



## ROUNDTABLE REPORT

**AMERICAS ENERGY AND CLIMATE SYMPOSIUM**

LIMA, PERU

JUNE 14-16, 2009

## **BACKGROUND**

This report is designed to accompany the briefing paper<sup>1</sup> prepared by CCAA for the “Americas Energy and Climate Symposium” (AECS) which took place in Lima, Peru, on June 15 & 16, 2009. As a part of the AECS, CCAA held a Roundtable on June 14, 2009, with some of the countries from the Caribbean and Central America that were participating in the Symposium. CCAA also held discussions with individual countries that participated in the AECS, but who were unable to participate in the June 14 Roundtable because of scheduling.

Some of the issues highlighted in the report are pulled from presentations given by presenters not directly related to the Caribbean/Central American sub-region, but are used to highlight best practices or opportunities that could be pursued by the sub-region.

The briefing paper, together with the analysis presented in this report, will provide the background for a follow-up event focusing on the countries of the Caribbean and Central America, currently slated to take place in September, 2009, in the Dominican Republic.

## **PARTICIPANTS (ROUNDTABLE)**

Anton Edmunds	Caribbean Central American Action
Sally Yearwood	Caribbean Central American Action
Walker Williams	Caribbean Central American Action (consultant)
Jeremy Martin	Institute of the Americas
Sam Browne	U.S. Department of Energy
Carlos St. James	Cámara Argentina de Energías Renovables, Argentina
Ing. Gloria Villa de la Portilla	Dirección Sectorial de Energía, Costa Rica
Ing. Freddy Nuñez	Comisión Nacional de Energía, Dominican Republic
Francisco Rivas	Secretaria de Recursos Naturales y Ambiente, Honduras

## **PARTICIPANTS (MEETINGS WITH OTHER SUB-REGIONAL DELEGATES)**

Dr. Paul Flowers	Ministry of Natural Resources & Environment, Belize
Amb. Odeen Ishmael	Ambassador of Guyana to Venezuela, Guyana
Minister Jacques Gabriel	Minister of Public Works, Haiti
René Jean-Jumeau	Ministry of Public Works, Haiti
Marcia Forbes	Ministry of Energy & Mining, Jamaica

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<sup>1</sup> See Annex 1: “Preparing for a Hemispheric Energy and Climate Agenda”.

## **SECTION 1: REPORT ON THE SUB-REGIONAL ROUNDTABLE**

This section addresses the discussions during the Sub-Regional Roundtable, as well as any discussions that took place with representatives from the Sub-Region. Discussions during this Roundtable were focused on the agenda laid out by Caribbean Central American Action in a briefing paper around the four principal issue areas outlined in this section.

### **Issue 1: Coordinating Local and Regional Legislation, Standards, and Policies**

#### *The Local Level:*

Countries are becoming increasingly pro-active in determining their national energy policies. Most of the countries present have either finalized their energy policy or were in the process of finalizing one. Some countries have drilled down to creating specific policies that respond to emerging energy issues. Examples of the types of policies that are being implemented are as follows:

- a) By 2010, Costa Rica is expecting to have a formal energy policy on bio-diesel and all energy policies must incorporate climate change considerations;
- b) Also in Costa Rica, the government is looking at bringing back the electrical transit system (train) to reduce dependence on fossil-fuel powered transportation;
- c) In the Dominican Republic, legislation has been put in place to address non-technical losses, such as electricity theft. This reflects the need to address a culture of non-payment of electricity bills in a country where, until last year, stealing electricity was not illegal;
- d) In Honduras the goal is energy independence. Laws are moving towards energy awareness;
- e) Jamaica's National Energy Policy is to be issued by the end of June, 2009. There is now a center for renewable energy.

#### *The Regional Level:*

Both the Central American Integration System (SICA) and CARICOM are working to address energy policy on a regional level. As noted in the briefing paper, however, political and economic differences among countries have not allowed for full implementation of harmonized energy systems. Countries at the Roundtable stressed that there is a particular and urgent need to push regional dialogue and information sharing on best practices. Regional bodies addressing energy issues such as OLADE can play a critical role in helping build regional awareness and harmonization.

### *Challenges:*

- One challenge noted relates to the price of electricity, which is the de facto link between politics and energy policy. Some countries in the region subsidize the price of electricity for residential use – and while this is broadly seen as costly and unsustainable, politicians are unwilling to take the political risk of calling for a raise in rates if it will affect votes. Subsidies impact investment into the sector.
- Private sector participants stressed that countries that want to address their energy security in a serious manner must look at their internal policies for energy and energy investment. They must find the barriers and then do what needs to be done from a policy stand-point to remove the barriers.
- Governments must make their decisions on renewable energy carefully; specifically, food security must take precedence over bio-fuels production.
- There must be buy-in to policies and projects from the local and national authorities to ensure that there are no costly social repercussions when projects are being implemented.

### **Issue 2: Improving Infrastructure**

The development of the energy sector requires a large amount of investment into related infrastructure, from production to transportation to distribution. There is also a need for the technical assistance to ensure that countries have a firm grasp of the capacity that is available nationally. Some of the projects underway that were highlighted include:

- a) The Dominican Republic is currently building two 600 MW plants to generate electricity using natural gas and coal. In the next 3 years they expect to add 480 MW of mostly hydro-powered generation capacity. The problem in the DR is not generation, which is fairly efficient, but transmission and non-technical losses. To counter technical losses, the DR is installing new transmission lines on a broad scale and developing projects to improve the distribution network;
- b) Also in the Dominican Republic, the IDB is providing significant TA for a wide range of projects related to energy including a “wind map” of the DR;
- c) Honduras has forty projects currently underway to improve energy generation and transmission capacity (the energy matrix in Honduras is broken down as approximately 70% fossil fuels and 30% renewables – primarily hydro and biomass/bagasse);

- d) SIEPAC is developing a fund to underpin the Central American energy integration efforts; however funding is insufficient given the scale of the project.

*Challenges:*

- Financing infrastructure needs to include roads that a) link the un-served or underserved populations to the distribution grids; and, b) link areas that hold energy production potential to the generation and distribution centers.
- Globally, there have been programs that have been undertaken to improve energy efficiency by subsidizing the replacement of old equipment (refrigerators, buses, etc.) with more energy-efficient models but there are challenges to this. One is the massive amount of financing that is needed to make this feasible. A second challenge is the ongoing difference in costs; a common example is light bulbs and the significant price difference between a regular light bulb and an energy efficient light bulb. The long-term advantages related to reduction of energy used and longer life-span of the bulb are not going to compete with the immediate cost decision that has to be made if the energy efficient bulb is up to 6 times more expensive. It was pointed out by the Department of Energy that there have been programs to deal with this by (for example) having the generation companies provide rebates.

### **Issue 3: Promoting Private-Public Partnerships**

Private-public partnerships are critical to a country's capacity to provide competitive and efficient energy. The point was made that in countries where there are clear policies in renewable energy there is investment in renewable energy. These policies should take into account the fact that the rates for energy do not justify investment into the necessary infrastructure but when the government takes this into account and provides the appropriate policy framework, the private sector will move forward with projects.

There have been issues with the governments not disseminating adequate information on energy projects and policies. As the governments generally need to develop private-public partnerships in building energy infrastructure, it is imperative that there be better information available to potential investors.

Countries such as Jamaica, the Dominican Republic, and Haiti took advantage of the forum to publicly call for partnerships in renewable energy. One of the countries present suggested that if the U.S. is to be the leader in the hemisphere of promoting greater energy

efficiency, a fund should be created to foster greater investment into energy efficiency technology and awareness.

Some countries, notably Honduras, are considering laws that will provide incentives to private investment by allowing for the importation of new technologies.

#### **Issue 4: Building Capacity, Creating Awareness, and Fostering Research and Development**

- Better management of the energy supply matrix will rely on better technology, greater energy efficiency, and public awareness through education. The technology breakthroughs in the energy sector are impressive – the region must find a way to benefit from existing technology and to share this on a regional level so that there is no unnecessary replication of projects. As an example, Costa Rica’s advances in establishing an energy efficiency laboratory could be an opportunity for sub-regional cooperation and information sharing.
- Many of the Central American and Caribbean countries stressed that information gathering and sharing is critical – countries need to learn from each other about the laws that are being passed, experiences in best practices, and the projects that are being implemented. It is equally important that they learn from the mistakes that have been made. However, while international and regional forums are important, it is clear that energy policy and energy security discussions must take place at the national level.
- Local populations can be against energy projects; energy security must be approached with local populations as an integral part of the discussion. As stated by the Minister from Honduras: “Non-opposition is the key; there must be the democratization of projects.”
- Education and innovation is essential. Governments should provide scholarships for post-graduate studies in the energy and environmental related fields. Larger countries in the hemisphere are implementing new courses and training to meet the energy challenges.

## **RECOMMENDATIONS:**

1. It is clear that all of the countries see a need for “energy cooperation” writ broadly – the need for information and resource sharing were cited continually – however, it is also very clear that in the short term, while there are some very large energy integration partnerships that are underway, energy security and policy has to start at the national level. The challenge, therefore, is to define what a “Hemispheric Energy Partnership” means at the sub-regional level, and how to support this partnership financially. Areas that have real short-term potential would include: a) education in energy-related fields through scholarships and grants; b) information sharing by linking into existing systems (such as the Renewable Energy Chamber of Argentina) or creating a sub-regional equivalent.
2. On the sub-regional level there is a need to understand the technical assistance that is available. Any follow-up event should begin to gather information on the bi-lateral and multi-lateral assistance that countries may be able to tap into. One example was the information provided at the Roundtable that the National Renewable Energy Laboratory (NREL) has been mapping the hemisphere’s renewable energy potential.
3. The private sector participants, while not critical of individual governments, raised a number of areas that must be taken into account. First is the important need for transparency in developing energy policy. As much of the investment into energy projects in the region requires private sector involvement, there must be a sense of security that the rules are being applied evenly and fairly. Second is the need for the government to have the capacity to analyze and understand energy projects so that they are not held in limbo for long periods of time. Third is the need for the private sector to have some confidence that the projects that they are buying into have broad community support, in order to avoid costly or irreversible damage to a project’s ability to move forward.
4. While events such as the AECS provide invaluable for information sharing, the region does not seem to have any standardized process for ensuring that information is disseminated systematically. Clearly Guyana and Belize have made tremendous strides in policies on reducing the carbon footprint and Costa Rica and the Dominican Republic are having success in diversifying their energy matrix, but have the “best practices” in moving towards these successes been documented? If not, there is an opportunity to start this process.

In addition, the following issues should be considered as CCAA works to develop the agenda for the Sub-regional event:

- Harmonization of regulatory frameworks in the region to create an efficient energy sector taking into account both the advantages and challenges related to the available capacity and economies of scale and scope. What are the options available to generate sufficient economic activity, improve efficiency, and improve the region's competitiveness?
- The rationale and need for a coherent regional and, if possible, Central America and Caribbean position with the view to ensure that their smaller economy interests are at the table. Specifically addressing the social, economic and environment implications related to climate change and the need and urgency for action in terms of implementing, adapting and mitigating measures that would enlist public, private and community participation.
- The need for Central America and Caribbean smaller economies to speak with one voice in negotiating favorable interventions like carbon trading that would help to address the problem of climate change while supporting development initiatives in their countries, possibly with creative funding options. (These discussions should take into account the very special needs of poor people and small farmers to ensure they also benefit from carbon incomes.)
- Energy efficiency strategies that focus on how to assist smaller economies promote and adapt energy-efficient light bulbs, air conditioners and other home appliances and ways to raise the market share of such appliances in these economies.
- A Central America and Caribbean framework position regarding renewable energy options in anticipation of the Copenhagen meeting in December.
- The technical assistance and relevant energy research data available to these participating Central American and Caribbean countries. This technical assistance might also include assistance to these countries in developing their energy policies and help in drafting (if necessary) their country's energy plans.
- Regional cooperation in capacity development and training for their respective ministries to promote "best practices," research and development, pilot financing options for energy projects to help promote consensus and strategies to advance clean energy.

## **SECTION 2:**

During the course of the Americas Energy and Climate Symposium there were issues that are clearly Hemispheric in scope but have particular resonance within the Caribbean/Caribbean context. These broad issues are outlined in this section.

### **Symposium discussions affecting energy policy in the Caribbean and Central America:**

1. Even with a significant shift in energy usage to renewables, fossil fuels will continue to be the dominant source of energy for the foreseeable future, and demand from emerging economies for fossil fuels will outstrip progress in renewables.
2. The region has a delicate balancing act to address: there are countries in the Caribbean and Central America which house significant forest resources that provide critical environmental services to the rest of the globe (bio-diversity, water regulation, and carbon controls). However, protecting these global assets can only be done at a price to economic development, as the forests can be the source of timber, agricultural development, and mineral resources. Transitional funding is needed to slow down and avoid deforestation. The strong environmental preservation policies of Guyana and Belize are important in the context of the Haiti situation where almost 80% of energy consumption is from bio-mass which has led to excessive and non-sustainable exploitation of tree cover.
3. The cost of “greening” economies is extremely high. How do small economies meet the costs?
4. The IDB noted that there are challenges to promoting renewable energy in the hemisphere. The first is the cost: renewable is more expensive than fossil fuels; it is important that subsidies be provided in the construction stage through the provision of some start-up capital. Second is the natural risk: as renewable energy depends on wind, water, and sun, they are vulnerable to climate variations and “natural acts.” Third is the banking/commercial risk, with the current liquidity crunch affecting infrastructure project; this would argue for public/private partnerships where government can temporarily assume the risk.
5. Fluctuations in oil prices put a significant strain on the economies. The example of Jamaica (which has 90% dependence on imported petroleum) was given where in 2006, fuel imports cost \$1.7 billion; in 2008, the cost was \$2.7 billion. This accounts for a very high percentage of the country’s foreign exchange.



## **ANNEX 1**

### **Preparing for a Hemispheric Energy & Climate Agenda: Understanding Issues Affecting Central America and the Caribbean**

#### **Americas Energy and Climate Symposium**

**Lima, Peru**

**June 15-16, 2009**

Caribbean Central American Action (CCAA) has partnered with organizers of the Americas Energy and Climate Symposium (AECS) to host a Sub-Regional Roundtable for representatives of the countries of Central America and the Caribbean. This Roundtable will address the main issues and concerns of the participating governments in advancing towards a hemispheric energy and climate agenda.

CCAA recognizes that the countries of Central America and the Caribbean have consistently remained net importers of fossil fuels to supply their energy needs. Reports from the International Energy Agency and others have maintained that fossil fuels will continue to be the major source of energy for years to come, but it has also become a fact that such dependence on fossil fuels is not sustainable for these regional economies or for their environment. With the recent volatility in global oil prices and growing concerns of climate change, the small economies of Central America and the Caribbean are faced with a particular set of challenges in addressing sustainable energy supply security in the future.

Although both Central America and the Caribbean have made significant advances in their economies and energy programs, a hemispheric partnership will require that the region address framework issues in order to help pave the path towards a common energy and climate agenda. This Roundtable will help speak to some of those issues by providing a forum for dialogue in which Central American and Caribbean representatives can voice their vision and their concerns for regional and hemispheric energy policies at a time when energy security seems uncertain. The Roundtable will do so by following three principal goals:

- 1) To bring together the delegations from the countries of Central American and the Caribbean to meet on major themes surrounding a hemispheric energy agenda,
- 2) To bring special focus on the needs and nuances of the smaller economies as it relates to energy security, diversification and partnerships, and
- 3) To develop an agenda for a follow-up Symposium specific to these countries, currently planned for September 2009.

## **Addressing Regional Challenges**

While Central America and the Caribbean have significant geographic differences, an isthmus versus islands, they share common difficulties as related to the creation and enforcement of local and regional energy policies, their dependence on fossil fuels, energy efficiency and lack of infrastructure. This document outlines a number of areas where advances can be made in order to successfully engage in the proposed Energy Partnership of the Americas.

### **1. *Coordinating Local and Regional Legislation, Standards and Policies***

Both Central America and the Caribbean, as separate regions, have begun efforts to harmonize energy policies through 1) the Central American Integration System (SICA), and 2) CARICOM. However, instances of political and economic differences have not allowed their full implementation in individual states. Some of the policies adopted do not comprehensively address issues related to conservation and the diversification of energy matrices to reduce dependence on fossil fuels, hampering investment opportunities for the region.

A common policy approach to energy issues in both Central America and the Caribbean will help steer policies and programs that address challenges affecting both regions. This will also create a more favorable environment for private sector and foreign investors, offering opportunities to open markets with new energy-efficient technologies, expanded renewable and alternative projects, and much needed infrastructure.

#### **Questions and considerations:**

- 1) From a government perspective, what are the major challenges to the implementation of energy policies at the local level? Are they related to funding capacity, existing monopolies?
- 2) Do current national policies and standards meet the requirements set by regional institutions and other governments?
- 3) Is there a need for greater technical assistance for the drafting and shaping of energy and environmental policies and standards?
- 4) In Central America, although the region is successfully moving towards the integration of its electric energy market through the SIEPAC Interconnection project, what issues continue to hinder the integration of regional energy policies?
- 5) Recognizing that the region will remain primarily dependent on fossil fuels for energy in the near future, would a harmonization of fuel standards in the Caribbean be feasible for securing short term supply?
- 6) Overall, how ready is the region for a hemispheric energy partnership? What concerns arise out of this large scale policy and what short term policies would governments have to adopt to prepare for such a policy?

## **2. Improving Infrastructure**

Local, regional and hemispheric energy policies require the support of extensive infrastructural development. To lessen the dependency on imported fossil fuels, make better use of natural gas, and promote the production of biofuels – among other energy sources – sound infrastructure for production, transportation and distribution is required. Because of its dispersed geography, the Caribbean islands face challenges of provision of and access to energy services. In Central America, populations living in rural areas still have no access to electricity despite an inter-regional grid. Similarly, both the Caribbean and Central America are areas prone to natural disasters. Therefore, guaranteeing sound infrastructure becomes critical.

### Questions and Considerations:

- 1) To what extent can countries facilitate the development of the required infrastructure? Where is the most support needed and what steps have regional governments taken to obtain funding, particularly in the current economic climate?
- 2) Can partnerships between the countries of the Caribbean and/or Central America that support a harmonization of standards for new energy projects help attract investments in infrastructure?
- 3) Are regional governments taking advantage of technical assistance in areas such as mapping and feasibility studies as a means to attract investment in energy?

## **3. Promoting Private -Public Partnerships**

The role of government in the formation of energy policies is to address national needs and priorities of the state. In order to encourage investment, attract innovative and diverse technologies, and create successful projects, private sector input is needed. Public-private partnerships cultivate an environment of open markets for future investors in energy and other sectors of the economy, and also lead the way for integrated participation in a hemispheric energy agenda.

### Questions and considerations:

- 1) Given the size of the economies of the region, and certain geographical difficulties, how challenging has it been to encourage investment and competition in fossil fuel supply and renewable energy production?
- 2) Have the governments of the Caribbean and Central America done enough to create an environment that encourages foreign investment? What incentives have proven to be most successful?
- 3) Given that traditional sources of energy (oil & gas) will continue to be the major suppliers in the near future, what possibilities exist for partnerships between suppliers and governments to promote energy efficiency campaigns and jointly sponsor alternative fuel programs?

#### **4. *Building Capacity, Creating Awareness, and Fostering Research and Development***

Public awareness campaigns and proper dissemination of new or changing energy policies are also critical for gaining support for local and regional energy programs. This helps create a welcoming environment for investment by fostering community involvement in the process, which reduces potential opposition, thereby serving as an incentive to investors. They also help shape indigenous and culturally sensitive policies and provide reliable information about areas in need of development.

##### Questions and considerations:

- 1) What is being done to encourage sharing of knowledge/best practices amongst countries in the region, particularly for reducing the carbon footprint and dependence on fossil fuels? Is there an established process for information sharing among governments on latest developments and successes in renewable and alternative energy programs?
- 2) What support would governments need to engage in campaigns to sensitize society on energy supply security issues? What is the role of civil society organizations in the policymaking process on energy security issues?
- 3) Are governments requiring that all new projects comply with recent environmental standards? Has this created any setbacks to new projects?