

# ENERGY & THE COMPETITIVENESS OF THE CARIBBEAN

CCAA Regional Trade and Investment Forum



## EXECUTIVE SUMMARY REPORT

September 7–8, 2006

Port-Of-Spain, Trinidad

Hilton Trinidad and Conference Center

### HOSTS

Caribbean-Central American Action  
Government of the Republic of Trinidad & Tobago

### COLLABORATING ORGANIZATIONS

U.S. Department of Energy  
United Nations Development Program  
Inter-American Development Bank



REPUBLIC OF TRINIDAD & TOBAGO



## CONFERENCE EXECUTIVE SUMMARY

Energy security is the key to sustained economic development. With the price of oil projected to remain high for the future, it is imperative that both developed and developing nations reduce their dependence on fossil fuels and shift their emphasis to alternative and renewable sources of energy.

The 15 nations of the Caribbean (CARICOM) – which are particularly vulnerable to global climate change – must work in unison, as well as nationally and locally, to devise workable strategies to implement these new sources of energy. There is no one solution: rather, the approach must involve a mix of technologies: such as solar, geothermal, biomass, wind, biodiesel and ethanol, among others. Conservation, through energy efficiency, is another valuable technique, proven to be extremely effective in a number of countries, and it is also the cheapest solution. The government can serve as a prime driver of energy efficiency, by purchasing government facilities and mandating energy-efficient practices in all of them, including buildings, public transit systems and schools. The public sector accounts for 10-20% of GDP in most countries, so public sector initiatives such as this can cut energy costs substantially and stimulate energy-efficient markets by providing them with a creditworthy, long-term focused customer. All these approaches promise to be eco-friendly and will help conserve the pristine environment of the Caribbean, which is so crucial to its tourism industry.

The Caribbean can learn from the experience of other nations: such as the successful implementation of solar water heaters in Barbados, beginning in the 1970s, as well as Brazil's development of sugar-cane based ethanol as a viable alternative to gasoline in powering automobiles. For example, during the 1970s, the government of Barbados made a policy decision to support solar water heating manufacturers. This included incentives on imports, tax rebates and a mandate that all government-owned facilities have solar-based heating systems. Thirty years later, the policy has been a resounding success: today, 70% of all buildings in Barbados are heated by solar, including hotels, and 60% of the solar water heaters are produced locally.

In addition, there are a variety of programs and organizations to help the Caribbean achieve its goal of increased usage of alternative and renewable energy. Among these: CARICOM is developing a dedicated investment vehicle to finance energy projects, called the Caribbean Renewable Energy Fund, which will offer loans averaging \$100,000 per country to develop programs. In addition, CARICOM is coordinating a regional task force on energy policy that will remove barriers and foster commercialization. The Inter-American Development Bank (IDB) has an expanded mandate in this arena, including public, private partnerships (PPPs). PPPs are an official way to provide infrastructure through risk-sharing between the public and private sector. The Bank is eager to do deals

that improve the socio-economic situation of citizens in the Caribbean, and has a large portfolio of loans and guarantees in energy projects. The United Nations Development Bank (UNDP) and the European Union (EU) also have a variety of promising initiatives. The UNDP, through its Global Environmental Facility (GEF), has donor pledges of a minimum of \$1 million for each Caribbean country. For its part, the EU has set up a specially targeted energy initiative for Africa, the Caribbean and the Pacific, to reduce poverty and enhance energy access and efficiency. To reduce costs of financing renewable energy projects, there is the potential to pool projects and offer one large project, as well as enhance cooperation among Caribbean governments and export energy to neighboring islands.

Enabling foreign investment in energy projects requires a number of steps. There must be a workable energy and environmental policy in place, a legal and regulatory framework, technical support and training, and a secure environment for investors, among other factors. On the positive side, there is a large pool of available capital in the Caribbean currently looking to finance viable energy projects. Moreover, both private-sector financial institutions, as well as those with a development mandate, are available to provide financing.

Beyond financing, there are opportunities for technical assistance, development of entrepreneurial skills, and emphasis on job creation, which will help eradicate poverty in the Caribbean and improve the quality of life for its people. Residents of the Caribbean need to be educated about the importance of renewable energy, as well as energy conservation. Programs like Energy Star in the United States have proven very successful in teaching the public about energy-efficient appliances and could be replicated in the Caribbean. At the institutional level, there needs to be better collaboration with universities on renewable energy policy, new legislation to promote its use, and an exploration of the potential for trading carbon emissions with Europe and the U.S., since the Caribbean has lower emissions in this regard than they do. In addition, there needs to be increased Caribbean private sector ownership of the energy sector, rather than dependence on foreign companies. The energy sector is competitive in the Caribbean, which has 9.7% of the world's oil reserves, and needs to be supported. Moreover, Trinidad & Tobago could act as the regional hub for the supply of natural gas across the Caribbean.

Renewable energy is available now and viable commercially: indeed, \$38 billion was invested in it globally last year, and exponential growth rates are projected in biofuels. There are many promising developments in renewable energy that could be applied to the Caribbean. For example, production of ethanol—made from corn and sugar cane—is increasing globally, and the emerging technology of cellulosic ethanol from biomass has become feasible. Because of advances in technology, ethanol made from sugar cane is competitive when oil is \$30/ barrel.

The cost of producing biofuels continues to decline as the price of oil increases. Brazil's success with ethanol and the sugar cane industry furnishes an excellent example for the Caribbean.

A major challenge in the Caribbean is the lack of public policy on biofuels use. Currently, no nations in the Caribbean are using biofuels. To make this come about, the Caribbean will need technical assistance by major players, such as Brazil and the United States. With such assistance, the region could get a higher crop yield from sugar cane currently cultivated there. As a result, the agriculture and energy sectors will both improve, and oil imports will be reduced.

The biofuels industry holds the promise of creating new jobs and eradicating poverty. The World Bank has reported that for every unit of energy produced in the petroleum industry vs. the biofuels industry, 11 more jobs are created by biofuels. Biofuels will require a new legal and regulatory framework, however, so that all the players understand the rules of the game.

In conclusion, each national government of the Caribbean has the responsibility to provide a policy and regulatory framework for the establishment of renewable energy. If governments can do this consistently, the Caribbean will find itself in a position to leverage the region's assets and increase international funding. Because of its natural assets such as wind, water and sunlight, the Caribbean is well-positioned to be the leading region in the world in making the transition from a fossil fuel economy to one that is greatly diversified into renewable energy. Working with multilaterals, industry, NGOs, and various lending institutions, leaders in the Caribbean can make this a reality.

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