REPORT FROM THE
TASK FORCE ON
U.S. CARIBBEAN AND
CENTRAL AMERICAN
ENERGY SECURITY

Presented to Leaders by the
Co-Chairs of the Task Force at the
U.S. Caribbean Central American
Energy Summit

May 4, 2016
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ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>ASG</td>
<td>Assistant Secretary General</td>
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<tr>
<td>CARCEP</td>
<td>Caribbean Clean Energy Program</td>
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<td>CARICOM</td>
<td>Caribbean Community</td>
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<td>CCCCC</td>
<td>Caribbean Community Climate Change Centre</td>
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<td>CCREEEE</td>
<td>Caribbean Center for Renewable Energy and Energy Efficiency</td>
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<td>CDMER</td>
<td>Council of Directors of the Central American Regional Electricity Market (Consejo Director del Mercado Electrico Regional)</td>
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<td>CEFF-CCA</td>
<td>Clean Energy Finance Facility for the Caribbean and Central America</td>
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<td>CEP</td>
<td>Caribbean Energy Policy</td>
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<td>CESI</td>
<td>Caribbean Energy Security Initiative</td>
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<td>CRIE</td>
<td>Regional Commission for Electrical Interconnection (Comisión Regional de Interconexión Eléctrica)</td>
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<td>C-SERMS</td>
<td>Caribbean Sustainable Energy Roadmap and Strategy</td>
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<td>CSME</td>
<td>CARICOM Single Market and Economy</td>
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<td>DOE</td>
<td>U.S. Department of Energy</td>
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<td>ECPA</td>
<td>Energy and Climate Partnership for the Americas</td>
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<td>EOR</td>
<td>Regional System Operator (Ente Operador Regional)</td>
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<tr>
<td>EPR</td>
<td>Proprietary Company for the SIEPAC line (Empresa Proprietaria de la Red, the company that owns the SIEPAC transmission line)</td>
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<td>EU</td>
<td>European Union</td>
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<td>GHG</td>
<td>Greenhouse Gas</td>
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<td>IDB</td>
<td>Inter-American Development Bank</td>
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<td>IFI</td>
<td>International Finance Institution</td>
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<td>MER</td>
<td>Central American Regional Electricity Market (Mercado Electrico Regional)</td>
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<td>MW</td>
<td>Megawatts</td>
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<tr>
<td>NALS</td>
<td>North American Leaders’ Summit</td>
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<td>OAS</td>
<td>Organization of American States</td>
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<td>OPIC</td>
<td>Overseas Private Investment Corporation</td>
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<td>PPA</td>
<td>Power Purchase Agreement</td>
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<td>PPP</td>
<td>Public-Private Partnership</td>
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<tr>
<td>SICA</td>
<td>Central American Integration System (El Sistema de Integración Centroamericana)</td>
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<td>SIDS</td>
<td>Small Island Developing States</td>
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<tr>
<td>SIEPAC</td>
<td>Central American Electrical Interconnection System (Sistema de Interconexión Electrica de los Países de America Central)</td>
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<td>U.S.-C Task Force</td>
<td>U.S.-Caribbean Task Force</td>
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<td>U.S.-CA Task Force</td>
<td>U.S.-Central American Task Force</td>
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<td>U.S.-CCA Task Force</td>
<td>U.S.-Caribbean and Central American Task Force</td>
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<td>UNIDO</td>
<td>United Nations Industrial Development Organisation</td>
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<td>USAID</td>
<td>U.S. Agency for International Development</td>
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<td>USTDA</td>
<td>U.S. Trade and Development Agency</td>
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<td>WBG</td>
<td>World Bank Group</td>
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OTHER NOTES

In order to ensure timely and inclusive incorporation of late-stage stakeholder feedback into the development of this report, this document employed both official and unofficial translation services in its creation.
EXECUTIVE SUMMARY

To help achieve a more secure, affordable, and clean energy future, President Barack Obama announced the Task Force for Caribbean and Central American Energy Security (U.S.-CCA Task Force) when he met with Caribbean and Central American leaders in Jamaica and Panama, respectively, in April 2015. In consultation with both regions, the U.S.-CCA Task Force was created as a means to diminish the vulnerability of small electricity markets in Central America and the Caribbean to fluctuations in global energy markets, and contribute to an aggregate reduction in tariffs for consumers, elevating the competitiveness and economic prosperity in both regions. The U.S.-CCA Task Force also provided a forum for the joint and collaborative identification of challenges and opportunities for energy diversification, clean energy investment, regional energy cooperation and integration. This effort occurred through a series of meetings among officials from the governments of the United States, Caribbean, and Central America, and regional institutions (“the Participants”), as well as various other partners supporting energy sector development in these regions. The U.S.-CCA Task Force was co-chaired by the U.S. Department of State Special Envoy and Coordinator for International Energy Affairs; the Assistant Secretary General for Trade and Economic Integration of the CARICOM Secretariat; and the Executive Secretary of the Council of Directors of the Central American Regional Electricity Market (CDMER) and its President Pro Tempore. The Task Force co-chairs took leadership over the consolidation of input from their members and other regional institutions to collaborate on the text of this report.

Within the Caribbean, the Task Force (U.S.-C Task Force) identified steps to continue progress under the Caribbean Energy Security Initiative (CESI), focusing on actions that support and improve the governance and investment climate for clean energy, including: (i) enhancing regional coordination on energy matters through the Caribbean Sustainable Energy Roadmap and Strategy (CSERMS) framework and the Caribbean Center for Renewable Energy and Energy Efficiency (CCREEE); (ii) acceleration of regional markets for energy efficiency through innovative financing approaches; and (iii) increasing clean energy investment. These actions would be supported through appropriate mechanisms including, but not limited to, the Overseas Private Investment Corporation (OPIC) Caribbean and Central America program, the Clean Energy Financing Facility (CEFF-CCA), and others. Within the Caribbean context, emphasis was placed on the need for support for the development of comprehensive, planning-based and research-driven approaches to the energy transition, including the implementation of pilot and demonstration projects, so that individual clean energy projects are part of a fully integrated, climate-resilient energy transition plan.

Within Central America, the focal region of the 2012 Summit of the Americas initiative “Connecting the Americas 2022,” the Task Force (U.S.-CA Task Force) recommended actionable steps to strengthen, optimize, and accelerate the Central American Electricity Interconnection System, known by its Spanish acronym SIEPAC. This recommendation includes actions to make the region’s electricity market (MER) more competitive by resolving short-term market constraints, as well as the efforts of the three MER institutions to expand and strengthen the MER.

The Participants agreed that, despite the dissimilarities, there were mutual challenges and opportunities within both regions. The Participants also agreed that strategic and transparent energy governance, together with regional thinking, are necessary tools for enhancing national and regional investment opportunities. The Participants affirmed that the cooperation on energy should strengthen the ability of the respective governments to enable the private sector to provide reliable and sustainable energy with improved predictability in price and supply for users. The availability of affordable energy is viewed as a prerequisite for permanent transformational shift in the energy paradigm for both regions.

This report details recommendations and timelines for future cooperation among all U.S.-CCA Task Force participants.
INTRODUCTION

The Caribbean and Central America have a stunning diversity of geography, population, language, culture, politics, and economies; much of this is due to the diverse history of the countries. The region consists of a mix of small island states and mainland territories within the Caribbean Sea and its surrounding coasts, and consequently, a number of these territories are sensitive to the impacts of climate change, including sea level rise, extreme meteorological events (hurricanes, droughts and flooding), and biodiversity loss. Many of them are also reliant on fossil fuels for power and transport sectors, making these countries more susceptible to oil market volatility.

While there are some similarities in the energy challenges facing the countries of the Caribbean and Central America, there is also great diversity in the unique energy sector opportunities, ranging from natural gas production and use and wind and solar applications, to the significant interest in and additional opportunities for geothermal and hydropower development.

The U.S.–CCA Task Force Participants of the Caribbean, Central America, and the United States—along with their respective institutions—recognize that energy security, access to energy, human and economic development, and environmental and climate goals benefit from and contribute to sustainable, modern, clean and diversified energy sectors. Participants in the region are pursuing the vision of clean, reliable, and affordable energy to support the competitiveness of businesses and industry and support prosperity for citizens.

And both regions have made significant steps forward: the Caribbean and Central America have, over the past two to three decades, seen improvements in issues such as grid penetration, power reliability, reduced blackouts, and reduced electricity prices, largely through the development and refinement of modern energy policies and regulations. Traditionally, however, energy security has typically been an effort undertaken at the national level. By approaching the topic regionally, additional opportunities exist to strengthen regional solutions to bring greater benefits to all countries.

LEVERAGING INVESTMENT

The CARICOM Secretariat estimates that the Caribbean will require US$20 billion in energy investment to achieve the 2027 C-SERMS targets, and the World Bank estimates that Central America will need to double installed capacity within a decade, requiring US$70 billion by 2022.

A critical tool to catalyze these efforts is public financing resources. But while it is well understood that both regions require access to these public finance resources, the participants also recognized that public finance alone may not be sufficient to meet their investment requirements, even when supported by the multilateral development banks and other IFIs, given that governments must balance multilateral support among many national priorities such as health, education, and public security. Many countries, especially among the SIDS, also face limited access to capital markets; small energy markets; and unique regulatory and policy frameworks, which can create barriers to the investments necessary for transforming their energy systems. A number of Task Force participants noted that these challenges can lead to a “vicious cycle” in which there is a continuation of high energy costs that inhibits growth.

It is also important to respect that different electricity sector models exist in the Caribbean and Central America: some sectors have exclusively public companies, others allow for private and public investment, and yet others host open markets with more opportunities for private investment. The private sector can play a critical role in providing much of the capital needed, with governments creating the conditions to attract that capital. Acknowledging the specific contextual differences of each country’s sector, it was concluded that an investment environment that is clear, stable, competitive, and fair, while protecting social and environmental interests, is a precursor for governments to deliver an energy future for citizens.

The goal of creating a framework for catalyzing private investment and renewable energy development is achievable, and there are already cases of success within the Western Hemisphere. The U.S. Virgin Islands, through strategic planning for its energy sector, as of 2015 had reduced its near total dependency on fossil fuel in 2009 by approximately 20 percent, and is on track to meet its goal of reducing fossil fuel dependency by 60 percent in 2025. Costa Rica produced 99 percent of its electricity from renewable sources in 2015, with only one percent of generation derived from fossil fuels, and it is developing new geothermal and wind resources that will achieve 13 percent and 10 percent of its energy mix, respectively. El Salvador produces 25 percent of its annual generation from geothermal energy. Beyond the region, Uruguay’s supportive policy framework is driving the country’s rapid power sector transformation to a renewable market leader; according to the World Wind Energy Association, Uruguay was the fastest growing wind market in 2014. Prior to recent oil price declines, Colombia implemented a new framework for private sector investment in its hydrocarbon and mining sectors in the early 2000’s and saw investment in the oil and gas sector rise from US$ 400 million per year in 2002 to US$ 4 billion in 2010.
THE POTENTIAL
Shared energy security and climate objectives are core priorities for the Caribbean, Central America, and the United States and reflect our leaders’ joint commitments at the April 2009 Summit of the Americas, the Energy and Climate Partnership of the Americas (ECPA), “Connecting the Americas 2022”, Caribbean Energy Security Initiative (CESI), and numerous bilateral partnerships across the hemisphere. These core priorities also reinforce the commitments of the Obama Administration to support Caribbean and Central American efforts to secure a more sustainable and cleaner energy future that can drive increased prosperity for all. The United States continues to offer its experience and close engagement with international stakeholders to develop transformative partnerships with those countries that are forging their own path to an energy secure future.

The task of implementing effective rules and regulations with a long-term perspective is a complex one, often requiring hard political choices at the national and regional levels. Together, the governments of the Caribbean, Central America and United States have the power to set the conditions necessary for attracting investments. There is a clear and present window of opportunity for the Caribbean and Central America to move beyond the status quo and leverage the investments—public and private—that are necessary for the region to fulfill the promise of an energy system that takes full advantage of the natural resources within the region.

THE U.S.-CCA TASK FORCE ENGAGEMENTS
In meetings with CARICOM and Heads of State of the Central American Integration System (SICA) in April 2015, President Obama proposed the United States partner with Caribbean and Central American countries in an energy security task force to evaluate the scope for regional energy cooperation and identify concrete steps to advance energy sector reform and integration within the respective countries. The Task Force (U.S.-CCA) was established as a two-part dialogue, with one set of meetings focused on the Caribbean (U.S.-C Task Force) and another on Central America (U.S.-CA Task Force), acknowledging that each group of countries, though having similar interests to improve energy security, faced different challenges and are endowed with diverse opportunities for transforming their energy sectors. The U.S.-C Task Force was co-chaired by U.S. Department of State Special Envoy for International Energy Affairs, Amos Hochstein (“Special Envoy Hochstein”) and CARICOM Assistant SecretaryGeneral Joseph Cox (“ASG Cox”). Special Envoy Hochstein also cochaired the U.S.-CA Task Force with CDMER Presidents Pro Tempore, Nicaraguan Minister-Advisor to the Presidency for renewable energy affairs Emilio Rappaccioli (through December 2015) and Honduran Vice Minister for Energy Elvis Rodas. It is also important to note that on December 3, 2015, the Ministers’ Council of the SICA agreed to recommend the CDMER’s involvement in the Task Force on energy security, considering and recognizing CDMER’s responsibilities relating to the Central American electricity market, established in the Framework Treaty.

The Task Force meetings highlighted a variety of diverse and important viewpoints, and while that diversity demonstrated that there is no “single path” to a more secure energy future, there were general themes that were agreed to by a majority of participants. This report is a collaborative effort that details the outcome of these Task Force discussions and establishes shared conclusions, recommendations for action each region, and a roadmap with a timeline for next steps. It seeks to inform leaders in all three regions of the current efforts underway, recent progress, and to inform the next chapter of U.S.-Caribbean-Central American energy engagement.
SECTION 1: U.S.-CARIBBEAN ENGAGEMENT ON ENERGY

Caribbean countries have energy supply problems that differ appreciably from those of major land masses. There is, most usually, an absence of local fossil fuel reserves, such as oil, natural gas and coal, as well as limited infrastructure for delivering energy. Also, the power generation systems are, in instances, too small to accommodate some technologies “in a cost-effective way.” There is also an absence of energy delivery by rail, pipeline or regional grid connection, which limits the degree of flexibility in island energy systems, and the majority of countries within the Caribbean Community (CARICOM) rely primarily on seaborne petroleum imports 1, which are becoming more expensive and insecure in pricing and supply.

If greater flexibility and increasing levels of energy security are to be sustainably integrated into island energy systems, there is need for a shift in which there is greater reliance on indigenous energy sources. This will not only allow the region to play its part in global climate mitigation efforts — recognizing that collectively, CARICOM contribute less than 0.2 percent of global greenhouse gas emissions — but also to facilitate an ability of countries to implement some of the measures that are necessary for climate adaptation. The complexity of climate change, and the projected impacts thereof, remains the single biggest threat to the sustainable development of CARICOM countries and the potential costs of adaptation, and, if global greenhouse gas (GHG) emissions continue unchecked, will amount to billions of dollars annually. The volume of GDP and foreign exchange resources being spent by Caribbean countries to pay for energy imports over the last decade, when oil prices were mostly high, could have otherwise been directed to alleviating poverty, adapting to climate change and sea level rise, and other critical interventions that are necessary for sustainable development and resilience building. Whether viewed from a social, environmental, or economic perspective, the energy sector presents a fundamental opportunity for driving sustainable development within the Caribbean.

As a result, a majority of Caribbean countries face crucial choices within the next few years: a large wave of energy infrastructure investment is required to replace aging, inefficient power plants with more modern, efficient alternative energy options while increasing the available generation capacity. If done judiciously, this will give the countries a chance to build robust, flexible energy systems that would serve their long-term sustainable development needs. This period provides a critical window for decisions that avoid “locking in technologies” that expose the countries to future market volatilities.

It has also been noted previously that the transformation of energy markets in CARICOM requires every Member State to mobilize large amounts of capital; for the power systems alone, an estimated total of US$ 20 billion is required over the next five to ten years.

The private sector, which is being targeted by the majority of development partners (development banks, multilateral agencies and bilateral donors) active within the region, sees political and regulatory risk as the major factor preventing the mobilization of the capital required. There are also heightened market risks due to the lack of economies of scale, limited experience with renewables, and the macroeconomic circumstances of Caribbean nations, among other factors. A reality too is the relatively low international credit ratings of many Caribbean countries, which reduce investor appetite for project financing and result in excessive collateral requirement and high interest terms for loans, when available.

However, the challenges are matched by tremendous opportunities. Political leadership in providing longer-term vision is essential to building a new energy future. The Caribbean Community embraces this approach, as demonstrated in its establishment in 2013 of a visionary regional energy policy, after a negotiation period of ten years, which articulates the member countries’ collective goal:

“Fundamental transformation of the energy sectors of the Member States of the Community through the provision of secure and sustainable supplies of energy in a manner which minimizes energy waste in all sectors, to ensure that all CARICOM citizens have access to modern, clean and reliable energy supplies at affordable and stable prices, and to facilitate the growth of internationally competitive Regional industries towards achieving sustainable development of the Community.”

—CARICOM Energy Policy [2013]

This Policy calls for a transformation of the energy sector in the region and identifies a number of common strategic objectives. Key among these are energy efficiency; secure energy supplies; and trade in energy, especially as this relates to “the impact on relative competitiveness in the CARICOM Single Market and Economy (CSME) and purchasing and transportation arrangements.” Alongside the CARICOM Energy Policy, Member States also adopted the Caribbean Sustainable Roadmap and Strategy (CSERMS). The C-SERMS

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1 Except for Trinidad and Tobago, the only net exporter of oil and natural gas, all other Caribbean countries are net oil importers.
has recommended regional sustainable energy targets for renewable power capacity and energy efficiency in the short (2017), medium (2022), and long (2027) terms. For example, increasing renewable power capacity by 20 percent, 28 percent and 47 percent by 2017, 2022, and 2027, respectively; and a proposal for a 33 percent reduction in energy intensity by 2027. There is broad consensus that the regional energy system, despite the progress already made, has to undergo significant additional changes to urgently meet the demands for modern, secure, reliable, efficient, cost-effective energy services, in general, and the CSERMS targets, in particular, which require integration into the national scenarios.

The United States has already begun working with some Caribbean countries toward a diversified and sustainable energy sector, and continues to support the efforts through capacity building, information sharing and knowledge exchange that identifies best practices, targets technological innovations, and leverages available finance tools. In particular, the United States and Caribbean governments intend to concentrate on opportunities to establish sound governance, and leverage public funds to attract private sector investments within the Caribbean sustainable energy sector.

The United States is one of many partners that supports this process: many other partners, including the International Finance Institutions (IFIs) such as the Inter-American Development Bank (IDB) and World Bank, and international multilateral and bilateral partners such as the Organization of American States (OAS), European Union (EU) and the governments of Canada, Austria, the United Kingdom, Japan, China, are also working to advance clean energy transformation in the Caribbean. There is cognizance that the coordination and harmonization of the multiplicity of efforts is critical for optimization of the diverse tools and funds that are being contributed to support the region. The United States acknowledges and supports the coordinating role of the CARICOM Secretariat and other regional institutions and frameworks, recognizing that this coordination has the potential to multiply the effectiveness of the diverse contributions from the many development partners through a reduction in duplicative efforts and the specialization of donors in areas where they hold experience and comparative advantages.

The Caribbean has also noted that progress requires the simultaneous continued advancement of a regulatory landscape for clean energy within the respective countries and the reformation of global rules for financial assistance, including those related to graduation and structural adjustment. The stable, long-term energy policy and regulatory framework, which are necessary for supporting open, competitive Power Purchase Agreements (PPAs) and effective Public Private Partnerships (PPPs), works best in environments where governments possess the levers to balance an energy architecture that provides affordable, reliable and clean energy.

Many Caribbean countries struggle to mobilize financing for ambitious investments in the energy sector due to fiscal constraints, weaknesses in their policy and regulatory regimes, the small size of their economies, and constrained levels of multilateral financing. Additionally, small island economies are extremely vulnerable to the impacts of climate change, natural disasters, and global oil prices. Such countries may, however, also have additional options for financing renewable energy investments, including the recently established Green Climate Fund.

The current climate in Washington, D.C. is indicative of a paradigm shift, wherein institutions are increasingly accepting energy sector reform as the foundation for growth and competitiveness strategies, which are necessary for debt reduction. In particular, countries who have sought IMF programs and are concerned with the preservation of fiscal space and debt sustainability, under specific conditions, have been able to enter into loan agreements (or provide sovereign guarantees) to support projects that are bankable and self-financing in the long run given the potential growth enhancement impact of energy sector investments.

EXISTING AREAS OF COOPERATION
The United States and the Caribbean have a history of technical cooperation in energy. This includes:

- U.S. technical assistance in the governance (regulation, procurement, management, standardization) and implementation of cleaner energy, drawing upon solar, wind, geothermal, bioenergy, and natural gas supplies; and employing microgrids and innovative approaches to energy efficiency.
- Capacity-building and workforce development.
- Pre-feasibility analysis of regional integration opportunities, including natural gas markets and regional electrical interconnections.
- Enhanced access to clean energy finance.
- Support for innovative approaches to low-carbon economic growth and the safe and responsible development of offshore hydrocarbons, including technical assistance and multilateral spill preparedness.
- Nationally-oriented programs focusing on specific in-country opportunities, e.g. in Haiti and Jamaica.
Additionally, the U.S. government has advanced cooperation with the Caribbean through broader, regional energy diplomacy and programmatic initiatives such as:

- **The Caribbean Energy Security Initiative (CESI) and White House Engagement:** Vice President Biden launched the CESI on June 19 of 2014, which seeks to support the Caribbean in achieving resilient and sustainable energy sectors through enhanced governance, improved access to energy finance, and increased donor coordination. Vice President Biden convened Caribbean Heads of Government in Washington, D.C. on January 26, 2015—the Caribbean Energy Security Summit—to advance cooperation under the CESI. An outcome of the Summit was a Joint Statement, endorsed by the parties (Annex 2). Later, in Jamaica during the April 2015 Summit of the Americas, President Obama met with Caribbean leaders and announced the creation of the Task Force for Caribbean and Central American Energy Security, as well as the creation of the CEFF-CCA. As an outcome of these engagements, the U.S. Department of State, through the U.S. Agency for International Development (USAID), is financially supporting CARICOM’s efforts to deploy the C-SERMS framework to coordinate and maximize the impact of energy-related assistance.

- There are also a number of other U.S. interagency activities that support the CESI through either regional or national support, including (but not limited to): Department of State support for the Nevis Island Administration and Nevis Electric Company’s launching of a competitive tender for geothermal resources, as well as completed engineering analyses on the island’s distribution system and relating to the potential electric interconnection with St. Kitts; creation of an OPIC-led deal team designated to pursue and underwrite projects and to provide debt financing and insurance to advance development of the Caribbean renewable energy sector; USAID’s work to accelerate clean energy development in the region through its Caribbean Clean Energy Program (CARCEP), a 5-year, $15 million project with special focus on Jamaica and the Eastern Caribbean; the Department of Energy’s Clean Energy Technology Symposium; the Caribbean Hotel Energy Efficiency and Renewables Initiative; the establishment of a DOE-IDB Natural Gas working Group, and the publication of the *Energy Transition: Islands Playbook*, an action-oriented guide to planning energy transition in island contexts.

- **Energy and Climate Partnership for the Americas (ECPA):** In support of sustainable and clean energy development, President Obama announced the ECPA initiative at the 2009 Summit of Americas. The U.S. Departments of Energy and State hosted the first ECPA Ministerial in 2010 in Washington, D.C., with support from the IDB and the OAS. The United States and Mexico convened the second Ministerial meeting in Merida, Mexico in May 2015, where the ECPA participants agreed to establish a voluntary Steering Committee to encourage greater regional ownership of the initiative, co-led by Chile and Mexico. Chile also agreed to host the next ECPA Ministerial meeting, tentatively scheduled for fall 2017. Steering Committee members include...
Mexico, Jamaica, the Dominican Republic, Trinidad and Tobago, and the United States. The Committee will develop and deliver an Action Plan for the 2017 Ministerial. ECPA seeks to foster partnerships across the Americas to achieve low carbon economic growth and development and provides a flexible mechanism through which governments in the Western Hemisphere, on a voluntary basis, may lead multi-country or bilateral initiatives on such topics as energy efficiency, renewable energy, cleaner and more efficient use of fossil fuel, energy infrastructure, energy poverty, sustainable forests and land use and adaptation. The OAS serves as the de facto ECPA Secretariat and is funded through the U.S. Permanent Mission to the OAS. The United States also has programs and initiatives focused on the Caribbean, that are intended to support and complement the regional policy and strategy for sustainable energy, through the planning and implementation architecture developed by the CARICOM Secretariat with support from development partners. These programs and initiatives include:

- **Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS) Platform:** Designed to function as a “mix” of virtual and physical interactions, the C-SERMS Platform is a mechanism through which national governments and regional leadership will be able to track and meet the stated goals on sustainable energy while simultaneously securing the input of various actors, involved in (and critical towards supporting) the process of sustainable energy transformation within CARICOM. A key aspect of the Platform is that it provides a mechanism for development partners, including donors and institutions, to plug into the existing regional frameworks for cooperation on clean energy. Critically, by linking strategy to operations, the Platform also requires that “actors work in concert” to deliver performance through a results-oriented approach that tracks and reports on the regional impact of their actions and contributions. Thematic Working Groups, which are designed to address the major barriers to sustainable development within the Region, form the backbone of the Platform.

- This mechanism of the Platform can: (i) enable actors, operating within the sustainable energy sector within CARICOM, to optimize the addition of value; and (ii) enhance opportunities for the region to achieve its sustainable energy goals most efficiently and cost effectively. The Platform operates on the principle of regional ownership, supported by respect and mutual accountability among the parties.

- **Caribbean Center for Renewable Energy and Energy Efficiency (CCREEE):** The CCREEE is designed to address the implementation deficit in the CARICOM sustainable energy sector by supporting and coordinating the execution of renewable energy and energy efficiency projects and activities within CARICOM. It has the principal objective of assisting Member States in their navigation of what can be described as a competitive, yet lucrative RE and EE investment climate and support the modern energy landscape and sustainable development within the region. Primarily, the Centre represents an innovative fusion of regional and international efforts and capabilities. Its design allows for the leveraging of a network of intra and extra regional partnerships, thereby serving as a “hub” for knowledge and technical expertise on matters related to sustainable energy project implementation.

- The process for the establishment of the CCREEE is being driven by Member States and coordinated by the CARICOM Secretariat with the support of the Sustainable Islands’ Energy and Climate Initiative (SIDS DOCK) and the United Nations Industrial Development Organisation (UNIDO).

- **Examples of Additional Cooperation from other Partners:** Although this report is focused on U.S.-Caribbean (and U.S.-Central American) engagement, it is valuable to highlight that other donors have also provided significant additional support, in addition to what is referenced above. For example, the IDB is providing technical and financial support to the Caribbean in the form of pre-feasibility and feasibility studies, strengthening of regulatory frameworks, institutional strengthening and capacity building, investment projects, and other transformative initiatives. In 2014 alone, the IDB approved more than $200 million in energy operations for the Caribbean region (including Dominican Republic and Haiti). Since 2010, the current projects in execution and in preparation add up to total of US$ 275 million in Investment Loans, approximately US$380 million in Policy-Based Loans (an IDB instrument to promote policy reforms), and more than US$15 million in non-reimbursable Technical Assistance grants (studies) and Knowledge Products, as well as approximately US$15 million in investment grants to develop pilot programs. The World Bank Group, including both the World Bank and the International Finance Corporation (IFC), also has significant activities to support national and regional efforts to increase access and affordability to modern energy services, including energy project preparation and investment,
policy and regulatory reforms, technical assistance, and capacity building, ranging from work relating to rural energy access in Haiti, geothermal and solar PV market development in the OECS, modernization of electricity networks in the Dominican Republic, and energy sector climate resilience in Belize. Working with both public and private sector organizations, the WBG currently has an active portfolio of over $500 million including investments and grants.

U.S.-C TASK FORCE MEETINGS

The following Caribbean Task Force meetings took place:

- **September 2, 2015**: CARICOM Secretary-General, H.E. Irwin LaRocque and U.S. State Department Deputy Assistant Secretary Robin Dunnigan met to formally initiate the U.S.-C Task Force. This meeting helped define goals and objectives of the first plenary U.S.-C Task Force meeting, held on October 19, 2015, identifying areas of common priorities and the appropriate format for the event.

- **October 19, 2015**: CARICOM Assistant Secretary General Joseph Cox, Caribbean Governments (represented through a mix of Energy Ministers, Permanent Secretaries and Energy Directors), and regional institutions (through senior representatives of Caribbean Community Climate Change Centre, Caribbean Development Bank, and University of the West Indies) met with the U.S. Special Envoy for International Energy Affairs, Amos Hochstein, and U.S. government agencies, inter alia: the Department of Energy (DOE), the Overseas Private Investment Corporation (OPIC), the U.S. Agency for International Development (USAID), and the U.S. Trade and Development Agency (USTDA). International finance institutions, including the World Bank and IDB, also participated. The meeting participants discussed CARICOM’s regional governance institutions, as well as Energy Ministers’ (or equivalents’) perspectives on the path forward for lasting energy reform.

- **Core group**: To sustain engagement, CARICOM and the United States formed a “core” working group to advance shared interests and develop the language for the U.S.-CCA Task Force Report. The CARICOM Secretariat and the U.S. State Department served as the interlocutors for the Core Group and met regularly to exchange information and ideas related to, inter alia, the proposed outcomes of the U.S.-C Task Force.

U.S.-C TASK FORCE CONCLUSIONS

On the basis of the October 19, 2015 meeting in Miami, the Caribbean Task Force established the following conclusions:

(i) The leadership of the Caribbean, in particular the Caribbean Community (CARICOM), is cognizant of the need to transform the energy situation of the region and has begun to address the planning and innovation needs of the entire energy system.

(ii) The CARICOM Energy Policy (CEP) and the Caribbean Sustainable Roadmap and Strategy (CSERMS), which were approved by CARICOM Energy Ministers in April 2013, provide orientation for the transformation; the Regional strategy on energy has now also been anchored within the Five Year Strategic Plan of the Caribbean Community [20152019], which was approved by CARICOM Heads of Government Conference in June 2014 and identified energy as a crosscutting theme, focusing especially on its role in the building of Economic and Environmental Resilience within the Community.

(iii) The Government of the United States, through commitments made by President Barack Obama and VicePresident Joe Biden, plans to support the advancement of clean energy development within the Caribbean. In particular, President Obama and the CARICOM Heads of Governments, on April 9, 2015, committed to joint action towards the pursuit of diversified, sustainable, clean, affordable, and resilient energy sectors within the region by deploying cost-effective alternate, including renewable, energy technologies and energy efficiency applications.

(iv) The United States Government supports the economic and human development of the Caribbean region and shares the vision that a robust
energy sector, which is underpinned by the cost-effective utilization of national energy sources that deliver improved predictability in price and supply for users, is an important precursor towards the goal of sustainable development within the region.

(v) The United States Government, through the Caribbean Energy Security Initiative, has been working and will continue to work, with those Caribbean nations that are embarking on the path toward cleaner, more resilient energy security.

(vi) Though all Caribbean nations have unique challenges, opportunities, and priorities, regional cooperation on energy can leverage the sharing and exchange of information and experiences that are critical for success at the national level. Moreover, the principle of the "collective regional approach" is contained within the CARICOM Energy Policy (CEP) and encourages national action, where relevant and feasible, whilst simultaneously facilitating the exploitation of synergies, where available, on those actions that will provide comparative advantage vis-à-vis the "country alone" approach.

(vii) An important element to unlock CEP Priorities is the establishment of investment environments that enable access to the "affordable capital" necessary to enable meaningful and transformational reform. Communication with the private sector, as well as civil society groups, is an important element to identify roadblocks to investment and to develop feasible solutions. The traditional investors—whose capital the majority of development partners active within the region seek to mobilize—see political and regulatory risk as the major factor preventing the mobilization of the capital required. There are also heightened market risks due to the region's small economies of scale, relative lack of experience with renewables, and challenging macroeconomic circumstances, among other factors.

(viii) In general, the United States will support the Caribbean in the identification and engagement of the global markets from which public and private funds may be sourced to support the advancement of clean energy deployment within the region. More specifically, the United States and the Caribbean will work together to engage the U.S. and Caribbean private sectors and to establish a productive dialogue.

(ix) There has been significant progress in the development of the CSERMS framework, which will be the basis for action for sustainable energy development within the next decade. The CSERMS framework will be executed in partnership with the Member States through a platform that aims to provide a more coordinated and strategic approach to sustainable energy design and implementation within the region. The United States-Caribbean cooperation will be guided by the strategies and priorities provided by the C-SERMS and consequently, the United States will continue to focus U.S. interagency cooperation on energy with CARICOM through the C-SERMS Platform.

(x) There has also been significant progress in the establishment of the C-SERMS Platform, as well as the establishment of the CCREEE, which provides a mechanism through which stakeholders may engage with aspects of regional sustainable energy coordination. The C-SERMS Platform will serve as the formal channel through which key stakeholders within the regional energy sector can formally engage. It is intended to bring together actors at the national and regional levels—governments, institutions, industry, investors (including the utilities), development partners and other stakeholder groups—to facilitate information and knowledge exchange and integrated planning so as to optimize the respective contributions toward the building of a regional sustainable energy system.

(xi) All parties recognize the United States as one of many critical stakeholders for promoting sustainable energy development within the Caribbean. There is cognizance also that there are a multitude of international donors and development partners operating within the Caribbean and that the C-SERMS Platform provides an opportunity to enhance coordination among the parties, which is critical to maximizing the impact of the respective efforts, ensuring the Caribbean maintains ownership and leadership over the vision for the cooperation among international donors and development partners operating within the region.

(xii) Finally, the United States and the Caribbean will identify and work with other key partners to support sustainable and transparent energy development through an integrated regional pipeline of clean energy (renewable energy and energy efficiency) projects within the Caribbean. These efforts will be underpinned by a project preparation facility, targeting early-stage development, and investment support, that targets commercial deployment.
NEXT STEPS

The U.S.-C Task Force recommends the following timeline for next steps:

(i) **Establish priority list of clean energy projects:** The U.S. Government and CARICOM, through the State Department and the CARICOM Secretariat, will hold at least two meetings via teleconference, to work towards, *inter alia*, the establishment of an integrated pipeline of clean energy projects that reflects the priority areas within the Caribbean energy sector, and seeks efficient implementation. The established Point of Contact to establish these Quarterly calls will be the CARICOM Energy Unit, the U.S. Department of State Energy Resources Bureau, and the U.S. Department of Energy.

(ii) **CEFF-CCA:** More specifically, the U.S. Government and CARICOM will work to identify a suitable modality through which project developers can obtain pre-feasibility and feasibility grants through the CEFF-CCA

(iii) **C-SERMS:** The CARICOM Secretariat with the support of a number of key development partners —EU, GIZ, JICA, IDB, and World Bank—will continue to advance the sustainable energy roadmap and strategy, to include the development of integrated maps for renewable energy resource and energy efficiency potential within the region, and the identification and adoption of realistic regional and national targets for renewable energy and energy efficiency, with the appropriate sectoral strategies and indicators to support their successful attainment.

(iv) **CSERMS Platform:** The CARICOM Secretariat will continue, with support from the U.S. Government, the World Bank, OAS, and other partner institutions, to develop and deploy the CSERMS Platform as a means of facilitating integrated resource planning at the regional level, and will encourage all parties to coordinate efforts through the CSERMS framework, which has established regional leadership for a number of thematic areas that are critical to the development of the sustainable energy sector. The Thematic Working Groups of the Platform will convene at least once per quarter to advance specific items under their respective mandates. Progress and performance assessments will be done periodically.

(v) **Focal Points:** The United States will establish a “Focal Point” or interagency coordinator(s) through which its respective departments and agencies will coordinate with the Caribbean on energy cooperation. The coordination role of the European Union Mission to CARICOM, which may serve as a focal point for the respective missions and agencies of the European Union, is also important.

(vi) **CSERMS Stakeholders’ Meetings:** The Caribbean Sustainable Energy Forum (CSEF), which is hosted every two years by the CARICOM Secretariat, is distinguished from other energy forums and conferences within the region as its main objective has been the facilitation of dialogue and actions towards more robust policies within CARICOM and serves as a conduit through which actions and issues related to the CEP and CSERMS may be evaluated and discussed by regional stakeholders. The CSEF, which will be next held in November 2016, will continue to provide an opportunity for review of progress towards CARICOM clean energy and energy security objectives, including the CSERMS targets. Opportunities will be explored for facilitating private sector participation in aspects of the Forum.

SECTION 2: U.S.-CENTRAL AMERICAN ENGAGEMENT ON ENERGY

In Central America, countries have largely secured domestic energy supplies, but high electricity prices continue to hurt competitiveness. Some Central American countries do face challenges, including: oil import dependency; a high dependence on hydropower that is susceptible to climate variations and droughts; and low credit ratings, small markets, and limited access to finance, leading to difficulty in attracting private investment.

Central America, however, has made significant advances in regional electricity integration and in diversifying its electricity supply with renewable energy. In 2014, 63.5 percent of electricity generated was from renewable sources, where hydropower represented a significant share. While Central America, at the time of this report, does not utilize much natural gas in the power sector, several commercial projects are under development in Guatemala, El Salvador, Panama, and between Mexico and
Guatemala. Central America’s solar, wind, biomass, and geothermal potential is widely recognized, and the region has the capacity to significantly increase its use of these diverse, renewable energy sources. The introduction of natural gas into Central America would reduce the region’s dependence on heavy fuel oil, diesel, and coal, and could reduce electricity prices.

Central America is also beginning to reap the benefits of a strong commitment to regional electricity integration through SIEPAC, a regional transmission line from Guatemala to Panama, which includes all Central American governments except Belize. Through SIEPAC and MER, Central America has established a unique and expansive electricity integration model: the MER does not replace the six national power markets, but rather it was constructed as a “seventh” market to augment and complement the national power markets in Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama¹, in partnership with Spanish, Mexican, and Colombian companies and the IDB.

Since 1996, when the six Central American countries signed on to the Framework Treaty of the Electricity Market, the three MER institutions (CDMER, CRIE, and EOR, described below) made efforts to conform, consolidate, develop and perfect the MER. As a result, today the regional electricity market is in operation and transactions are increasing, the regional transmission infrastructure has grown and is expected to expand, the MER institutions are specialized and coordinated, and regional regulations is advancing and continues to evolve. Bilateral electricity trade occurs between Mexico and Guatemala, as well as Mexico and Belize, but these bilateral transmission lines are not linked to SIEPAC, though they are connected to the Central American Regional Transmission Grid. Other proposals to create bilateral interconnections (Guatemala-Belize and Colombia-Panama) and to interconnect Mexico and Belize into SIEPAC are at various stages of discussion or project development. The project in development between Colombia and Panama would connect transmission grids between South America and Central America, in support of our leaders’ vision of a more interconnected hemisphere, capable of increasing electricity trade and expanding the market for clean energy.

The U.S. government, and the Ministers of Energy of the Central American Integration System (SICA), selected electricity integration as the topic of analysis for Central American Energy Security under the Task Force. Optimizing Central America’s energy resources through regional

¹ Belize and the Dominican Republic are not party to SIEPAC’s Framework Treaty or members of the CDMER, the Central American Task Force co-chair, but are addressed primarily in the Central American category for the purposes of this report.
electricity trade and an integrated electricity system enables greater quality, reliability, and competition, which holds the best prospects of lowering electricity prices and attracting private investment. The Task Force (U.S.-CA) recognized critical accomplishments Central America has made, including but not limited to:

- Since the 2013 implementation of MER regional regulations, commercial transactions over the SIEPAC line have quadrupled, but still represent less than 10 percent of regional electricity consumption due to transmission constraints.
- To strengthen MER governance, Central America created three MER institutions responsible for accelerating regional electricity integration: 1) the CDMER, the lead policy body comprising national representatives of the six governments; 2) the Regional Commission for Electrical Interconnection (CRIE), which is the regional electricity regulator, and 3) the Regional System Operator (EOR), which is the regional operator and system administrator. The inter-institutional coordination among the CDMER, CRIE, and EOR takes place through “Tripartite Meetings” of the three governing boards and through Meetings of the technical committee of the MER, established by the executive secretaries of the three institutions. In the Tripartite Meeting of December of 2015, the first Joint Strategic Plan of the MER was approved, which assigns lead roles and timelines for 15 initiatives and activities to a) strengthen the institutions and regional strategic alignment, b) develop and fully implement the regional regulations, c) drive the expansion of regional generation and transmission, d) promote regulatory harmonization and e) increase and improve the operation of extra-regional interconnections.
- To promote regional generation and transmission, Central America implemented firm, short-term transmission rights in 2015.
- To enhance regional planning and optimize resources, in March 2016 Central America completed its first regional generation and transmission expansion plan, which will be used by the EOR to propose planned regional transmission enhancements in the coming months.
- In 2014, Central America finalized the construction of SIEPAC’s first circuit with potential of 300 megawatts (MW) of regional transmission capacity. The Regional Transmission Grid, which includes the SIEPAC line, has a regional transmission capacity of 300 MW.

The U.S.-CA Task Force considered that one of the key challenges to enhancing MER robustness is to overcome the various policy, regulatory, and technical constraints, that limit Central America’s ability to realize the full benefits of this ambitious initiative. The U.S.-CA Task Force determined that the MER institutions, with the support of the United States, should focus efforts on four short-term market constraints that were identified in the MER strategic plan, approved in December of 2015. In parallel to addressing the short-term barriers, the U.S.-CA Task Force committed to advance efforts to expand SIEPAC and the MER, including doubling SIEPAC’s transmission capacity and expanding power trade with Mexico.

**DEVELOPMENT AND REFINEMENT OF REGIONAL ELECTRICITY INTEGRATION THROUGH THE STRATEGIC PLAN OF THE MER**

The MER Strategic Plan was developed by the Executive Secretaries of the CDMER, CRIE, and EOR, in consultation with their respective boards of directors, and was approved at the Tripartite Meeting of the CDMER–CRIE–EOR in December of 2015. The Plan assigns each MER institution responsibilities for each initiative to drive development and refinement of the MER and resolve existing barriers. It was developed with financing support from USAID, and it includes Table 1 (next page).

Additionally, the CDMER, with support from the IDB, will develop proposed text for a Third Protocol to the Framework Treaty, to consider all aspects to improving the functionality of the MER and its objectives that would require such action. For example, further developing the institutional strength of the directing body CDMER, enhancing the definition of its responsibilities and competencies, and providing it with its own budget.

The MER Strategic Plan will be executed by the MER institutions with their own resources, which are derived from contributions from Central American state-owned electricity companies and with technical cooperation from the IDB and USAID.

**EXISTING AREAS OF COOPERATION**

The United States is working with Central America through a series of broad energy engagements, together with other important partners such as the IDB, OAS, and World Bank:

**ECPA**

The ECPA Ministerials described in the Caribbean section of this report also included participation of Central American energy ministers. In addition, several U.S.-supported initiatives targeted clean energy development in Central America, including but not limited to: a) Private Finance Advisory Network for Central America to provide coaching to renewable energy project developers; a Peace Corps...
### Regional Electricity Market

<table>
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<tr>
<th>Strategy</th>
<th>Initiative</th>
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<tr>
<td>Develop and Fully Implement Regional Regulations</td>
<td>Consolidation of the MER Ruling and CRIE Resolutions (transitional regulations and others not previously included in the broader regulatory framework) CRIE. (Jul-2016 to Jun-2018)</td>
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<td></td>
<td>Evaluation of legal instruments for the development and consolidation of the MER, including the mandate of the Tripartite Meeting referring to taxes. CDMER. (Mar-2016 to Jun-2017).</td>
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<td></td>
<td>Development and implementation of firm contracts and long-term transmission rights (including the evaluation of regional contracts with priority supply contracts and short term transmission rights. CRIE. (Oct-2015 to Jun-2017).</td>
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<td></td>
<td>Revision and implementation of the process of the Regional Commercial Measuring System (SIMECR), post-dispatch processes, and comercial transaction processes for real-time transfers. EOR. (Jan-2016 to Sep-2017).</td>
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<td></td>
<td>Development of interconnection regulations to the SIEPAC line. CRIE. (Oct-2015 a Mar-2016).</td>
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<tr>
<td>Promote the Development of Regulatory Harmonization</td>
<td>Develop evaluation mechanisms and proposals to improve regulatory interfaces. CDMER. (Mar-2016 a Sep-2017).</td>
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### Generation and Regional Transmission

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<tr>
<td>Drive the Expansion of Regional Generation and Transmission</td>
<td>Implementation of the Regional Generation and Transmission Planning System (SPTR), and presentation of studies on required regional transmission and generation infrastructure. EOR. (Jan-2015 to Sep-2016).</td>
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<td>Development of interfaces for national and regional transmission planning coordination. CDMER. (Jul-2016 to Jun-2017).</td>
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<td>Development of regulatory mechanisms for the construction and servicing of national reinforcements and monitoring of regional transmission capacity. CDMER. (Jul-2016 to Jun-2017).</td>
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### Institutions

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<tr>
<td>Institution-strengthening and Alignment of Regional Strategy</td>
<td>Development of shared mechanisms of inter-institutional coordination, monitoring, and follow-up. CDMER. (Jan to Jun-2016).</td>
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<td></td>
<td>Development of additional resources for CRIE decisions and dispute resolution mechanisms. CDMER. (Jan-2015 to Sep-2016).</td>
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### Electricity Integration

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<tr>
<td>Increase and Improve the Operation of Extra-Regional Interconnections</td>
<td>Present options to improve the regulatory framework for technical operation of the Guatemala-Mexico interconnection. EOR. (Oct-2016 to Sep-2017).</td>
</tr>
<tr>
<td></td>
<td>Consider political, legal, and regulatory frameworks for extraregional interconnections. CDMER. (Jan-2016 to Dec-2017).</td>
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Table 1: Excerpt from MER Joint Strategic Plan
initiative that trained Peace Corps Volunteers in Central America to implement small-scale renewable energy projects and clean cookstoves; an Institute of the Americas grant to convene policy dialogues on SIEPAC; a grant to a Costa Rican university to demonstrate smart grid technologies; as well as visits to the National Renewable Energy Lab and other exchanges to promote advanced, clean energy technologies. The United States and Mexico also convened a ministerial level meeting in Merida, Mexico in May 2015 where the ECPA steering committee was established. Members include Mexico, Jamaica, the Dominican Republic, Trinidad & Tobago, and the United States. Chile will host the next ECPA Ministerial meeting tentatively scheduled for fall 2017.

Ministerials
In 2012 and 2015, on the margins of the UN General Assembly meetings in New York, the U.S. Department of State convened Foreign Ministers to advance the Connect 2022 initiative and other regional energy initiatives. The United States and IDB co-hosted a Ministerial on Mesoamerican Electricity Integration in June 2013, in which Energy Ministers from Central American countries, as well as Mexico and Colombia, endorsed a Joint Statement and Action Plan to advance Mesoamerican electricity interconnection. In 2013, on the margins of President Obama’s visit to Costa Rica to meet with SICA leaders, the U.S. Department of State and Costa Rican government convened Central American Energy Ministers. The United States participated in the IDB-supported December 2014 Ministerial in Panama celebrating the completion of SIEPAC’s regional transmission line.

Engagement with Private Sector
The U.S. Department of State joined the Government of Guatemala, IDB, and World Bank to organize the “Connecting the Americas 2022” Mesoamerican Energy Investment Summit in November 2014, in Guatemala City, which convened public and private sector representatives to discuss opportunities and risks for investing in Central American electricity markets. Energy Ministers and private companies highlighted the need to enhance the regulatory and investment frameworks to increase cross-border electricity trade and investment in the MER. Opportunities to introduce natural gas in Central America also received strong attention, including Mexican and Guatemalan efforts to advance a cross-border gas pipeline and El Salvador’s natural gas project. U.S. government officials have also participated in various private sector conferences promoting clean energy investment in Central America.

Technical Working Groups
The U.S. Department of State participates in the Natural Gas Working Group of Mexico and Northern Triangle countries of Central America with the IDB. With funding from the U.S. Permanent Mission to the OAS, regional ECPA working groups have met to discuss pertinent topics including: Energy efficiency, Energy Measurement Standards and Labeling, the Deployment of Renewable Energy, Energy Education, and Smart Grids.

Regional Technical Assistance
The U.S. Department of State and USAID provide technical assistance on expanding regional power trade, strengthening the regional power market, increasing institutional capacity, deploying renewable energy, and electricity, with efforts totaling approximately $6 million in 2015; these efforts strengthen national electricity markets and the MER, MER institutions, advance clean energy deployment, and increase project level investment opportunities. USAID also supports financial institutions in designing and implementing energy efficiency and renewable energy credit lines to facilitate clean energy investments. With funding from the U.S. Permanent Mission to the OAS, the U.S. National Institute of Standards and Technology provides technical assistance to National Bureaus of Standards in the use of the energy and climate measurements and standards that are required to deploy effectively renewable energy technologies.

National Technical Assistance
The U.S. Department of State has provided technical assistance on optimizing energy resources in Costa Rica, power sector reform and renewable energy integration in Honduras, and natural gas development in Guatemala; USTDA has provided feasibility study funding on LNG development in Panama; with funding from the U.S. Permanent Mission to the OAS, an ECPA initiative promoted the integration of water and energy management systems in Panama, provided assistance to Guatemala in researching and promoting hybrid energy systems, and helped Nicaragua research energy diversification strategies and expand rural electrification via solar energy. USAID has provided significant technical assistance at the national level in Central America, including assistance to implement energy efficiency standards in Costa Rica, Panama, and El Salvador. USAID supported municipalities in El Salvador to develop energy-efficient street lighting projects to save energy and money, offset fossil fuel generation and reduce public security risks and crime. USAID has also assisted El Salvador to implement a new tender process for investment in a 100MW of solar power and 50MW of wind power. In addition, USAID has provided information technology tools, software, and training to the Guatemalan Ministry of Energy and National Energy Commission in Guatemala and El Salvador to improve long-term energy planning and adoption of clean energy in their respective national electricity grids. In Guatemala, USAID developed an online
tracking system for the National Electricity Commission to monitor the implementation of energy projects and identify any technical, regulatory, financial, social and environmental barriers for the development of a 455 MW clean energy portfolio. USAID will continue to provide national technical assistance over the next two years.

**Mobilizing Clean Energy Finance and Investment**

In addition to the CEFF-CCA, in Central America, in 2015, OPIC committed over $52 million to financing renewable energy projects. USTDA project planning grant funding, from 2009-present, is approximately $4.6 million for Central America.

**Technical Cooperation and IDB Financing**

The IDB has long been a leader in driving the process for electricity integration in Central America, as well as extra-regional interconnections. Through IDB technical and financing support, the regional transmission line (SIEPAC), the MER, and the regional entities are fully operative and taking decisive steps towards a greater integration of Central America with Colombia, Belize, and Mexico. The IDB has offered support for all aspects necessary to make the region’s objectives viable. The IDB has also financed 50 percent of the investments achieved for the construction of the SIEPAC line (US$253.5 million) and mobilized technical cooperation (US$19.4 million) to develop the policy and regulatory framework of the MER, and develop the three regional entities (CDMER, CRIE, and EOR). Additionally, in the last 10 years, the IDB has approved more than US$960 million in loans to the energy sector of the six Central American countries.

**U.S.-CA TASK FORCE MEETINGS**

In addition to numerous bilateral consultations, the following U.S.-CA Task Force meetings were held:

**Consultations on the U.S.-CA Task Force with Central America [July 21 in San Salvador, El Salvador]**

On the margins of a SICA Council of Energy Ministers, U.S. Special Envoy Amos Hochstein co-chaired a meeting with El Salvador Energy Secretary Luis Reyes (then SICA President Pro-Tempore), including participation of Energy Minister or Vice Minister representatives from SICA governments.

**Consultations on the U.S.-CA Task Force with SICA Foreign Ministers [October 1 in New York City]**

On the margins of the UN General Assembly, then U.S. State Department Counselor Thomas Shannon and U.S. Special Envoy Amos Hochstein consulted with Central American Foreign Ministers on Task Force objectives and progress.

**Formal presentation of the U.S.-CA Task Force to SICA Council of Energy Ministers [December 3 in San Salvador, El Salvador]**

State Department Energy Resources Bureau Senior Advisor Faith Corneille presented Task Force objectives and recommendations before a SICA Council of Energy Ministers.

**U.S.-Central America Task Force Meeting [February 3 in San Jose, Costa Rica]**

Special Envoy Amos Hochstein and CDMER PPT and Honduran Vice Minister of Energy Elvis Rodas co-chaired the Task Force meeting. The meeting included national
representatives to CDMER, representatives of the CRIE and EOR, IDB and World Bank officials, and U.S. officials from USAID, DOE, USTDA, and OPIC.

Meeting on the Status of the Central American Energy Integration Process [April 9 in the Bahamas]
The meeting included participation of State Department Special Envoy Amos Hochstein, the Vice Minister of Energy of Honduras Elvis Rodas, the President and officials of the IDB, and Ministers of Treasury/Finance of Central America and Mexico.

U.S.-CA TASK FORCE CONCLUSIONS
A larger, dynamic, and more competitive MER, supported by robust national and regional transmission systems, is Central America’s best option for energy transformation, mobilizing investment, and enhancing economic competitiveness. The efforts of the U.S.-CA Task Force focused on short-term technical and regulatory challenges affecting SIEPAC, and accelerating market expansion to allow the MER to become a platform for increasing trade, competition, and private investment. Specifically, the U.S.-CA Task Force oriented its support toward the resolution of four short-term market constraints affecting SIEPAC and the MER as identified in the MER Strategic Plan (listed below), which in parallel promoting the long-term market objectives, including the potential doubling of SIEPAC’s capacity, studying electrical interconnection between Belize and SIEPAC, and expanding energy trade between Mexico and Central America.

Resolving Shorter-Term Constraints:

(i) To utilize SIEPAC’s current capacity of 300 megawatts (MW), all countries committed to complete priority national transmission upgrades by 2018 and have identified financing needs to do so, with support from the IDB.

(ii) To resolve technical grid disturbances (known as oscillations) that threaten grid stability, the CRIE will decide, as soon as possible, on the proposed $1.5 million budget to support EOR’s action plan and technical working group.

(iii) To encourage private investment, the CRIE, in collaboration with CDMER and EOR, will develop and implement long term and firm transmission rights, and will establish long term and firm energy contracts by the second quarter of 2017, with support from the U.S. Department of State and IDB.

(iv) To build greater investor confidence in the MER, with support from USAID, CDMER will develop a dispute settlement mechanism by the third quarter of 2016, to include developing an external and independent appeal process to CRIE resolutions.

Accelerating and expanding regional electricity integration:

(i) Following the March 2016 approval of Central America’s first-ever regional transmission and generation expansion plan, CDMER initiated a feasibility study for doubling SIEPAC’s capacity to 600 MW, with support from the IDB. The study will determine commercial and technical viability, calculate the second circuit’s regional benefits, and propose various finance mechanisms.

(ii) To explore opportunities for expanded power trade with Mexico, including a Mexico-SIEPAC electrical interconnection, CDMER initiated a dialogue with the Mexican government in 2016, with the participation of the United States. CDMER, CRIE, and EOR also established a commission in December 2015 to develop policy, regulatory, and technical framework for a future Mexico-SIEPAC interconnection. The Interconnection Commission will engage in dialogue with the Mexican government in May of 2016, with the support of the United States.

(iii) To consult on investment requirements to expand the regional transmission system, in February 2016, CDMER informed Central American finance ministers on financing needs for national transmission upgrades to utilize SIEPAC’s current capacity of 300 MW, and initiate the feasibility study to double SIEPAC’s capacity to 600 MW.

(iv) To consider the possibility of a Belize-SIEPAC interconnection, the U.S.-CA Task Force agreed to evaluate the proposal once an IDB-supported feasibility study is completed by the end of 2016.

NEXT STEPS
The State Department and USAID will continue supporting the process of regional electricity integration with technical assistance and the promotion of clean and less-polluting energy. The IDB will continue providing technical and financial support for regional electricity integration and other priorities of the U.S.-CA Task Force. The IDB is providing US$54.2 million in loans for the financing of national reinforcements, which are necessary for countries to recover regional transmission capacity in the regional transmission grid, of which the SIEPAC line forms a part. The IDB will also: mobilize technical cooperation to support
the implementation of the MER Strategic Plan (US$1.65 million); support the financing of a feasibility study for the Second Circuit of the SIEPAC line to increase regional infrastructure and increase the market transactions; elaborate a proposal for the Third Protocol to the Framework Treaty that allows the overcoming of obstacles identified in the fully-developed MER; and establish a political, legal, and regulatory framework between the Mexican electricity market and the MER to expand opportunities for energy trade between those markets.

SECTION 3: UNITED STATES PARTNERSHIP AND COMMITMENT

The United States has a number of tools that can help support both regions’ efforts. U.S.-CCA Task Force meetings in both regions addressed these tools, which include:

The Overseas Private Investment Corporation (OPIC)
U.S. Vice President Biden announced at the January 2015 Caribbean Energy Security Summit the establishment of a team at OPIC, with U.S. Department of State support, to pursue and underwrite clean energy deals in the Caribbean and Central American regions.

Clean Energy Finance Facility for the Caribbean and Central America (CEFF-CCA)
A partnership of OPIC, USAID, USTDA, and the State Department, the CEFF-CCA is a $20 million finance facility ($10 million in its first year) to provide grant support for early stage energy project development.¹

The Development Credit Authority (USAID)
DCA provides partial credit guarantees to reduce risks to generate additional lending to underserved markets and sectors and to demonstrate the long-term commercial viability of lending in developing markets.

Technical Expertise
In addition to technical assistance programs summarized earlier, the U.S. government has significant technical expertise in all areas of energy development, including electricity integration, off-shore oil spill preparedness and response, and clean energy development and deployment. Experts exist throughout the U.S. government (including the Departments of Energy, Interior, and State), state governments, national laboratories, and academic institutions. The Department of Energy’s Clean Energy Solutions Center provides free technical expertise to foreign governments, and others. The Department of State’s Power Sector Program provides support on energy access, reliability, sustainability, solvency, and regional power market development through direct advisor support, regulatory peer-to-peer exchanges, and engineering analysis. The Department of Interior participates in a Department of State-led program to provide technical expertise in the development of off-shore oil spill preparedness. USAID’s Central America Regional Clean Energy Initiative provides technical assistance to national and regional entities to strengthen their regulations and policies, address market barriers, diversify the energy matrix, and promote energy efficiency. The U.S. government will continue to explore opportunities for technical assistance to continue to support both regions’ progress.

Partnership with other governments and institutions
Through the North American Leaders’ Summit (NALS) process, Canada, Mexico, and the United States have committed to working with the Caribbean and Central America to improve access to clean, reliable, affordable energy. The United States also works closely with the government of Colombia on energy issues under the U.S.-Colombia High-Level Partnership Dialogue, including through discussion of Colombia’s approach towards energy reforms on the island of San Andres. The United States works in close partnership with the IDB, the World Bank, the EU, and a multitude of other stakeholders (academic institutions, such as Costa Rica’s INCAE business school, and NGOs such as the Carbon War Room) to ensure that our efforts collectively support the objectives of the Caribbean and Central American regions.

Leveraging the Private Sector
Respecting the various electricity sector models (public, mixed, private), the United States will continue to facilitate dialogues for technical and business development exchanges between government and the private sector, including financiers, project developers, oil companies, and Silicon Valley entrepreneurs. Unlocking the strength of the private sector is critical to success.

Regional Energy Advisor
The U.S. government has established a regional energy advisor to deepen our cooperation with both Central America and the Caribbean.

¹ The facility can be accessed by the following website: https://www.usaid.gov/where-we-work/latin-american-and-caribbean/clean-energy-finance-facility-caribbean-and-central
SECTION 4: FINAL CONCLUSIONS

The energy security challenges in the Caribbean and Central America are not unique: access to cost-effective, reliable energy is a major challenge and impediment to competitiveness for a majority of countries across the globe. The Task Force for Caribbean and Central America Energy Security—represented by the Caribbean Community Secretariat, Central American Regional Electricity Market’s Council of Directors, and several U.S. agencies—seeks a transformational solution to these perennial problems.

Within the Caribbean, some countries have made considerable progress in the establishment of enabling policy and regulatory frameworks directed to mainstream renewable energy and energy efficiency into core sectors of the economy and industry. However, in many cases the practical implementation of these commitments remained at initial stages and has not transformed into optimization of the investment opportunities and economies of scales. A combination of improved governance; increased coordination among donors through the CSERMS framework; and enhanced access to global public finance; are key to leveraging the private investments that are required for energy sector reform. This framework provides new opportunities for regional cooperation and Caribbeanwide energy reform.

In Central America, regional electricity integration, an enabler of energy diversification with renewable energy and natural gas, will mobilize greater investment and lower electricity prices. The region has a strong history of cooperation through SIEPAC, but transforming the regional market from a limited spot market to one that drives investment and competition will require significant political will and close regional cooperation. Exploring the possibility of expanding natural gas trade will require similar regional coordination.

The Caribbean and Central America perform strategic energy planning separately. On account of the similarities in their energy challenges, there are opportunities to think strategically about the energy security of the Caribbean and Central America as a whole. This approach may provide new, unexplored opportunities for unlocking potential solutions, vis-à-vis the Caribbean only and Central America only approach. For instance, LNG terminals in El Salvador, Panama or Jamaica could affect natural gas trade within the region; and solutions for mitigating the development risk for geothermal energy in St. Kitts and Nevis may influence the opportunities in Nicaragua. In essence, the result of this engagement may be a paradigm shift in which national energy security relies on energy security in neighboring countries and on coordinated solutions among neighbors.

Each country within the Caribbean and Central America has a vision for its own energy security. Regional solutions that leverage the combined strengths of the United States and its various international partners, including IFIs, bilateral and multilateral donors, as well as the owners of technology and capital within the private sector, can unlock the future that all participants seek: one in which governments within the region are able to optimize the mix of public and private capital for deploying clean, efficient, sustainable and affordable energy services to support human and economic development within the respective countries. In particular, the U.S.-CCA Task Force recognizes that energy is not an end in itself but a central enabler of sustainable development.