



# Energy Security and Food Security Link Brought into Focus during the First Half of 2011

The link between the energy and agriculture sectors in the Caribbean Community (CARICOM) was brought into sharp focus during the second quarter of 2011 as the Region sought to better understand the key drivers of the escalation in food prices and to develop appropriate responses. This issue was first raised by Senator the Hon. Joanne Massiah, Minister of State within the Ministry of Legal Affairs, Antigua and Barbuda in her remarks as Chair of the 35<sup>th</sup> Special Meeting of the Council for Trade and Economic Development (COTED) on Energy in March 2011.

This matter again took centre stage at the 32<sup>nd</sup> Regular Meeting of the COTED in May 2011, where it was included as a key Agenda Item at the request of the Government of Antigua and Barbuda. Presentations on this issue were made by various Units (including Energy and Agriculture) of the Directorate of Trade and Economic

Integration of the CARICOM Secretariat, which falls under the responsibility of Assistant Secretary-General, Ambassador Irwin LaRocque. Following those presentations, CARICOM Trade Ministers engaged in spirited discussions on the matter.

Rising world oil prices affect the prices of food and non food commodities mainly through the increased cost of inputs to the production and distribution process. For food commodities, the cost of fertilizer, irrigation, farm to market transportation, processing, export trade transportation, packaging cost, storage and the cost of transport for distribution to end users are all impacted. A debate is occurring however,



Senator the Hon. Joanne Massiah  
Minister of State within the Ministry  
of Legal Affairs, Antigua and Barbuda

as to whether increases in world oil prices are a significant driver of higher food prices, especially since the impact at the national level depends on the food production processes, as well as, the proportion of food commodities imported and domestically produced inputs, etc.

Two recent reports, one by the *World Bank (WB) Food Price Watch, April 2011*, and the other, a Policy note by the *Inter American Development Bank (IDB), April 2011*, support different sides of this debate. The former report titled, "*Poverty Reduction and Equity*" seemed to make a strong link between recent increases in food

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# Energy Security and Food Security Link...

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prices and the surge in oil prices, and their association with events in the Middle East (see figure below). It noted also that a 10% increase in crude oil prices is associated with a 2.7% increase in the World Bank Food Price Index through multiple channels. The latter report titled, "How Will the Food Price Shock Affect Inflation in Latin America<sup>1</sup> and the Caribbean?" pointed to other factors and identified rising oil prices as having only minimal impact on some Latin American and two Caribbean countries involved in the study, viz, The Bahamas and the Dominican Republic. It argued that the hike in

failures that contributed to the price surges of both 2007-8 and 2010-11.

**The Link in CARICOM:** It has been the experience in CARICOM, that increases in world oil prices have significantly negatively impacted food commodities prices. This is considered to be related to the large import component of food commodities, the resulting higher electricity costs (the Region having among the highest in the world) and higher transportation costs. The degree of impact varies from one Member State to another and needs to be further studied, using region and country specific data.

In treating with energy as an important input to the cost of food production and distribution in CARICOM, it was reiterated that Member States needed to re-double their efforts towards energy efficiency and conservation, explore alternate energy options, as well as, coordinate efforts towards regional strategic approaches. These approaches include the integration of energy systems to facilitate cross border trade in energy, as well as a review of the system used to reference the pricing of petroleum products in CARICOM.

With regard to food production and distribution, it was noted that the responses needed to be multi-sectoral, and effected through partnerships that include the private sector, regional institutions (e.g. UWI, CARDI) and international development partners, such as, the FAO, IICA, etc. The COTED also cited the need to review and assess items that are inputs to the food production process so as to identify those that could benefit from removal of the Common External Tariff (CET) as a means towards reduction of the cost of food commodities. The need to implement previously agreed policy actions, as well as the food and nutrition policy was also underscored.

A Consultation staged by the Food and Agriculture Association of the United Nations (FAO) in Trinidad and Tobago, June 2011, which benefitted from the input of regional and international experts, seemed to point to the need for improved information sharing of the prices of products and inputs, improved research and development (R&D), facilitation of cross-border investment, support for farmers organizations, strengthened legislative and regulatory frameworks, as well as, harmonization in various areas.

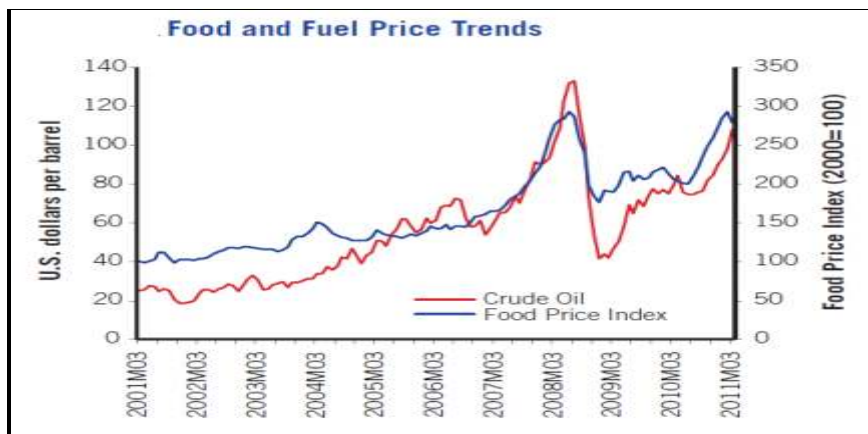


Figure: Food and Fuel Price Trends  
Source: Food Price Watch – World Bank

food prices is a result of a combination of medium-term demand increases, slower agriculture productivity growth and short term supply disruptions. It concluded that the medium-term trends had been exacerbated by a series of shorter-term events such as, the increasing use of corn (maize) to produce ethanol in the United States<sup>2</sup>. Also on the supply side, the higher frequency of extreme climatic events (from droughts in Australia, Argentina and Russia, to floods in the staple producing areas of the US) are to be blamed for the crop

**CARICOM's Response to the Impact of Rising World Oil Prices on Regional Food Prices:** *Inter alia*, the 32<sup>nd</sup> COTED concluded that while short term options are limited, medium and long term strategies must be sustainable and impacting. In general, the Region was challenged to adopt bold, innovative and more proactive approaches based on risk analyses, forecasting utilisation of regional natural resources and aggressive resource mobilisation at the international level.

<sup>1</sup>Bolivia , Brazil, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama , Peru , Uruguay

<sup>2</sup>The production of corn-based ethanol absorbed nearly 35 percent of the US crop, or about 15 percent of the global corn crop.

# Some Positive Developments in the Second Quarter of 2011

by Joseph Williams - Programme Manager, Energy

## 1. Heads of Government Identify Renewable Energy Development Among Top Priorities for the Community

At their Retreat held in Guyana in May 2011, CARICOM Heads of Government in seeking to focus the efforts of the Community identified Renewable Energy Development as one of the key priority areas for focus. This is significant given the critical importance of renewable energy development for: **i)** contributing to the increased energy security of the Region by forming a hedge to world oil price volatility through diversification of supplies; **ii)** laying the basis for economic competitiveness (through stable and lower cost over time); and **iii)** achieving a sustainable energy pathway and attaining low carbon development.

It is considered that this decision by the CARICOM Heads of Government coupled with the earlier mandate to develop a Regional Sustainable Roadmap and Strategy, now form the basis for the galvanizing support to assist Member States with their national strategies and related projects towards building capacity and increasing investments for RE.

## 2. World Oil Price Trend in the Second Quarter of 2011

The market remains quite volatile, but it is significant that after reaching a 33-month high in April 2011 (with Brent trading at US\$127 and West Texas Intermediate (WTI) trading at US\$114 per barrel), crude oil prices eased on average in May 2011, registering their first monthly decline since July 2010, owing to uncertainties in the global economic recovery, a stronger US dollar and speculative trading during the month. For net energy importing

CARICOM countries, this apparent turning point in the upward trajectory of world oil prices observed in the second quarter of 2011 is welcomed.

It is also clear that the members of the International Energy Agency (IEA) will not stand idly by and watch oil prices spiral to further catastrophic levels, as seen from their decision near the end of June to release into the market some 60 million barrels from their Strategic Petroleum Reserves (which is maintained for major supply disruptions). The USA is contributing approximately 50% of this amount which will reduce its reserves by 5%. At the time of writing, this move appeared to have slashed US\$10 per barrel off the two leading benchmark crude prices, WTI and Brent (*see figure below*). It is noted however, that despite reduced oil demand from the North American market, the tightening of supplies from OPEC member countries may add to upward pressure on prices over the coming months. It should also be noted that any reprieve in the upward trend in prices is welcomed by net oil importing countries within CARICOM. While



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higher world oil prices have positive revenue implications for the significant petroleum exporters in CARICOM (Trinidad and Tobago, and Suriname), it is also generally agreed that excessively high world oil prices will not be beneficial to the global economy and their longer term interest. The International Energy Agency (IEA) considers prices in the range of US\$70-US\$80 per barrel to be “fair price” to encourage continued investment in the petroleum sector.

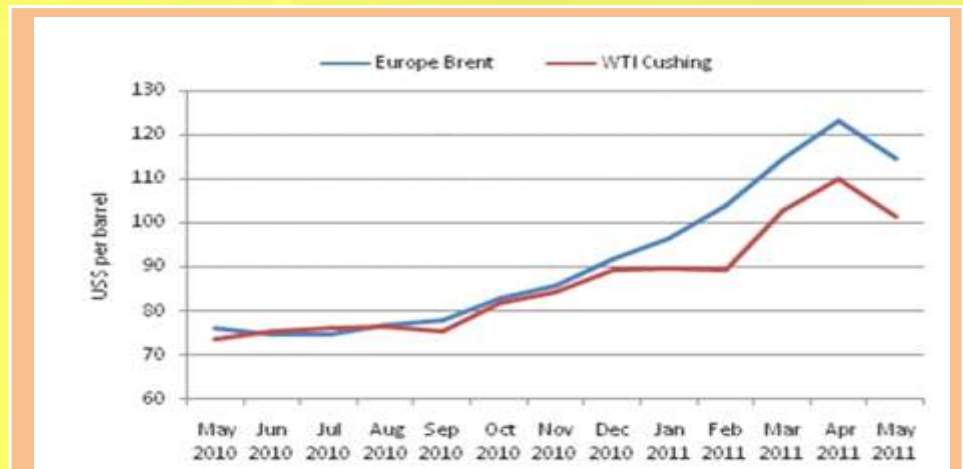


Figure: Trend in World Oil Prices (WTI and Brent)

NOTE: The WTI is the main US Benchmark for crude oil prices while the Brent is the main European benchmark price. The difference between the WTI and Brent is attributed to other supply and demand issues.

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## 3. Finalization of the CARICOM Energy Policy

The process of finalization of the CARICOM Energy Policy was advanced in May 2011 with the hosting of a Meeting of Senior Energy Officials via video conference to consider the updated version of the Draft Policy reflecting inputs from the 35<sup>th</sup> Special COTED (Energy), March 2011, as well as subsequent feedback from Member States. The process also benefitted from feedback from International Consultants, Detlef Loy and Dr. Trevor Byer. The Meeting

determined that Member States should be given more time to submit comments and that it would be necessary for another Meeting of Senior Officials to be convened, to further review the updates and finalise the draft to be submitted to CARICOM Energy Ministers. Another Meeting of Senior Energy Officials is being targeted for September 2011, while the Meeting of Energy Ministers via video conference is targeted for the last quarter of this year.

As mandated by the 35<sup>th</sup> Special COTED on Energy, an update on the status of the Policy was submitted to the 32<sup>nd</sup> Regular Meeting of the Conference of Heads of Government of CARICOM in July 2011. It is intended that the finalized CARICOM Energy Policy will be ready for presentation to the Inter-Sessional Heads of Government Meeting during the first quarter of 2012.

## 4. Plans for CARICOM Energy Week Advanced

A virtual dialogue of Energy Week Focal Points, representatives of CARICOM Member States and Implementing Partners was held on

June 27 to discuss plans and preparations for CARICOM Energy Week scheduled for 6-12 November 2011. This dialogue was supported by

OLADE through the utilisation of its Online Training Platform. *See update on page 8.*

## 5. Strong Global Performance in Growth of RE in 2010 - *Renewables 2011 Global Status Report*

The Renewable Energy Policy Network for the 21<sup>st</sup> century (REN-21) reported that despite continued economic recession and incentive cuts, in 2010, global renewable energy performed well, showing strong growth in all end-use sectors (viz, power, heat and transport) and supplied an estimated 16% of global final energy consumption. Renewable energy accounted for approximately

global electricity supply last year, and by early 2011 this increased to one quarter of the global power capacity from all sources. Global investments in renewables increased over 30% to a record \$211 billion. The strong performance was driven by increased

Government policies and incentives programmes, as well as a reduction in the price of PV modules.

The Renewables 2011 Global Status Report can be accessed at <http://www.ren21.net>



half of the estimated 194 gigawatts (GW) of new electric capacity added globally during the year. Renewables also delivered close to 20% of the



# Minister with Responsibility for Energy - Part 6



Honourable Samuel Hinds  
Prime Minister and Minister  
Responsible for Energy, Republic of Guyana

**Energy:** Prime Minister, what would you say are some of the most significant changes in Guyana's energy sector over the past two decades?

**Prime Minister:** The most significant change in the energy sector in Guyana over the past two decades has been in electricity generation and increased access to this service. At the commencement of the period under consideration, power generation capacity was inadequate to meet demand, with up to 50% load shedding being effected on a daily basis. The limited available generating capacity consisted mostly of diesel fired units supplemented by three old, unreliable 10 MW steam turbines.

An incremental transformation of the sector commenced in 1993 and by 1997, 54 MW of new power generation equipment was installed in six power plants (48 MW of which was HFO fired), a new 28 km, 69 kV transmission line was constructed while two 69 kV substations were expanded and electricity was introduced to an island in the Essequibo River to serve over 1,000 consumers.

In 1997 also, a rural electrification programme was implemented which allowed more than 5,000 consumers

access to electricity by 1999. In 2002, rural electrification continued under the Unserved Areas Electrification Programme which was intended to target 40,000 households. In fact, by 2008, networks were completed to allow 47,000 households access to electricity service. Over the past two decades, the customer base for the fully state owned electricity company (except for during the period 1997 to 2003) has more than doubled from 70,000 to 152,000 consumers.

The opportunity is being taken to consolidate and upgrade the sugar factories to better integrate their electricity production into the grid, and to install new bagasse fired boilers of higher pressure so that they can export power to the grid. The Guyana Sugar Corporation commissioned 10 MW of HFO fired capacity in 2007 and 30 MW of Bagasse fired co-generation capacity in 2008 at its new Skeldon Sugar Factory. In 2009, the Guyana Power and Light (GPL) completed a 20 km, 69 kV transmission interconnection to the factory that allows for the dispatch of more than 10 MW of power from that facility. This generation capacity is currently providing base-load service to the Berbice Interconnected System which has approximately 35,000 consumers.

In 2009, a new 20.7 MW HFO fired power plant consisting of three 6.9 MW units was commissioned with work currently in progress to expand this plant by 15.6 MW (2x7.8 MW units). Today, over 98% of the potential consumers on Guyana's Coast, where 90% of the population reside, have access to electricity.

**Energy:** Guyana has significant hydropower potential, more than any other CARICOM country, what in your opinion are the main challenges faced by the country in fully exploiting its hydropower resources

*and how could these be surmounted?*

**Prime Minister:** Indeed, the hydropower potential of Guyana has long warranted attention with considerations and preparations for exploiting some sites in the 1960s and 1970s. A study over the 1970s to early 1980s listed over 70 sites with potential of more than 7000 MW, about two thirds of this potential at about a dozen sites in two adjacent river basins arising in the Pakaraima mountains – the Mazaruni and the Potaro. The challenges facing development so far have been:

**i) Geography** – the sites are far from the coast where the local population and demand exist.

**ii) Development costs** – hitherto, the alternating rainy and dry seasons and the topography of the land have led to projected prices of power for a purpose built large consumer, such as an aluminium smelter, being uncompetitive with electricity from cheap gas and other fuels.

The potential for hydropower development in Guyana is now bright as:

- fossil fuel prices have increased dramatically over the last decades.
- awareness of the additions to Climate Change from the combustion of fossil fuels have sparked a worldwide effort to pursue renewables with concomitant interest in Guyana's potential.
- less costly hydropower sites around the world are used up and developers now see Guyana as having the potential to meet regional power needs.

# Minister with Responsibility for Energy - Part 6

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- there is greater readiness to conceive arrangements which can accept large swings in generation linked to the large seasonal variation in river flow.

It is well known that Guyana hopes that arrangements for the construction of a 165 MW hydropower plant at the Amaila Falls on the Kuribrong River would be concluded by the end of the year. This plant will be able to meet the peak demand of the national grid in Guyana. Also, it has been announced also that the Guyana-Brazil Cooperation includes reviews of the hydropower potential at other sites in Guyana and possible electricity supplies to Brazil.

**Eenergy**: At the 35th Special Meeting of the Council for Trade and Economic Development (Energy), CARICOM Energy Ministers called for urgent response at the national and regional levels to surges in oil prices on the world market, given its generally negative impact on food prices as well as macro-economic indicators. In what ways can Guyana respond to such challenges in the immediate future?

**Prime Minister**: Guyana will increase the call to its people to conserve on the use of petroleum based fuels, improve efficiencies and to consider renewable energy where it might now be economic. Recall also, Guyana's thrust towards switching electricity generation for its connected electricity grid from petroleum based fuels to hydropower and Guyana's call to its people to grow more food for local and national food security, and for export.

**Eenergy**: If you were to paint a picture of the energy use situation in Guyana's power generation and transportation sectors in the next twenty-years, say by 2030, what would that picture look like?

**Prime Minister**: Power generation should have been switched from 90% petroleum based to 90% hydropower

and bagasse based. Transportation fuels would be switched to blends of biofuels and petroleum. Studies are ongoing to produce sufficient ethanol from available molasses to initiate an E-10 blend in about three years time.

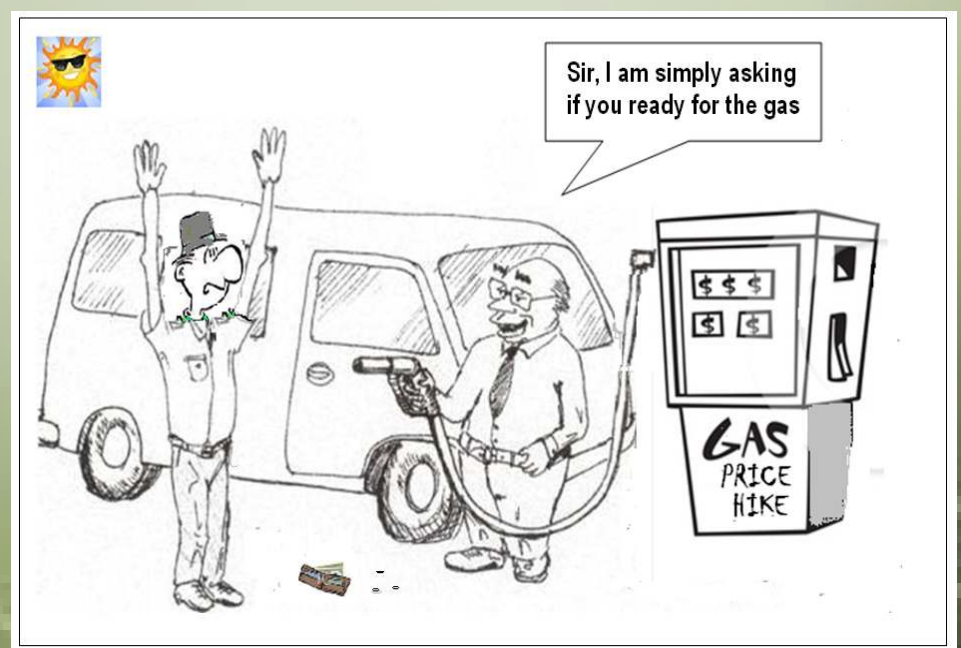
**Eenergy**: In your view, how important is the regional approach to energy sector development?

**Prime Minister**: There should be maximum sharing of information, experiences and practices. This should foster the realization of good solutions in each country, and create and maintain alertness and willingness to undertake joint actions for mutual benefit.

## Editor's Note

Highlighting Pioneers of CREDP Project: The Caribbean Renewable Energy Development Programme (CREDP) is a landmark renewable energy Project in the Caribbean. The Project is considered to have laid an important foundation upon which many of the emerging sustainable energy developments are based and upon which future scaling-up could take place. **Eenergy** hails the pioneers of the CREDP Project who were instrumental in its design and seek to highlight their contributions. Mrs. Mona Whyte is one of the architects of CREDP.

**Eenergy** congratulates Mrs. Mona Whyte for her contribution to the development of the CREDP Project, as well as her contribution to the development of Caribbean Energy Information System (CEIS) over the years. (*Owing to a number of constraints information for this usual feature was not secured*).



# CARBON FOOTPRINT LABELLING: An Increasing Trend which has Implications for CARICOM



**Carbon Footprint Labels** indicate a product's environmental impact or the quantity (in grams) of carbon dioxide emissions associated with making and transporting them. The practice which began in 2007 in Britain was aimed at letting shoppers identify products with the smallest footprints, thereby causing producers to compete to reduce the carbon footprint of their products and also provide information as to whether locally made goods really were greener than imported ones.

Although the practice is not yet widespread globally, it is quickly catching on, with labels now attached to a wide range of products. For example, in Britain, nine out of ten households reported buying products with carbon labels last year. In Japan, the Ministry of Economy, Trade and Industry launched a calculation and labeling programme in 2008 for which more than 300 retailers and manufacturers have signed up. South Korea has introduced a "Cool Label" which is now carried on over 220 products including furniture, rice and consumer electronics. Labels have been launched in Thailand (for 65 products), USA, Canada, Switzerland, Sweden and France.

## France to set the Pace for European Countries

France is considered to be making an aggressive push where, in addition to the Government-backed initiatives, there is the planned introduction of compulsory carbon labeling rules possibly as early as 2012, based on a law that was passed in 2010. This will be preceded by a yearlong experiment slated to begin this July 2011, that will involve 168 firms in a range of industries applying carbon labels to products including furniture and cleaning products. The accompanying campaign will raise awareness of carbon labels among consumers. Product category rules have already been drawn up by the French Standards Agency and the French Environment Ministry for shoes, wood, furniture, shampoo and fabric chairs. *"Other European countries will be watching the French experiment closely, not the least because their own exporters may have to adhere to the French rules. Inevitably this has led to calls for a European standard for carbon labeling."* *The Economist, June 4, 2010*

## Implications for CARICOM Countries

Although there are many challenges to overcome before widespread carbon labeling (including the need for harmonization of standards and simplifying the process), the implications of the current trends for energy production and energy efficiency in countries like those of CARICOM are apparent. Simply put, having national energy systems that are based on clean and renewable energy sources, as well as, energy efficient productive sectors will become increasingly important to achieve and sustain relative competitiveness of the Region's export products and services.

Further, it is considered that given the international nature of many supply chains, the process of calculating products' carbon footprints has started a focus on cross-border carbon flows rather than traditional national totals. This latter may provide importing firms in rich countries with an incentive to support the reduction of emissions in developing countries through investment in efficiency improvements and clean technologies.

## INVITATION TO READERS



wishes to extend an invitation to readers to submit news or relevant articles of interest in relation energy sector developments and in particular, sustainable energy development in their territories.

# Preparations are Underway for Staging of the First CARICOM ENERGY WEEK in November 2011



Maxine Nestor  
Regional Energy Policy Advisor

– by Maxine Nestor, Regional Energy Policy Advisor –

## ● CARICOM Member States to Stage Energy Week with National Events

CARICOM Member States are preparing to stage CARICOM Energy Week from 6 – 12 November 2011, with the implementation of a series of activities at a national level that target the general public, schools, and technical and skilled persons. The programme for CARICOM Energy Week will vary in the different Member States but will cover activities such as Sustainable Energy Exhibition, Symposium, Televised Panel Discussion, distribution of brochures, flyers and posters, televised documentary on sustainable energy, seminar, workshop, essay competition, debating competition, quiz, science and technology fair, and tours among others.

## ● Planning and Preparation

CARICOM Energy Week planning and preparation activities are being coordinated among Member States and development partners under the CARICOM Energy Programme. Member States are currently establishing Organizing Committees in their respective countries and developing their proposals for Energy Week together with the budget. In June 2011, the CARICOM Energy Unit hosted the First CARICOM Energy Week Coordination Dialogue

among Member States and Development Partners through an online meeting arrangement facilitated by the Latin American Energy Organization (OLADE). During this Meeting, Member States benefited from: a presentation on the Energy Awareness Week Guide developed under the CREDP/GIZ; guidance on how to organize Energy Week activities; and lessons learnt from Guyana's and Saint Lucia's previous experience in staging Energy Awareness Week.

Guyana emphasized the need for thorough planning, stakeholders' consultation, team work,

States is available under several Regional Sustainable Energy Initiatives that include an Energy Awareness Component. However, Member States were encouraged at the First Virtual Dialogue (held in June 2011) to consider options for the sustainability of CARICOM Energy Week activities in subsequent years, including sponsorship from the corporate community.

## ● Visual Identity and Themes for National Energy Week Events

National Energy Week activities within Member States will be staged under a common CARICOM Energy Week visual identity. It is proposed that

The staging of **CARICOM Energy Week** as an annual event is a decision taken at the 35th Special Meeting of the Council for Trade and Economic Development (COTED) on Energy held in Georgetown on 22-24 March 2011. CARICOM Energy Ministers also agreed that **CARICOM Energy Week** would be staged from 6-12 November 2011, and in subsequent years, during the second week of November each year.

The broad objective of the **CARICOM Energy Week** is to raise awareness in relation to energy in general. This event will also serve to convey the critical importance of energy to economic development, as well as, the important role that renewable energy, energy efficiency and conservation must play.

innovativeness and proactive approaches. Meanwhile, some of the challenges highlighted by Saint Lucia were prioritizing energy awareness week among the other competing activities, fitting activities into the school curriculum, sourcing funding and sponsorship for activities, ensuring that Energy Week remains relevant through creative approaches and being prepared for the unexpected.

## ● Funding to Support National Events

Funding to support 2011 Energy Week Activities in the various Member

several prototypes for a logo will be developed by mid-August and that the process for selection of a suitable logo will be one that involves the participation of the wider public in all Member States, possibility through online voting.

Member States will develop their individual theme for Energy Week 2011 that fits with the issues that are most important to them. National events will be built around their distinctive theme and concept.

# Update on the Caribbean Renewable Energy Capacity Support (CRECS) Project

– by Project Manager, Dr. Robert Stoddard –



Dr. Robert Stoddard  
Sustainable Energy Specialist,  
CARICOM Secretariat

## Introduction

The CARICOM Energy Programme has been implementing the Caribbean Renewable Energy Capacity Support (CRECS) Project funded by the European Union, since signing of the Contribution Agreement by the European Union and the CARICOM Secretariat in late November 2011.

The Project seeks to build on work done under the landmark Caribbean Renewable Energy Development Programme (CREDP) aimed at removing barriers to renewable energy development, viz, financing, information and awareness, capacity building and policy in the energy sector.

## The Key Elements of the CRECS Project are:

- (i) Addressing capacity barriers to increase renewable energy penetration in Member States; and
- (ii) Increased investment in various renewable energy enterprises among CARIFORUM countries.

## Update on Activities

- To date, five tenders have been launched. These tenders included the procurement of Consultants' services to: (i) develop model electricity and

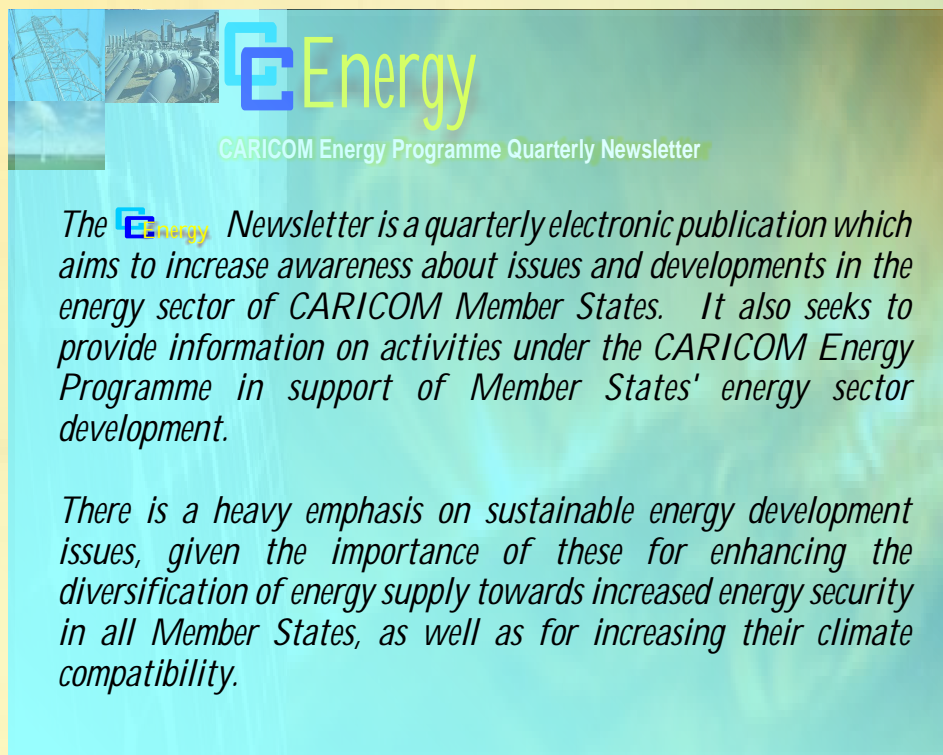
supply legislation; (ii) develop or amend national energy supply laws; and (iii) develop regulations under the Nevis Geothermal Resources Development Ordinance 2008. It is now recognised that energy awareness is a critical activity for sensitizing the Region to a number of important issues and developments with respect to renewable energy sources and options, conservation and efficiency, etc. Hence, a tender was also launched to engage the services of a Consultant to develop a Model Energy Awareness Programme. Most of these tenders failed on budgetary and technical grounds. Permission to relaunch the tenders has been sought from the European Union.

- In March 2011, a fact finding mission from the CARICOM Secretariat's Energy Unit visited Haiti following a visit to the Dominican Republic (DR) late last year. The visit to Haiti was

primarily to assess the energy situation and to establish a framework for support. On the other hand, the visit to the DR was to identify opportunities for South-South Cooperation in the field of energy.

- Under the CRECS, two major presentations were made to key stakeholders with respect to "Renewable Energy Financing" and "Sustainable Energy and Risk Financing" in Jamaica, May 2011, and Trinidad and Tobago, July 2011, respectively.

- The University of the West Indies was engaged in initial planning and scoping towards the provision of support for the development of a MSc. Programme in Renewable Energy and finalization of the development of a MSc. in RE Management for the University.



*The **Energy** Newsletter is a quarterly electronic publication which aims to increase awareness about issues and developments in the energy sector of CARICOM Member States. It also seeks to provide information on activities under the CARICOM Energy Programme in support of Member States' energy sector development.*

*There is a heavy emphasis on sustainable energy development issues, given the importance of these for enhancing the diversification of energy supply towards increased energy security in all Member States, as well as for increasing their climate compatibility.*

# Organisation of Eastern Caribbean States to Benefit from Sustainable Energy Technical Assistance from the Caribbean Development Bank

– by Leonard Deane –



Leonard Deane  
SETA Project Coordinator,  
OECS Secretariat

Member countries of the Organization of the Eastern Caribbean States (OECS)<sup>1</sup> will soon benefit from additional technical support to complement their on-going initiatives toward establishing a clearer path to a more sustainable energy future. The Caribbean Development Bank (CDB) has made grant funding in excess of US \$1.5 million available to the Secretariat to the OECS for the Sustainable Energy Technical Assistance (SETA) Project.

## Objectives and Outputs of SETA

The general objective of the SETA project is to “*provide the guiding framework and create an enabling environment to support the efficient and sustainable production and use of energy in the member countries of the OECS*”. In addition, the Project aims to develop the capability of the member countries to employ holistic approaches to energy management in support of the OECS’ objective of integration of economies, and coordination and harmonisation of policies of its member countries.

Specifically, SETA activities will deliver:

- an **OECS Sub-Regional Energy Efficiency Strategy** complemented by

**National Energy Efficiency Strategies and Action Plans** as part of an overall cost reduction programme;

- **model legislation including regulations and rules for energy management** in the OECS within the context of the OECS Economic Union that foster the implementation of initiatives for the efficient and sustainable production, and utilization of energy; and

- a **public education and awareness programme** that will address the knowledge, attitudes and practices of the general public within the OECS as it pertains to renewable energy and energy efficiency.

## Background to SETA

Sustainable energy has been identified as a priority thematic area by the OECS Ministers of Environment. Following the 12th Meeting of the Ministerial Environmental Policy Committee in June 2000, a mandate was given to the then OECS Natural Resources Management Unit to develop approaches for improving the performance of the energy sector of the OECS. In particular, the Ministers requested that the OECS Secretariat prepare a recommended policy and public awareness strategy on energy management for their consideration and adoption. Subsequently, at a Special Meeting on the Economy held in St. Kitts on October 10, 2002, the Heads of Government of the OECS member countries charged the OECS Secretariat to consider, among other things, “*a clear and strategic energy policy*” as part of a stabilization, stimulation and transformation package for the economies of the member countries of the OECS. The instructions were specifically aimed at

increasing the economic competitiveness of the member countries of the OECS.

## Importance of Energy to the Economic Competitiveness of the OECS

At present, member countries of the OECS are highly reliant on fossil fuels to supply almost all of their energy needs, albeit that over the past years there has been a slow but steady increase in the utilization of renewable energy technologies to supply energy needs for power generation. Rising oil prices have resulted in the drain of foreign exchange reserves for fuel-related imports, consumer price inflation, as well as increased production costs for industries with high energy use. This translates to consequential negative impact on competitiveness. Additionally, concerns about climate change and energy security have resulted in intensified efforts to identify alternatives to fossil fuels and ways to efficiently produce and use energy.

The general consensus is that the path towards economic competitiveness, poverty alleviation, and economic resilience for the member countries of the OECS must be informed by an energy programme that improves sector efficiency, reduces the burden of energy costs on economies, diversifies fuel sources, leverages private capital and safeguards the environment. This will require the establishment of an enabling environment in the OECS Sub-Region to encourage investment in these alternatives, coupled with a change in the mindset of energy consumers.

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<sup>1</sup>OECS comprises the six independent states of Antigua and Barbuda, Commonwealth of Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, and the British Overseas Territories of Anguilla, British Virgin Islands and Montserrat

# Energy News

## New Ministers with Responsibility for Energy in Jamaica and Trinidad and Tobago

In June 2011, both Jamaica and Trinidad and Tobago appointed new Ministers with responsibility for Energy following Cabinet re-organization in these countries. The new Minister of Energy and Mining in Jamaica is the Honourable Clive Mullings, who previously occupied this post up to April 2009. He has indicated that, inter alia, one of his key objectives is the implementation of a LNG fuel supply option as efficiently and quickly as possible, inline with Government's policy.



Hon. Clive Mullings  
Minister of Energy and Mining, Jamaica


The new Minister of Energy and Energy Affairs in Trinidad and Tobago is Senator the Honourable Kevin Ramnarine. Minister Ramnarine, a former Parliamentary Secretary in the Ministry of Energy, has indicated that his first priority is to increase the level of oil production, while the second is to attract foreign direct investment: “We need to get the downstream industries moving”.



Senator the Hon. Kevin C. Ramnarine  
Minister of Energy and Energy Affairs,  
Trinidad and Tobago

Over the last decade, oil production in

Trinidad and Tobago has fallen from approximately 140,000 barrels per day (bpd) to current levels of approximately 95,000 bpd. Further, oil and natural gas remain critical to the country's economy contributing 45 percent to its GDP and 60 percent of its foreign exchange earnings.

 congratulates Ministers Mullings and Ramnarine on their respective appointments and wishes them success in the discharge of their mandates.

## OLADE AND CARICOM SECRETARIAT ENGAGE IN MEETING ON COOPERATION



On Friday, 10 June 2011, the CARICOM Secretariat and the Latin American Energy Organization (OLADE) hosted a virtual (online) meeting to further advance general cooperation and collaboration on a range of activities. The Meeting was attended by the team from the CARICOM Energy Unit lead by Programme Manager, Energy, Joseph Williams. Attending the Meeting from OLADE were Mr. Fernando Ferreira, Director of Integration, Ms.

Alicia Vallejo, Training Coordinator, Mr. Gabriel Hernandez, Information Coordinator, and Mr. Jorge Asturias, Coordinator Sub-regional Office.

The objectives of the Meeting were to share and exchange information on each organization's energy programmes and to identify specific areas for collaboration and support. Key outcomes of the meeting include: i) OLADE's offer to facilitate training to energy sector officials of

CARICOM Member States; ii) the decision to explore the OLADE Energy Balance and other tools for use as standard tools within the Community; and iii) the CARICOM Secretariat's indicative willingness to support the promotion of OLADE's upcoming Energy Balance and Energy Information Systems Workshops in its Member States. Training Sessions are scheduled for 11-15 July in Guyana, 25-29 July in Belize and 1-5 August in Suriname.

# Energy Unit's Mission to Haiti under CRECS

An important component of the Caribbean Renewable Energy Capacity Support (CRECS) Project funded by the European Union (EU) and being executed by the CARICOM Secretariat is the provision of technical assistance for energy policy and strategy development, as well as capacity building in Haiti. This has taken on significant importance in light of the current re-construction efforts in the aftermath of the earthquake in 2010.

L-R: Dr. Robert Stoddard (*CARICOM Secretariat*), Dr. Rene Jean-Jumeau (*Advisor on Energy*), Herve Pierre-Louis (*Technical Director of EDH*), Isidore Priso Kotta (*Consultant, Delegate Director for Planning*), Garry Jean (*Inspector General of EDH*), Myk Mannon (*Consultant, Delegate Technical Director*).



A fact-finding mission was conducted by Programme Manager Energy, Joseph Williams and Sustainable Energy Specialist, Dr. Robert Stoddard of CARICOM Secretariat, at end of March 2011, where engagements were made with all key players in the energy sector. The CARICOM Energy Unit Mission also engaged with the Inter-American Development Bank (IDB) during the visit to Haiti and with the Office of CARICOM Special Envoy to Haiti in May 2011 during a separate visit to Jamaica.



Dr. Rene Jean-Jumeau makes point to the Hon. Jacques Gabriel, Minister responsible for Energy and Joseph Williams, Programme Manager, Energy, CARICOM Secretariat

In addition to the broader support for strategy development, some areas for short term technical assistance and capacity building in Haiti were also identified. Capacity building and advisory support in resource assessment and project development were identified as urgent matters for support.

In general, the objectives of the Mission were achieved.



## Organisation of Eastern Caribbean States to Benefit ...

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### Implementation Mechanism and Funding for SETA

SETA will be executed through the engagement of a number of consultancy services over a 35-month period until 2014. The process of procuring consultants has commenced. It is expected that the engagement of consultants for some components of the SETA project will take place in the third quarter of 2011.

The Environment and Sustainable Development Unit of the OECS

Secretariat will supervise implementation of the SETA's activities through a Project Coordinator who, among other things, will have responsibility for facilitating the required consultations and participation in each member country.

The project is funded by a technical assistance grant from the CDB and a contribution from the OECS Secretariat.

# Meeting with CROSQ: Sustainable Energy & Standards

A meeting to facilitate the exchange of information on the role of standards bodies in the Region in area of energy efficiency was convened among key partners and the CARICOM Regional Organisation for Standards and Quality (CROSQ) in Christ Church, Barbados on 27 May 2011.

In attendance were representatives of the Bureaus of Standards from Antigua and Barbuda, Barbados, Dominica, Guyana, Grenada, Haiti, St. Kitts and Nevis, St. Vincent and the Grenadines, as well as, executives of CROSQ.



Mrs. Diane Lalla-Rodrigues, *Chairman of CROSQ* &  
Ms. Carolina Pena, *Manager, OAS Regional Coordinating Unit*

*Caribbean on Energy Efficiency Standards and Labeling Schemes*, especially as it relates to existing activities under the CSEP Project being executed by OAS Secretariat, as

Sustainable Roadmap and Strategy (C-SERMS) being pursued by CARICOM Secretariat, especially in the building sector. An overview of the institutional capacities within the NSOs was



*Section of Audience: Directors & Senior Officials of Bureaus of Standards in CARICOM*

The lead coordinating role was carried out by CSEP/OAS Project in conjunction with the Energy Programme of the CARICOM Secretariat. Other key partners were the CREDP/GIZ Project and the SETA/OECS Project. The meeting was convened to take advantage of the presence of senior officials of Regional and National Standards Organizations (NSOs) who were in Barbados for their Council Meeting.

The meeting facilitated dialogue on *Regional Cooperation in the*

well as, nascent energy efficiency standards and appliance labeling projects to be pursued by the CARICOM and OECS Secretariats, and the SETA Project.

The forum provided an opportunity for articulation of the relevant elements of the CARICOM Energy Programme. It was identified that CROSQ and NSOs have a key role to play in the development and implementation of the Regional Energy Efficiency Strategy under the Caribbean

provided, as well as their involvement in sustainable energy activities. A key gap identified was that in general (with few exceptions) there was little or no link between the work of NSOs and that of the energy units in the various Member States, especially as it relates to sustainable energy development. It was recommended that the CARICOM Secretariat should seek to facilitate the development of stronger linkages between the programmes of NSOs and the work programme of Energy Units/Energy Ministries in Member

# Drilling of Three Exploratory Geothermal Wells in the Roseau Valley to Commence Late July 2011



*Signing Ceremony*

The drilling of exploratory geothermal wells in the Roseau Valley is expected to commence at the end of July this year.

The contract for the over 4.5 million Euros Project was signed on Wednesday, 6 April 2011, during a

ceremony at the Public Service Training Centre in Roseau, Dominica. The contract was awarded to the Iceland Drilling Company and is being funded by the Agence Francaise de Development, the European Union and the Government of Dominica.

Project Coordinator, Jason Timothy, explained that the long term objective is to confirm the nature and extent of the potential geothermal resource at various sites within the Wotten Waven area and to determine the capacity of wells for sustainable commercial exploitation in generating electric power.

VISIT [cipore.org](http://cipore.org) for Information on Renewable Energy developments and happenings in the Caribbean including a listing of upcoming Sustainable Energy events

## World Bank Loan for the Establishment of Eastern Caribbean Energy Regulatory Authority (ECERA) Approved

The World Bank has approved two zero-interest loans totaling US\$5.6 million to facilitate establishment of the Eastern Caribbean Energy Regulatory Authority (ECERA). The loans are repayable in 35 years, including a 10-year grace period.

As a regional electricity sector regulator, ECERA aims to improve electricity service delivery and diversify sources of energy generation, including renewables, across the Organization of Eastern Caribbean States (OECS) countries. Importantly, ECERA will increase the capacity of OECS countries to

implement regional arrangements for electricity supply.

The loan will fund activities to set up and operationalise ECERA. These activities include carrying out the legal and consultative process leading to the formulation and ratification of the ECERA treaty, defining options for the ECERA self-financing mechanism, reviewing tariffs and examining incentive mechanisms to promote renewable energy. The loan will also fund ECERA's initial three years of operation including its day-to-day operations and execution of core

regulatory tasks, such as, tariff and investment plan reviews, and the definition of a regional licensing framework for electricity market participants.

The first phase of the ECERA program will be launched with Grenada and Saint Lucia as participating countries. At the 35<sup>th</sup> Special COTED on Energy held during the first quarter of this year, Antigua and Barbuda had signaled its intent to join ECERA. Other OECS members have expressed interest in joining ECERA at a later

# NATURAL GAS BRIEF

## Changing Natural Gas Landscape and the Caribbean

The global landscape for natural gas has rapidly changed over the last few years and the change continues. Just a few years ago, the US was a modest Liquefied Natural Gas (LNG) importer, at least in relation to its overall consumption, and it was widely expected that American LNG imports would grow tremendously as a result of the country's declining domestic gas production. However, the current unconventional gas revolution is literally turning the situation on the supply side on its head. Moreover, the recession has led to lower demand for LNG. The US is now expected to be largely self-sufficient in terms of its natural gas supply for the coming decades.

The revolution had its genesis in the development of new drilling technologies, viz, hydraulic fracturing (fracking) and horizontal drilling which have allowed the recovery of gas from sand shales. The economic success of shale gas (unconventional gas) in the United States since 2000 has led to a rapid development of shale gas in Canada, and more recently, has spurred interest in shale gas possibilities in Europe, Asia and Australia.

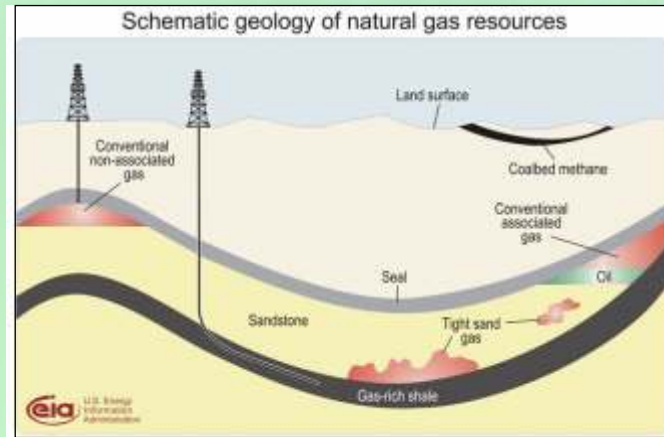
The boom in American shale gas (which now represents 23% of that country's gas production, up from 4% five years ago) has kept the price low in America, inspired exploration for similar fields elsewhere and allowed many LNG cargoes that were supposed to be regasified at American terminals to seek other markets.

Over the past five years, global production capacity for LNG increased by 58% and its share of the international gas trade has risen from 23% to 31%, helping the world to shift towards more integrated and flexible markets. This increased supply (especially in USA) and lower prices

spell good and bad respectively for some Caribbean countries. Firstly, Trinidad and Tobago has been the largest supplier of LNG to the USA for many years. Countries pursuing or contemplating natural gas options do so to lower their energy costs, but

five power plants.

**Jamaica** is pursuing the introduction of LNG for electricity production and therefore welcomes the increasing abundance in natural gas on the global market at generally depressed prices.



Many proponents of the coal option have always pointed to the oil-gas price indexation as a basis for concern that natural gas prices would rise in the future, compared to coal which has a long history of flat and stable prices. However, with the abundance of gas on the global market, and

natural gas is also a cleaner fossil fuel with significantly lower global warming potential than petroleum.

with LNG becoming the main tradable form, there seems to be de-coupling of the price trend in gas and oil as more and more the market seems to be increasingly flexible, so much so, that gas prices have remained relatively low despite surges in oil prices.

**The Dominican Republic**, (a member of CARIFORUM and market for LNG from Trinidad and Tobago) earlier this year, saw its largest independent power producer, Empresa Generadora de Electricidad Haina (EGE Haina), and largest generator, Compañía de Electricidad de San Pedro de Macorís (CESPM), sign Memoranda of Understanding (MOUs) with Cheniere Energy to supply up to 0.6 million tonnes per annum of liquefied natural gas to that market beginning in 2015.

**Other CARICOM Countries:** Electric utilities in many OECs countries, urged by leading gen-set manufacturers, are considering supplying the electricity sector from LNG. The big challenges have been the small size of demand in the various islands and the logistics associated with delivering small shipments of 15,000-20,000 cubic meters compared to traditional cargoes of above 160,000 cubic meters.

**Similarly, Puerto Rico** (US territory) which is another regional market for LNG from Trinidad and Tobago, has signed a contract with a US-based LNG specialist, Excelerate Energy, to provide Puerto Rico's electricity firm with a floating regasification and storage unit (FSRU). This is an initial step in the island state's widespread transformation to natural gas which includes ambitious LNG plans, including a proposed 92-mile (148km) pipeline project that will underpin the shift from fuel oil to natural gas at its

**In Trinidad and Tobago**, the lower priced gas especially on the North American market may be providing a challenge, as gas suppliers want higher prices for their gas, while the downstream petrochemical manufacturers need low-priced gas if they are to compete in North America and the Region. Some analysts are of

# UPCOMING EVENTS

1. CARILEC Engineers Conference, World Trade Center, Curacao, 25-27 July 2011
2. Meeting of Senior Energy Officials via Video Conference to Review the Draft CARICOM Energy Policy, 7 September 2011
3. CARILEC Renewable Energy Forum 2011, St. Thomas, 20-21 September 2011
4. Regional Workshop on Research, Development and Capacity Building at the University Level to Support Renewable Energy Development in the Caribbean, Suriname, 28-29 September 2011
5. 11<sup>th</sup> Annual Energy Caribbean 2011 Conference, Hilton Hotel, Trinidad & Tobago, 4-5 October 2011
6. International 100% Renewable Energy Conference and Exhibition, IRENEC 2011, Maltepe Türkan Saylan Cultural Center, Turkey, 6-8 October 2011.
7. Caribbean Renewable Energy Forum 2011, Hilton Barbados Hotel, Barbados, 12-14 October 2011
8. RE Investors Forum – Margins of CREF, Hilton Barbados Hotel, Barbados, 12-14 October 2011
9. 9<sup>th</sup> OOCUR Annual Conference, Accra Beach Hotel, Barbados, 2-4 November 2011
10. SATIS 2011, Barbados, 8-11 November 2011
11. CARICOM Energy Week, 6-12 November 2011

## NATURAL GAS BRIEF

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the opinion that lower gas prices in North America may be attracting investors to re-establish petrochemical plants there, thereby providing a new source of competition for Trinidad and Tobago. This, they opine, has implications for the LNG market, as seen from the signalled export from the USA to the DR and Puerto Rico, which are markets for LNG from Trinidad and Tobago.

The fact that natural gas production in Trinidad and Tobago exceeded petroleum production since 1996 (there has been significant decline in

petroleum production and significant expansion in natural gas production over the years) coupled with relatively lower prices for gas in global market, means that Trinidad and Tobago may not be deriving maximum benefits from prevailing higher world oil prices. Some commentators opine that this has given urgency for increased petroleum production, with some players arguing strongly that the Government should encourage exploration of heavy oils and tar sands. Exploration of heavy oils is considered to have additional potential negative environmental impacts.

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