and accreditation needs were assessed and a SIRF Fund concept note was prepared. The concept note helped the government prepare a full business plan to operationalize the SIRF and improve local capacity to manage the fund.

IMPACT OF ASSISTANCE. The SIRF Fund is positioned to serve as the national implementing entity for the country's climate goals. The Fund links domestic and international capital sources to catalyze investments in climate change adaptation and mitigation initiatives. The SIRF Fund will serve as a mechanism to provide solid opportunities for Antigua and Barbuda to invest in renewable energy and help the islands meet their Paris Agreement commitments and Sustainable Energy Action Plan targets.

ACHIEVING ENERGY EFFICIENCY GOALS IN BELIZE

The Clean Energy Solutions Center partnered with the Organization of American States to assist Belize with development of a standards and labeling program for appliances. Working with Solutions Center experts from the Collaborative Labeling and Appliance Standards Program (CLASP), representatives from Belize prepared a workshop and subsequent plan to develop a program designed to support consumers in making informed decisions around appliance purchases and energy use.

IMPACT OF ASSISTANCE. The standards and labeling program is designed to facilitate purchase and use of energy efficient appliances, which will reduce energy consumption and lessen loads during peak demand periods and reduce energy costs of end users. Belize intends to align with current standards adopted by countries in the region and support development of common standards at the regional level to reduce trade barriers and accelerate program implementation.

SUPPORTING CLEAN ENERGY DEVELOPMENT THROUGH POWER PURCHASE AGREEMENTS IN TRINIDAD AND TOBAGO

The Clean Energy Solutions Center worked with the Organization of American States to support the government of Trinidad and Tobago with development of a strong legislative foundation for independent renewable power production and a framework for renewable power purchase agreements (PPAs). Establishing a PPA template with a strong legal framework offers the security and risk reduction that investors seek. This template opens an opportunity for Trinidad and Tobago to diversify its energy portfolio and expand the PPA framework that is currently specific to fossil fuel generation.

IMPACT OF ASSISTANCE. The development of the PPA template integrated with other key energy actions across the industrial, power generation, and transport sectors will support Trinidad and Tobago in reducing GHG emissions by 15% by 2030, as compared to a business as usual scenario.

ENHANCING PUBLIC ENERGY AWARENESS IN MONTSERRAT

Working with the International Renewable Energy Agency (IRENA), the Solutions Center assisted the government of Montserrat with development of a consumer awareness campaign. The campaign is designed to educate the citizens on the basics of renewable energy technologies and energy efficiency measures and their economic, social and environmental benefits.

IMPACT OF ASSISTANCE. Information on successful and tailored applications of renewable energy and energy efficiency can help secure the public buy-in needed for the government to successfully deploy clean energy projects. This public buy-in and end-user acceptance will enable Montserrat to reach their clean energy goals.



Mexico City, Mexico. Photo from iStock 508879694

ELECTRICITY MARKET REFORMS FOR MEXICO

The Clean Energy Solutions Center worked with the Inter-American Development Bank to provide support to Mexico's Ministry of Energy on structuring electricity markets in the context of the energy reform in Mexico. The Solutions Center shared good practices and lessons learned from other relevant electricity markets.

IMPACT OF ASSISTANCE. The support and recommendations provided by the Solutions Center offered help government officials understand critical success factors. This key information provides important knowledge that can help Mexico move forward with structuring their electricity markets to integrate more renewable energy sources.

GEOTHERMAL ENERGY FOR MEXICO

With the Inter-American Development Bank, the Clean Energy Solutions Center supported Mexico's Ministry of Energy in developing potential programs and markets for geothermal energy. Mexico is considering further development of geothermal power and they are exploring options for launching an effective approach to attract private investment. A Solutions Center geothermal expert worked with Ministry officials during a full day closed-door workshop. The expert provided a technical overview on successful geothermal applications, provided recommendations on next steps and offered information on best practices and lessons learned.

IMPACT OF ASSISTANCE. The information gleaned from this workshop provided Ministry of Energy representatives with the information they need to take appropriate steps to identify the most promising locations for geothermal energy, which will serve the country as an efficient and cost-effective clean energy technology.

SUPPORTING CLEAN ENERGY POLICY FOR THE CARIBBEAN COMMUNITY

The Caribbean Community (CARICOM) member states requested assistance for drafting a sustainable energy policy. 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 Ministers during the 41st Council for Trade and Economic Development (COTED) proceedings. During this meeting, energy ministers from CARICOM member states ratified the energy policy and adopted recommendations to set regional and national sustainable energy targets and explore net billing policies. The energy policy is now being considered for adoption by each member state.

IMPACT OF ASSISTANCE: Ratification of the CARICOM energy policy enables governments of each member state to have a cohesive and comprehensive energy policy in place to increase renewables and energy efficiency within its energy mix, allow for clean energy access to remote populations, and decrease the cost of energy to ratepayers.

ESTABLISHING GEOTHERMAL DEVELOPMENT AND POLICY IN THE CARIBBEAN

At the request of The United Nations Environment Programme (UNEP) Regional Office for Latin America and Caribbean, Clean Energy Solutions Center experts provided best-practice policy information to support geothermal deployment programs in the Caribbean islands.

The experts researched and drafted a report that provided policy recommendations focused on interconnection, training, capacity building and financing. The report also summarized the current status of geothermal activity in the Caribbean, finding that geothermal exploration and development are underway in seven Caribbean jurisdictions and, while each of the countries has a significant geothermal resource, only Guadeloupe has a plant in operation.

The report revealed that most Caribbean countries have installed electrical generation capacity above their peak loads. However, most of this capacity is fueled by oil, and there is a push in the region to retire oil-fired generation in favor of sustainable, lower-cost alternatives.

IMPACT OF ASSISTANCE: The information provided in the Solutions Center report will enable the UNEP regional office to evaluate the potential of geothermal as a cost-effective clean energy option for the Caribbean and implement effective policies that support geothermal development.

COMMENT FROM REQUESTOR

“On behalf of the Minister of Energy and Energy Affairs, I wish to sincerely thank you for affording us the opportunity to access your policy expert service for the just concluded 41st Special COTED (Energy) in Trinidad and Tobago.

The Solutions Center expert 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.

It was an extremely successful session with 13 of 15 Member state Ministerial attendees ratifying the CARICOM Energy Policy.”

Randy Ramadhar Singh
Advisor to the Minister on
Renewable Energy
Ministry of Energy and
Energy Affairs
Government of the Republic
of Trinidad and Tobago

COMMENT FROM REQUESTOR

“Many thanks to the Clean Energy Solutions Center for facilitating the development of the report. This is very useful information.”

Roberto Borjabad
United Nations Environment
Programme, Regional Office for
Latin America and the Caribbean

INFORMING ENERGY ACCESS AND CLEAN ENERGY PROJECT FINANCE PROGRAMS IN CHILE

The Clean Energy Solutions Center assisted the Chilean Renewable Energy Centre (CER) 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 publically 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 CER 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 CER 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.



The Solutions Center helped Chile develop programs and policies that could increase deployment of renewable energy technologies in the country. Shown here: Santiago, Chile.

Photo from iStock 8761334

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.

STRUCTURING ENERGY EFFICIENCY AND BIOFUELS POLICIES IN GUYANA

The Clean Energy Solutions Center experts provided best-practice information to the United Nations Development Programme (UNDP) about developing 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.

COMMENT FROM REQUESTOR

"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 Solutions Center has been pleasant, prompt, dedicated and diligent."

Henri Horn
United Nations Development Programme Guyana, Clean Energy and Climate

ENERGY STAR® and Leadership in Energy and Environmental Design (LEED) Certification Programs Webinar

“The Press Department of CONUEE had the opportunity to learn from the experiences of ENERGY STAR and LEED certification programs in regards 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 Solutions Center, through Kurt Shickman from GCCA, provided CONUEE with useful information on international codes and activities being deployed in regards 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 February 28, 2012.”

Adolfo Chavez
Director for Financing and Environment at CONUEE

ADVISING EFFICIENCY PROGRAMS IN MEXICO

The Clean Energy Solutions Center assisted the National Commission for Energy Efficiency (CONUEE) with developing a country-specific webinar training that provided information on standards and labeling and building certification and rating incentives 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 helpful in developing a work plan for Mexico going forward. The Global Cool Cities Alliance is collaborating with CONUEE on this program.



Assistance from the Solutions Center will help Mexico design and implement effective and replicable appliance labeling programs, building certification and rating programs, and cool surface policies. Shown here: Mexico City, Mexico. *Photo from iStock 12116136*



The Solutions Center's assistance will help Nicaragua deliver clean energy to remote populations and increase the country's use of renewable energy. Shown here: Managua, Nicaragua. *Photo from iStock 32803762*

STRENGTHENING NICARAGUA'S RENEWABLE ENERGY FRAMEWORK

The Ministry of Energy and Mines (MEM) in Nicaragua asked the Solutions Center to provide assistance in strengthening its renewable energy policy framework. This request contained two components: an analysis of solutions to accelerate renewable energy development in rural and remote regions of Nicaragua, and a policy gap analysis of Nicaragua's current renewable energy law. The Solutions Center and IRENA collaborated on this request and provided assistance at an on-site workshop.

IMPACT OF ASSISTANCE: The assistance provided through this request 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 provided technical assistance and recommendations for developing 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 gap analysis concludes that with appropriate policy mechanisms, Nicaragua will be able to increase its total share of renewable energy in the country's electricity mix.



St. Kitts. Photo from iStock 639069544

CREATING WASTE-TO-ENERGY PROGRAM IN ST. KITTS

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.

ENCOURAGING BUILDINGS EFFICIENCY PROGRAM IN ST. VINCENT

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.



The Solutions Center helped St. Vincent develop a buildings efficiency program that will reduce energy consumption and costs across the island. Shown here: City of Kingstown, St. Vincent. *Photo from iStock 19562966*

FINANCING ENERGY EFFICIENCY IN THE CARIBBEAN

The Solutions Center worked with Caribbean partners to enable financing for energy efficiency improvements. Solutions Center Experts worked to assess the policy and finance environment for energy efficiency around the region and identified regional needs for specific training and capacity building with market actors in the region. The Solutions Center supported 18 requests from 5 Caribbean countries and conducted a three-day workshop with over 40 people from 12 Caribbean nations.

IMPACT OF ASSISTANCE. This assistance brought together both government officials and market actors to identify the potential for energy efficiency and renewable energy projects in the region and build capacity within the sector. This regional cooperation enabled both governments and industry participants to begin to assessing policy needs to expand private financing of energy efficiency improvements and bolster a sustainable market.

FOSTERING HYDROPOWER PROGRAM AND INDEPENDENT POWER PRODUCTION IN SURINAME

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.



Solutions Center assistance will enable Suriname to provide clean-energy access to those in need of power, save the government money and support job creation. Shown here: City of Paramaribo, Suriname. *Photo from iStock 36942934*

Page 1 photo: The Solutions Center's assistance with drafting a sustainable energy policy for the Caribbean Community will help increase renewable energy and energy efficiency within member states. Shown here: Caribbean member state, Republic of Trinidad. *Photo from iStock 14393181*

To learn more about the Solutions Center and how it can assist you in achieving your policy goals, please visit cleanenergysolutions.org.