



"SPILL-OVERS" FROM THE BP GULF OF MEXICO DISASTER TO CARICOM'S ENERGY SECTOR

The end of June 2010 marked day 71 of the Gulf of Mexico oil spill that began on 20 April after an explosion and a fire on the



NASA image of the Gulf on May 24, 2010. <http://www.nasa.gov>

drilling rig Deepwater Horizon, owned by Transocean Ltd. and leased by BP PLC. That blast killed 11 workers and since then

(until the time of writing), oil has been pouring into the Gulf from a blown-out undersea well at rate of 35,000 to 60,000 barrels per day. This could be as much as a quarter of the total daily oil consumption of CARICOM countries. The total volume of oil deposited to the end of June could possibly supply the energy requirements of Guyana, St. Kitts and Nevis, and St. Vincent and the Grenadines for an entire year.

This oil spill is now the largest in the United States' history and could become the worst in world history. The environmental damage will take years to remedy. Even more frightening for the Caribbean, is the prediction in June 2010 by the Caribbean Disaster and Emergency Management Agency (CDEMA) that some Caribbean countries are at risk of being affected by oil deposits being washed upon their shores, with negative impacts for their ecosystems and fragile tourist industries.



Jeremy Collymore, Head of CDEMA

writing in *The New Yorker* earlier this year, noted that, "*the Age of Tough Oil has clearly begun*", citing that the United States' largest single source of imported oil is expected to be the Canadian tar sands. Oil from the tar sands comes in what is essentially a solid form, it has to be either strip-mined (a process that leaves behind a devastated landscape) or melted out of the earth using vast quantities of natural gas. According to Caribbean energy consultant Herbert Samuel: "*BP's well was being drilled at what are now admitted to be 'unprecedented' depths (well-head 5000 feet below sea level), where mishaps would clearly be more difficult to prevent in the first place and even more difficult to be dealt with after the fact.*"

Possible Implications of the Oil Spill for CARICOM Energy Sector

Some Caribbean countries in close proximity to the disaster are currently making preparations to deal with any potential damage that may be caused by oil being deposited on their shores. It would also be timely for countries of the Region to revisit the relevant treaties and regulations related to the handling of petroleum/oil accidents. Further, the Spill could have direct implications for

Age of Tough Oil

In addition to fossil fuel consumption being the key cause of the Climate Change problem, this disaster has further highlighted another problem associated with the high reliance on fossil fuel (in particular oil extraction), viz, the threat it poses to the health of local ecosystems. Some analysts have argued that this threat is likely to increase in the future, because globally it is becoming increasingly difficult to extract oil, as onshore fields are largely depleted and new explorations migrate to deeper waters offshore.

In fact many analysts have heralded that the days of 'easy oil' are over and that the world has now approached the "Age of Tough Oil" (a term attributed to Michael Klare, a professor at Hampshire College). To reinforce the point Elizabeth Kolbert

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Opportunities & Developments - CARICOM Energy Sector

By Programme Manager, Energy



Joseph Williams, Manager
CARICOM Energy Programme

Energy & Climate Partnership of the Americas (ECPA)

President Obama, in June 2009, at the Summit of The Americas held in Trinidad and Tobago, launched the Energy & Climate Partnership of the Americas (ECPA). As a further development under ECPA, the First Hemispheric Energy Ministerial was held on 15-16 April 2010 in Washington DC. This meeting was coordinated and hosted by the US Department of State, US Department of Energy and the Organization of American States (OAS). This feature will highlight some of the developments and outcomes of this Meeting, as it is considered that this Initiative holds potential benefits for the Community.

Eleven CARICOM countries were represented at the Meetings with six Ministers with responsibility for energy in attendance. Present were the Energy Ministers from Dominica, Haiti, Jamaica, St. Kitts and Nevis, St. Vincent and the Grenadines and Suriname. The other five countries: Antigua and Barbuda, the Bahamas, Belize, Grenada, and Trinidad and Tobago were represented by Officials from the Ministry responsible for Energy. The CARICOM Secretariat was represented by the Assistant Secretary General, Trade and Economic Integration and the Manager, Energy Programme. In general, the CARICOM Ministers in attendance welcomed the ECPA initiative but also noted the importance of building on existing energy initiatives in the Region.

The US Secretary of Energy Dr. Steven Chu and Secretary of State Mrs. Hillary Clinton were two of the Key Note Speakers for this Ministerial.

Secretary of Energy Dr. Steven Chu highlighted the main elements of ECPA as a partnership: i) for accelerating clean energy; ii) for advancing energy

security; iii) for reducing energy poverty; iv) which provides a Flexible Framework for projects (projects can be bilateral, multilateral, regional); and v) which provides for broad participation (governments, industry, non-governmental organizations and Inter-American organizations). He noted that

energy access and energy security and serve as a knowledge hub to the various renewable energy centers that are currently being developed.



Some CARICOM Energy Ministers & Officials (front row) at the
First Hemispheric Energy Ministerial, April 16 2010

the principles of the ECPA Partnership are based on equality of partners, engagement based on mutual respect, common interests and shared values.

Secretary Chu also announced the establishment of an Energy Innovation Centre at the Inter-American Development Bank (IDB) headquarters in Washington, under ECPA. The Energy Innovation Centre (called ENE-Innovation Center) would form a regional incubator for project implementation, offering technical assistance and capacity building programs. Specifically, the ENE-Innovation Center would: Support knowledge dissemination, provide technical assistance, produce comprehensive briefings, identify potential non-conventional renewable projects and identify innovative funding mechanisms. This will also be a center of excellence for non-conventional renewable energy, energy efficiency,

Secretary of State Hillary Clinton reiterated the US Government's commitment to partnership and emphasized that the ECPA partnership was not intended to impose requirements or regulations but to create a forum and framework to share best practices, cultivate new collaborations, promote indigenous solutions, deepen regional ties, and foster local and national leadership. She also announced six initiatives under ECPA. Some of the initiatives particularly relevant to CARICOM are that the United States would:

- a. provide a grant to the OAS to lend technical and legal expertise to any Caribbean country seeking to help get clean energy projects off the ground;
- b. support energy and environmental security in Central America;

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c. work to advance sustainable biomass energy;

d. work through the Peace Corps to advance renewable energy efforts: more than 2,000 Peace Corps volunteers would be trained in RE & EE and would share their training with communities and help implement those practices;

e. provide three top scientists to serve as ECPA fellows, who would be available to ECPA participating countries consultants and advisors or educators, viz:

i. Dr. Daniel Kammen, a professor of energy at the University of California at Berkeley,

ii. Dr. Ruth DeFries, a professor of sustainable development at Columbia University

iii. Dr. Gerry Galloway, an engineering professor at the University of Maryland, whose focus is on the management of water resources and the impact of climate change on water systems.

f. promote the use of shale gas. She observed that this is controversial in some places, but opined that natural gas is the cleanest fossil fuel available for power generation today, and a number of countries in the Americas may have shale gas resources. If developed, shale gas could make an important contribution to our Region's energy supply, just as it does now for the United States.

In addition to the benefits outlined above which may be tapped by the Community, two significant and possibly early harvest opportunities for support under the EPCA were identified as:

i) The Establishment of a Renewable Energy Centre in Trinidad and Tobago: The need for a Regional Renewable Energy Centre as a mechanism for expediting the implementation of RE has been advocated by many entities and actors in the Community for some time.

ii) Support for further exploration of the idea of inter-connection of energy systems in the Caribbean Region.

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Caribbean energy sector in the following ways:

1. Slowing of investment in ongoing deep-water petroleum exploration:

Some CARICOM Member States are currently exploring for petroleum in deep water offshore regions. It is likely that with the prevailing climate (in wake of the disaster), the currently open exploration bid rounds (e.g. in Jamaica) could be negatively affected as investors may be hesitant to pursue such developments at this time. Further, it is anticipated that there will be demands for the further tightening of environmental and safety standards which will likely result in increased front-end costs, thus making upstream investment for hydro-carbon exploration more difficult to secure.

According to Badr Jafar, a leading Gulf Cooperation Council (GCC) oil official, and CEO of UAE-based Crescent Petroleum, *“the repercussions of the spill for the industry are going to be felt for many years to come. One unquestionable outcome is that the whole oil and gas industry will now be under great scrutiny and will be held, justifiably, to the highest possible safety and environmental standards. Deepwater drilling for oil and gas was likely to face not only more regulation but also the threat of reduced or*

delayed investment.”

2. Increasing the drive to pursue sustainable energy development:

Any dampening of the hydrocarbon exploration drive will mean that the prospects of some CARICOM Member States increasing their energy security though petroleum and gas finds would have to be pushed back. This could provide an increased impetus for oil-import dependent CARICOM countries to ramp up efforts in their quest to reduce their dependence on oil through the development of their indigenous renewable energy resources.

3. CARICOM countries could be impacted by increased price of oil on the world market:

Although considered quite far-fetched by many analysts, there remains some speculation that the Spill could lead to the tightening of oil supplies in the world market resulting from a reduction in investment in deepwater offshore drilling (which has greatest opportunities) coinciding with a potential increase in global energy demand resulting from the rebounding of the world economy. Some countries of the GCC are already positioning themselves to take advantage of this possibility by focusing on onshore and shallow water production.

In the end, it may be successfully argued that the Oil Spill is not so much a failure of technology as it is a failure of regulatory oversight and the lack of enforcement of safety procedures. It has been observed that BP was operating the well without a remote control shut-off switch used by some oil companies as a last resort protection against underwater spills. Use of the device, called an acoustic trigger, is mandatory in other major oil-producing countries such as Brazil and Norway. Arguably, the device could have prevented the spill and therefore the cause of the accident. In this regard, the accident provides a lesson for the entire energy industry including sustainable energy development.

Although renewable energy developments are generally environmentally benign, safety and environmental risks associated with the introduction of all new energy technologies remain. Therefore, although it is unlikely that any accident involving renewable energy technologies would ever have the scale and intensity of impact of the current oil spill, the CARICOM energy sector would do well to draw from this incident, the importance of ensuring that proper regulatory frameworks are established as the Region pursues the development of the various new energy technologies that are relevant to it.

CIPORE

Caribbean Information Platform on Renewable Energy (CIPORE) is the 'one stop point' for Renewable Energy Information in the Caribbean. Visit CIPORE on line at: www.cipore.org

MINISTERS WITH RESPONSIBILITY FOR ENERGY – Part 3

Interview with the Honourable Rayburn Blackmoore, Minister of Public Works, Energy and Ports - Dominica



Honourable Rayburn Blackmoore, Minister of Public Works, Energy and Ports, Dominica

The Honourable Rayburn Blackmoore was sworn in as Minister of Public Works, Energy and Ports, Dominica on January 4 2010, as part of the new Cabinet. This feature will highlight a brief interview which **E Energy** conducted with the Honourable Minister Blackmoore.

E Energy: What is your vision for the energy sector in Dominica?

Minister: As Minister for Energy, I envisage an energy sector governed by a robust and aggressive regulating authority that will engender the utilization of indigenous renewable energy resources to provide clean and affordable electricity to all Dominicans, while at the same time exporting to our neighbours.

E Energy: How important is sustainable energy development to Dominica?

Minister: Sustainable energy development has implications for all aspects of the environment in Dominica, from the physical environment to the social environment. Dominica has a

growing demand for energy. Our domestic/residential market is growing and becoming more sophisticated and demanding, while the commercial sector is expanding. The cost of energy, particularly electricity cost, is one of the highest in the region. Renewable energy is poised to replace the dependence on fossil fuel, significantly reduce our energy costs, while providing the additional opportunity for an improved balance of trade through export.

Studies have concluded that geothermal, hydro, solar, and wind are the preferred uses of renewable energy technologies in Dominica. Government has decided that Renewable Energy Technologies will be pursued in an order of priority which ranks geothermal as number one, followed by hydro, solar, and wind. Technical research and cost benefit analyses will be conducted to determine the potential and viability of each of these sources. We have started that process and results are encouraging, to say the least.

In terms of Energy Efficiency and Energy Conservation, Dominica will seek to predicate its economic growth on the adoption of best practices in those areas, and we will work to implement such energy efficiency and conservation measures across the public and private sectors as are practical in the context of the Dominican society and economy.

E Energy: It has been established that Dominica has significant geothermal energy potential, what are the estimated development plan and schedule for geothermal energy in Dominica?

Minister: Dominica has a significant geothermal energy resources potential. Government is pursuing the development of geothermal energy as the most efficient and most readily available source of renewable energy for Dominica. This will form the basis for future national development. Additionally, developing the capacity to export electricity to the

neighbouring islands of Guadeloupe and Martinique will provide a source of significant foreign exchange earnings.

The Government of Dominica is currently leading the development of the Wotten Waven Geothermal Resources Area project to provide generation capacity in excess of 100 Mega Watts of non-carbon based electricity. We have confirmed the existence of the resource. We are now preparing to do test drilling to prove the quality and quantity of the resource, and to undertake the feasibility, economic, environmental, and legal studies necessary to advance the project.

In 2008, Government issued a licence to a private company for exploration and exploitation in the Soufriere geothermal resources area. My Ministry has received the work programme for this project, and we are providing all the necessary assistance to support their efforts.

E Energy: How important is the regional approach for advancing the energy sector development

Minister: Because of the relationship that Dominica enjoys with all of the other Caribbean nations, the Government of Dominica will work towards the implementation of regional approaches in the energy sector, which will lead to greater efficiency and cost savings. This can include the joint procurement and supply of fuels for example, imposition of harmonized legislation and the establishment of common regulatory institutions. We are grateful to CARICOM, the OAS, the Regional Councils of Guadeloupe and Martinique, the European Union, the Agence Francaise de Developpement, and the German Technical Assistance (GTZ) for all of their support and assistance, and particularly for providing funding and other resources, and to the European Investment Bank (EIB), which has expressed interest in providing financial support to advance the development of our geothermal resources.



Featured Personality of the Quarter – Dr. Raymond Marcio Wright

Dr. Raymond Wright is undoubtedly a leading authority on Geology in Jamaica but is also widely known for his expertise and contribution to the energy sector including renewable energy development in Jamaica. He is a trained geologist and



Dr. Raymond Wright

former Commissioner of Mines and Geology. Dr. Wright holds a PhD from Stanford University, a MPhil from the University of London, a MSc from University College, London University and a BSc from Durham University.

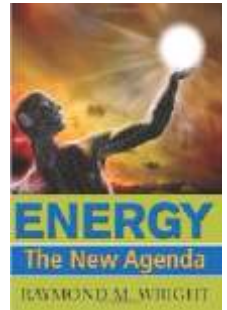
This former Group Managing Director of the Petroleum Corporation of Jamaica has experience and expertise that spans a wide range of energy matters. He has served as a consultant on energy matters and policy for a number of multilateral and bilateral agencies on most continents. In addition to his initiatives for the exploration for fossil fuels, he played a leading role in examining renewable energy sources, such as hydropower, ocean thermal energy conversion (OTEC) and wind, while assisting in developing the responsibility of the Petroleum Corporation of Jamaica in the management of energy use in Jamaica. It was under his leadership and unrelenting efforts that the **20 MW Wigton Wind Farm** located in Manchester, Jamaica, was developed and commissioned in 2004. This wind farm is the first of its kind and scale in CARICOM, and based on its performance over the years, has served as a very good stimulus for other CARICOM countries to

begin to explore the implementation of wind energy technology.

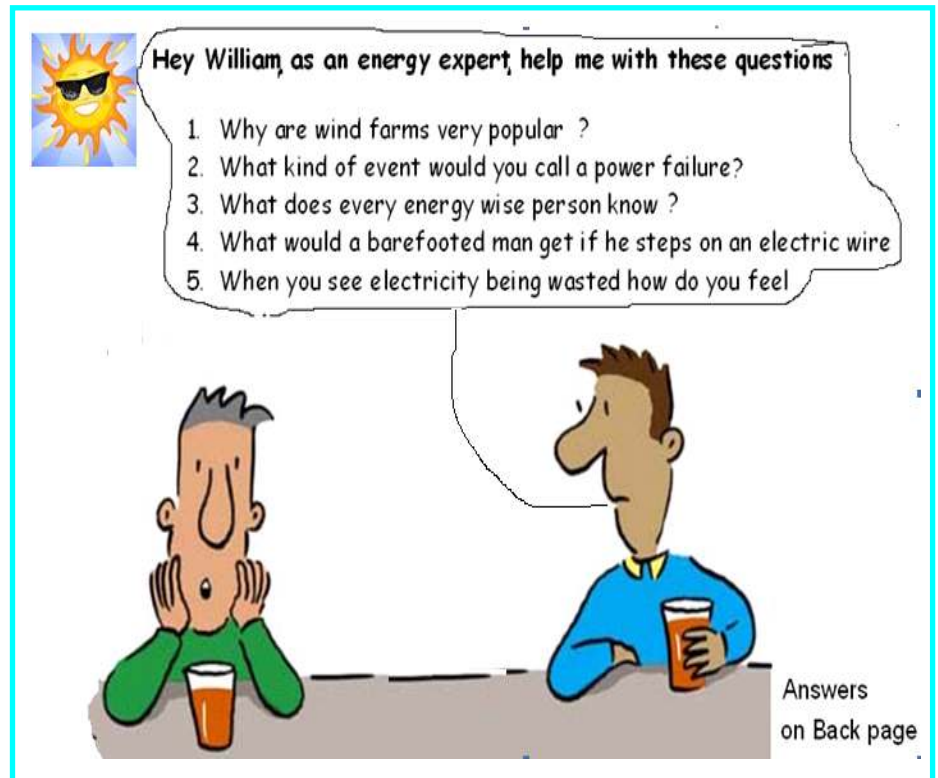
Although he has retired for sometime from his post as Group Managing Director, he still serves the Petroleum Corporation of Jamaica, advising on energy matters and leads its oil and gas exploration programme.

Dr. Wright has received several awards, including the Commander of the Order of Distinction (CD) conferred in 1989 and the Chubb Award for Excellence from the Geological Society of Jamaica in 1993. At the 2002 World Renewable Energy Congress in Germany, he was awarded the accolade of Pioneer in Renewable Energy. His most recent awards are the inaugural CARICOM Science Award and Medal in 2006 for his dedication to developing the area of Earth Science in the Caribbean, and the Jamaican National Medal for Science and Technology (2008). He has served as a Member of the United Nations Committee on Energy and Natural Resources, and as Chairman and Organiser of twelve international Conferences.

In addition to publishing over 120 professional papers focusing on petroleum exploration, renewable energy, environmental geology, energy and resource policy, micropaleontology, biostratigraphy and seabed mining, Dr. Wright has also published the book, *Jamaica's Energy – “Old Prospects New Resources”*, and co-authored with Professor Edward Robinson, the book “Biostratigraphy of Jamaica” published as Memoir 182 of the Geological Society of America. His latest publication is entitled “**Energy – The New Agenda**”. The book covers both conventional and renewable energy technologies together with methodologies for mitigating climate change.



Well done Dr. Wright!!



Is Net Metering an Important Policy Instrument to Foster Increased Renewable Energy Contribution in the Caribbean?

By Maxine Nestor, Regional Energy Policy Advisor



Ms. Maxine Nestor
Regional Energy Policy Advisor

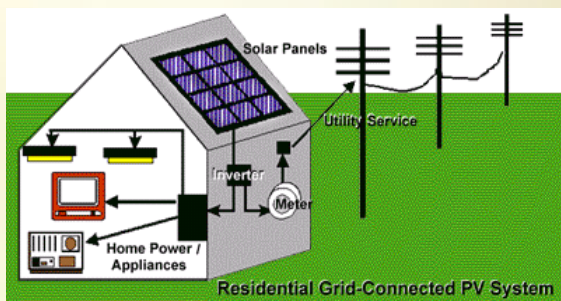
In the last **E**Energy publication I discussed the Feed-in-Tariff (FIT) policy support mechanism. Let us now turn our attention to NET METERING by asking and answering a few simple questions:

What is Net Metering?

Net metering is an effective policy driven by electric utilities to encourage the establishment of small scale renewable energy facilities (particularly wind and solar systems) at the domestic and commercial levels by utility-connected consumers. This is a customer-based renewable energy incentive.

How does Net Metering work?

Where the renewable energy (RE) facility connected to a home or business generates more electricity than is consumed in the



building, the excess electricity is sent into the utility's distribution grid and supplied to other customers. This causes the electric kilowatt-hour meter attached to the RE operator's premises to spin backwards essentially registering 'negative' electricity consumption and in effect creating a 'bank' for energy produced. However, when the RE operator consumes more electricity than is being produced by the RE facility, the kilowatt-hour meter spins forward (in the normal direction). Usually the same meter is designed to register the flow of electricity in either direction. The consumer (RE operator) is then credited at the end of the billing period (usually a month or one year as applicable) for any 'net' consumption or production of electricity. Given that a single meter is used to measure the in- and out- flow, the full retail electricity rate is paid to the consumer by the utility for any net 'excess' electricity produced and supplied to the distribution grid. Where the consumer uses more electricity than

generated from the RE facility, only the 'net' difference is paid to the utility.

Has Net Metering been adopted by any utility in the Caribbean?

Several utilities in the Caribbean have made moves to implement net-metering policies, but one could ask, "Are these net metering policies in reality?" Let's examine the 'Guidelines for the Addition of Generating Capacity to the Public Electricity Supply System' issued in June 2006 by the Office of Utilities Regulation in Jamaica. Those guidelines unequivocally speak to 'net billing' and not 'net metering'. The guidelines provide for small commercial and residential facilities up to 100 kW that generate RE from intermittent sources (e.g. wind, solar, hydro) to be connected to the grid to supply excess energy or utilize supplementary power under a net billing arrangement.

The features of net billing which differentiates it from net metering are:

- (i) the need for installation of two electric kilowatt-hour meters on the premises in a net billing arrangement – one to measure the electricity consumed from the grid and the other to measure any excess electricity supplied to the grid; and
- (ii) The owner of the RE facilities is not compensated for the excess electricity at the full retail tariff but at a reduced rate based on the 'avoided cost' principle.

It should be noted that in Jamaica, the RE operators receives a premium of 15% above the avoided cost.

Many analysts in the energy field consider that the net billing policy does not provide sufficient incentive to attract more decentralized RE operators and have called on the authorities to replace the net billing policy in Jamaica with full net metering policy. Under the net metering arrangement, the full retail price paid by the utility for electricity supplied by the RE generator includes transmission distribution and other administrative overhead costs that are typically included in the utility's retail price. A net metering policy in any CARICOM country would

need to address the issue of how the utility will recover the higher costs paid as part of the net metering tariff. One school of thought is to spread this cost over the entire customer base in the rate.

Similarly, the Barbados Light & Power (BLP) recently approved guidelines for Grid Interconnection of Renewable Generation Systems which provide for net billing and not net metering under a two year pilot programme. RE generation is limited to 1% of BLP system peak demand and maximum aggregate capacity of 5 kW per domestic RE facility and 50 kW per any other facility. In addition, operators are required to submit, inter alia a certificate for general liability insurance with a minimum coverage of B\$100,000 for RE facilities up to 5 kW and B\$500,000 for RE facilities greater than 5kW. These prerequisites and limitations could be seen as barriers to the expansion of the RE contribution to the grid. GRENLEC, the electric utility in Grenada implemented a Renewable Energy Interconnection Policy

What are the benefits of net metering?

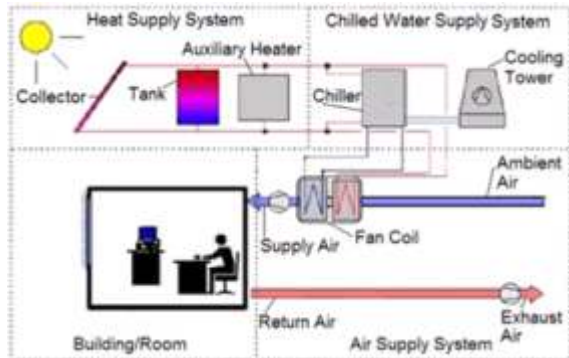
1. Net Metering benefits both utilities and consumers. For the utility, capital and administrative costs associated with dual metering under a net billing system are avoided. Since many RE sources are intermittent, it obviates the need for the consumer to invest in battery storage systems.
2. It is an attractive, simple and easy way to administer and encourage increased use of small-scale RE systems.
3. Contributes to protection of the environment and benefits the economy.

in 2008. In view of the inherent subsidies associated with net metering, GRENLEC has adopted net-billing as the preferred solution on Small Scale Embedded Generators up to 10kW with a cap of 1% peak demand.



Solar Cooling Technology – Part I

Most people are aware of solar systems for water heating purposes and for electricity production through photovoltaic (PV). To



How a solar air conditioning system works

some it may sound rather strange to hear that the sun's energy can be used for cooling buildings through solar cooling technologies. Yet these technologies have been around for years.

The major attraction of this system is that the greatest need for cooling is on the hottest days when simultaneously, the maximum possible solar energy is gained. Therefore, while the sun heats up

buildings, it also delivers the energy to cool them.

In the Caribbean, air-conditioning is one of the highest energy consuming services in the commercial building sector, including the hotel industry. This is responsible for a significant part of the peak electricity demand which is the most expensive load for the electric utilities. The prospect of supplying this air-conditioning demand from the sun is therefore considered to be quite an attractive proposition.

The question remains therefore, why hasn't there been more widespread awareness about solar cooling. The main reason is the high upfront cost may be as high as 3-4 times that of conventional systems. Also, the systems tend to be quite complex and are mainly available in larger capacities more suited for centralized operation. There are, however, smaller residential units being introduced on the market, especially hybrid systems operating in solar assisted

mode which could be cost effective for replacing conventional units at current electricity prices.

With current advances in research and technology the cost of systems generally, as well as the sizes, are being reduced. Further, there are a number of factors which could positively support the cost effective deployment of this technology in the Region, thereby boosting the contribution of RE to the energy matrix. These are:

- i) The high solar insolation available regionally;
- ii) The fact that many countries exhibit some of the highest electricity tariffs globally; and
- iii) The general downward trend in the price of technology coupled with predicted upward trend in world energy prices.

It is therefore considered timely that the Region could benefit from solar cooling installations to enhance awareness and learning so as to take advantage of the opportunities that the technology presents. To be continued in future issues of

Energy

Petroleum & Gas Briefs

Both oil producing CARICOM countries and non oil producing countries are intensifying their quest for more oil and gas exploration. The CARICOM Oil producers of Trinidad and Tobago, Suriname, Belize and Barbados will continue exploration this year. The follow summaries were extracted from **Energy Caribbean Year Book 2010/11** (which may be ordered at info@meppublishers.com):

Trinidad and Tobago: Exploration will continue in Trinidad and Tobago this year, with at least seven blocks being offered through competitive bidding for onshore exploration. This reflects a resumption of exploratory activities after a long break since 2006 when the Ministry of Energy and Energy Industries (MEEI) revised its Production Sharing Contract (PSC) system.

Trinidad and Tobago has been a producer of oil and gas for over 100 years and is completely self sufficient in its hydrocarbon needs. It exports a portion of its crude, but also has to import some to meet the needs of its 160,000 barrels per day (b/d) refinery. Local crude supplied to the refinery is more than enough to satisfy the domestic demand (about 22,000b/d) for refined products. The amount of gas produced far exceeds the domestic requirements – 60% of it is exported in the form of LNG.

Suriname: The state-owned oil company, Staatsolie is expected to continue its active drilling programme in 2010 in its efforts to maintain crude production at 16,000 barrels per day level. In addition to those offered in 2009, Staatsolie has four new blocks in its offshore North West region that are being offered to attract explorationists. Interest in these offerings

are deemed to have been particularly impacted by the downward spiral of the international economic and energy environment. Some drilling of offshore blocks already allocated is also expected in 2010.

Belize: CARICOM's newest oil and gas producer, Belize, through the Belize Natural Energy (BNE) Ltd. plans to bring a second field into production in 2010, and to conduct the seismic surveys necessary for new exploration in other parts of its licensed area.

Barbados: Crude production has been stagnating and even falling in recent years, but efforts are being made by the monopoly onshore producer, the state-owned Barbados National Oil Company (BNOC), to reverse that trend with the help of a foreign partner.

SUSTAINABLE ENERGY NEWS

First Regional Energy Sector Coordination Meeting of Development Partners and Multi-lateral Agencies Convened

The CARICOM Secretariat, with support from the CREDP-GTZ, hosted the First Regional Energy Sector Coordination Meeting of Multilateral Agencies and

the many sustainable energy initiatives being deployed in the Community and the critical role of the CARICOM Energy Programme in that regard; to garner

Meeting sought to facilitate discussions and an exchange of ideas for long-term partnerships and effective coordination of clean energy initiatives in the Region, consistent with the objectives of the 2005 Paris Declaration on Aid Effectiveness.



Mr. Garfield Barnwell, Director – Sustainable Development, CARICOM Secretariat and Mr. Joseph Williams, Manager – CARICOM Energy Programme at the Head Table. At left is a cross-section of some of the participants.

Developmental Partners on 21st July 2010 at the Rose Hall Resort and Spa, Montego Bay, Jamaica. A wide cross-section of developmental and energy partners from across the globe attended.

feedback from the many international organizations, multilateral agencies and development partners on their initiatives; to outline the key elements of the CARICOM Energy Programme and the proposed approach to achieving a more targeted approach to advancing sustainable energy. In general, the

Mr. Joseph Williams, Manager of the CARICOM Energy Programme introduced the concept of the Caribbean Sustainable Energy Road Map (C-SERM) and energy stakeholders Platform. Partners also presented snapshots of their current activities in the Region and plans for the future. The Meeting was regarded as a step towards achieving effective coordination of efforts in sustainable energy development as part of the thrust towards Regional sustainable development.

The main objectives of the Meeting were to: establish the need for coordination of

The organizations/institutions that were represented at the Meeting are: CARILEC, CCCCC, CDB, CREDP/GTZ, ECLAC, EIB, EU, GTZ, GVEP-I, IDB, IICA, OAS, OECS, PROJEKT-CONSULT GmbH, SRC/CEIS, DFID, UNDP, UWI, and the WB.

Stakeholders Review Status of the Caribbean Renewable Energy Development Programme (CREDP) Phase II

Focal points representing ten (10) Member States were briefed on the execution and financial status of the CREDP Phase 2 at a meeting held on June 24, 2010 at the Coyaba Hotel in Montego Bay. To date about 40% of project funds have been expended. Among the current activities that CREDP is supporting are: wind assessment activities in Antigua and Barbuda, examining the possibility of solar cooling projects in Saint Lucia and Jamaica, assisting with wind measurement in Suriname, and supporting energy efficiency in hotels in the OECS. Representatives had an opportunity to seek clarification and offer suggestions on areas where support is required.

I-SEAPS PROJECT TO BE IMPLEMENTED BY THE CARICOM Secretariat

The CARICOM Secretariat has received grant funding to implement the Project titled: “*Increasing Sustainable Energy Awareness in the Public Sector (I-SEAPS)*”. The project will demonstrate the feasibility of introducing RE and EE solutions in Government Buildings in Member States and at the **CARICOM Secretariat Headquarters**. Based on the results of the project, a communication strategy will be developed to encourage RE and EE solutions in Member States' national planning frameworks. The project is expected to run until the end of 2010. **Grenada and Antigua and Barbuda** have been selected as the two Member States in which pilot projects will be conducted. Several Member States, including St. Vincent and the Grenadines, are in the process of developing strategies to reduce energy consumption in public buildings.

National Energy Policy Approved by Saint Lucia Cabinet

Saint Lucia now has an official Energy Policy following Cabinet's approval in June 2010. The formulation of that document has been in the making for more than two years now through the support of the CREDP-GTZ and OAS EU financed project CSEP. This document represents a collaboration of many stakeholders in Saint Lucia led by the Ministry of Physical Development and the Environment with input from LUCELEC and the public at large. Among other things, the policy provides for private participation in generation, encourages the establishment of small scale renewable energy systems and proposes the establishment of an Independent Regulatory Commission for the electricity sector. In addition, Saint Lucia's 1994 Electricity Supply Act is being updated.

Other CARICOM Member States with approved National Energy Policies are Jamaica, and St. Vincent and the Grenadines. Several Members States are also in the process of finalizing their National Energy Policy.

Highlights of the Second Caribbean Sustainable Energy Forum

The Second Caribbean Sustainable Energy Forum (CSEF-2) hosted by several partners including the CARICOM Secretariat and held in Montego Bay, Jamaica during June 21 – 25, 2010 ended on a high note. The nearly week long of activities brought together energy and environmental experts from across the Region and beyond in what has been hailed as a successful event. Activities included an Exhibition, high quality multi-sector presentations conducted in parallel sessions and discussions, a Youth Environmental Forum and other post session and side events, including a festive closing banquet.

PHOTO GALLERY OF CSEF-2 EVENTS



Head Table of Dignitaries at the Opening on June 21. Hon. Bruce Golding, Prime Minister of Jamaica sixth from left delivered the



Hon. Stephenson King, Prime Minister of Saint Lucia in front at extreme left is part of the audience during the Opening Session



Hon. Bruce Golding cuts the ribbon to officially open the week of events as The Hon. Stephenson King and Mrs. Patricia Aquino, Executive Director of CEHI look on



Mr. Joseph Williams, Programme Manager, Energy, CARICOM Secretariat addressing the Main Conference Plenary on June 22



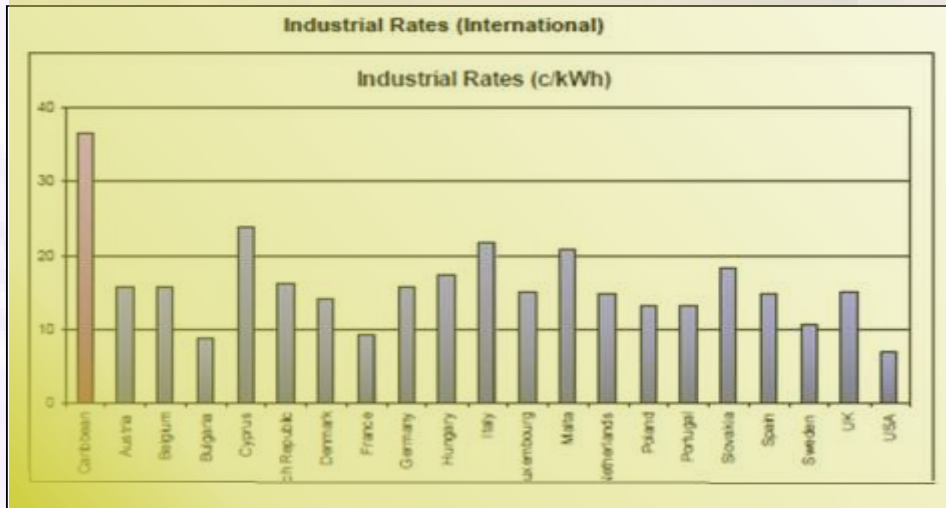
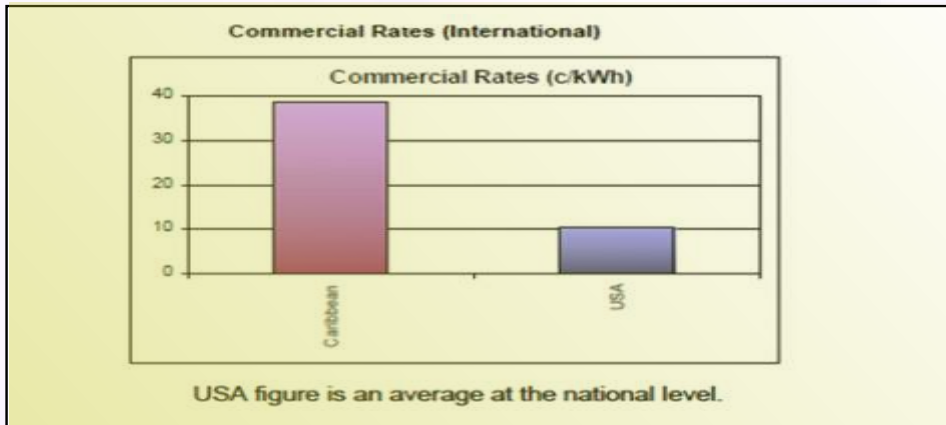
Mr. Thomas Scheutzlich, Principal Advisor - CREDP about to give opening remarks at the opening session on Sustainable Energy on June 23



Participants at the Youth Forum held on June 24 pose with Hon. Stephenson King (center)

A Comparison of the Average Electricity Prices for Caribbean Countries with those of the USA and Other Selected Countries

It has often been said that electricity tariffs in the Caribbean are high. The graphs below which were extracted from the Final Report of the Benchmark Study of Caribbean Utilities 2008 (The Full Report can be purchased from CARILEC), provide a summary comparison of the average commercial and industrial tariffs across the Caribbean with those of the USA and some other countries.



The Caribbean Photovoltaic Training Programme has been launched. Beginning September 2010, this Programme which is based in Barbados will train and certify persons in the Region to become PV installers. Further information can be obtained from AQUASOL on tel: (246) 428-0255 or BICO on tel: (246) 430-2100

From page 5



1. Because they have a lot of fans
2. A current event
3. What's watt
4. Pair of shocks
5. It really Hertz as much as 60Hz

QUIZ

1. Which CARICOM Member States have an approved energy policy?
2. Name the CARICOM Member States that allow the sale of electricity from small renewable energy generators to the grid through a net metering arrangement in some form or other?
3. Which CARICOM Member State most recently approved its National Energy Policy?

Answers to all questions can be found in the current and past issues of the Energy Newsletter. Answers must be submitted by email only to energy@caricom.org or energyprogramme.caricom@gmail.com

A prize of one copy of "Energy - The New Agenda" by Dr Raymond Wright will be awarded for the first correct set of answers emailed by Saturday, 7 August 2010.

Disclaimer

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UPCOMING SUSTAINABLE ENERGY EVENTS

- Energy Auditing Training of Trainers Seminar in Saint Lucia, 24–27 August 2010 - Targets Government or University Personnel with engineering background. Participants will be certified as Energy Auditors on completion.
- 21st World Energy Congress, Montreal, Canada, 12-16 September 2010 - Forum to develop a set of concrete and focused proposals to address the challenges facing the energy sector.
- Fifth Latin American and Caribbean Carbon Forum, Santo Domingo, Dominican Republic, 13–15 October 2010 - This Forum is annual regional platform established to promote knowledge and information sharing while facilitating business environments among main carbon market stakeholders.
- Caribbean Renewable Energy Forum 2010, Nassau, Bahamas, 14-15 October 2010 - This Forum will address the financial, regulatory, policy and technological obstacles to RE/EE implementation across the region.
- 10th Annual Energy Caribbean 2010 Conference, Port of Spain, Trinidad and Tobago, 25-27 October 2010 - This Conference has been strategically designed to address the pressing issues facing the Caribbean energy sector through a series of discussions, debates, case studies, market analysis and regional reviews.
- Scientific Research Council's 23rd Annual Conference & Exposition: 'Green Technologies for Survival', Jamaica, 9 – 11 November 2010.



The Energy Unit can be contacted for further information at:

E-mail: energy@caricom.org;
jwilliams@caricom.org

Telephone: (592) 222-0001/75 extension – 3521 and 3522; (592) 222-0139 (direct)

Fax: (592) 222-0224



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