



Presentation of the actual status of the Project – results up to now and lessons learnt

CREDP Planning Workshop
March 8, 2011

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Presentation

- **CREDP in a nutshell**
- **Overview of activities during the last 12 months:
an impact oriented approach (TS)**
- **Institutional strengthening of CCS and lessons learned
(MN)**
- **Energy Policy and legal framework conditions and lessons
learned (TS)**
- **Preparation of Investment Projects, Capacity and
Awareness Building and lessons learned (SH)**

CREDP in a nutshell

- ➔ **CREDP – Caribbean Renewable Energy Development Programme-CARICOM – programme for the promotion of sustainable energy (RE/EE) in the entire CARICOM Region and the Dominican Republic.**
- ➔ **CREDP/UNDP (2004 – 2009) was financed by GEF and implemented by UNDP/CARICOM (4.7 Mio USD).**
- ➔ **CREDP/GIZ (2003 – 2012) is financed by the Government of Germany with contribution from Government of Austria and implemented by GIZ headquartered in St. Lucia (at CEHI)
Total volume (Sept. 2010): 8.2 Mio EUR (approx. 11.3 Mio USD) including 0.75 Mio EUR (committed to CCS)**
- ➔ **Interventions: Institutional Support of CCS, Advice to Governments, TA for RE/EE investors, capacity building, PR, awareness raising and networking.**
- ➔ **CREDP supports only proven, off-the-shelf technologies: wind, hydro, geothermal, solar, biomass energies**

Overview of activities during the last 12 months: an impact oriented approach

Following Status Report states direct and indirect impacts and reviews their underlying activities.

Report in following areas of intervention:

- Institutional strengthening of Energy Unit at CCS**
- Energy Policies and legal framework conditions for RE/EE**
- Preparation of Investment Projects, Capacity and Awareness Building in RE/EE.**

Summarized lessons learned in each field of intervention.

CARICOM COMMUNITY SECRETARIAT INSTITUTIONAL SUPPORT

- ◆ **CARICOM Energy Unit established in April 2008.**
- ◆ **Mandate include:**
 - **Finalization of CARICOM (Regional Energy Policy)**
 - **Develop Sustainable Energy Roadmap and Strategy**
 - **Support Member States in the development of National Energy Policy and Action Plan**
 - **Support legal and regulatory reforms in Member States**
 - **Facilitate energy sector coordination.**
- ◆ **CREDP assigned support to bolster the capacity of the 'infant' unit in executing its mandate.**

FINALIZE REGIONAL ENERGY POLICY

Draft Regional Energy Policy finalized in 2007 by Task Force appointed in 2003 and presented to CARICOM Heads of Government.

Draft Policy covered a range of issues – holistic approach taken to sector development in the region e.g.

- hydrocarbon exploration and production; trade in energy; energy investment; diversification of energy source; renewable energy; energy efficiency; energy and the environment; institutional strengthening; research and development; public education and capacity building.

Heads of Government agreed that a Study to better understand the pricing structure for petroleum products, including all elements of price build up (transportation and storage) and trade of LNG, was fundamental to the finalization of the Policy.

CURRENT STATUS OF CARICOM ENERGY POLICY

- ❖ **The CARICOM Energy Policy was created to have a ‘top down’ effect and set the broad framework for the region from which national energy policies could be modeled.**
- ❖ **CARICOM Energy Policy was determined to have an imbalance in favour of hydrocarbon exploitation and trade and not sufficient focus on sustainable energy development.**
- ❖ **Clearly did not fully match the CARICOM Energy Programme and CREDP’ objectives and mandate:**

To increase regional energy security and advance the transformation of the Region towards a more sustainable energy developmental path through increased contribution of renewable energy and improved energy efficiency.

OUTCOME OF GAP ANALYSIS

Comprehensive gap analysis of CARICOM Energy Policy completed with CREDP support.

Will lay foundation for the finalization and approval of the CARICOM Energy Policy by Heads of Government.

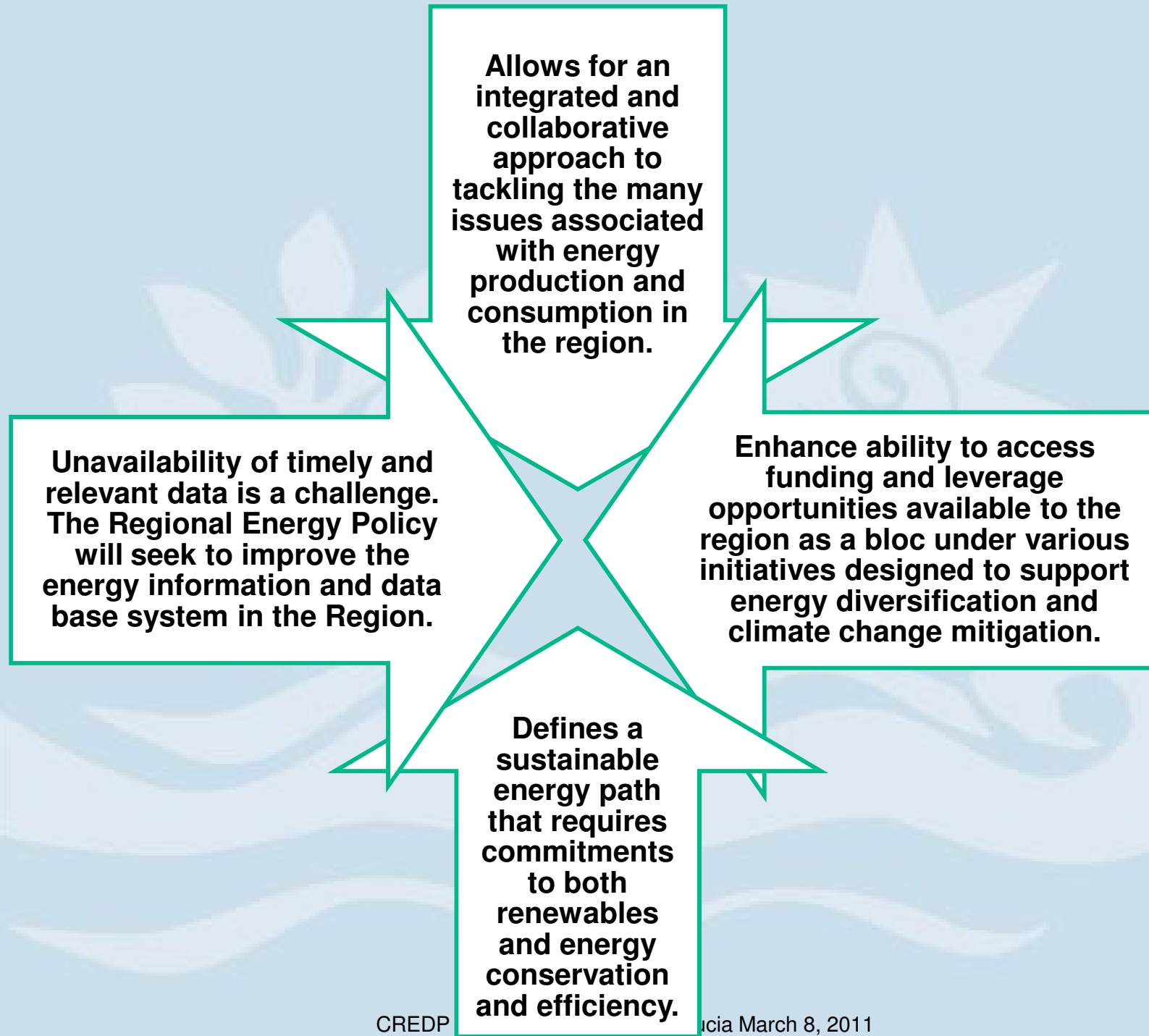
Gap analysis provides a situational analysis of the evolving international and regional energy outlook since the formulation of the draft policy in 2007.

Recommendations for revision to *CARICOM* Energy Policy are to be presented to the Special Meeting of the Council for Trade and Economic Development (COTED) to be held on March 22 and 24, 2011.

Presents adequate balance between utilization of primary and major energy and energy diversification and energy efficiency and conservation as the long term solution.

Clear recommendations proposed on policies and strategies that should be included or amendments that could be made to the draft policy to place greater emphasis on sustainable energy.

IMPACT OF 'STRENGTHENED' CARICOM ENERGY POLICY



SUPPORT TO MEMBER STATES - NATIONAL ENERGY POLICY

Country	Approved National Energy Policy	Draft National Energy Policy	Approved Action Plan	Draft Action Plan	Comments
Antigua & Barbuda		✓			Preparation of an Action Plan will commence after the Policy is approved.
The Bahamas		✓			Draft Policy with Cabinet for review. Implementation Plan being drafted.
Barbados		✓			Sustainable Energy Framework being developed.
Belize					Recommendations for an Energy Policy were drafted in 2003. Funding being secured to support policy formulation process.
Dominica		✓			With Cabinet for review.
Grenada		✓			Awaiting Cabinet's approval.
Guyana					Power Sector Policy and Implementation Strategy approved by Cabinet in July 2010.
Haiti					Limited work has started. The Caribbean Renewable Energy Capacity Support project funded by the EU and implemented by the CARICOM Secretariat will support a baseline study of the Energy Sector in Haiti and development of an Energy Policy / Strategy in 2011.
Jamaica	✓		✓		Policy approved by Parliament in November 2010. Five of six subsidiary policies have been drafted.
Montserrat		✓			Developed in 2008. To be submitted to Cabinet for consideration.
St. Kitts & Nevis		✓			
St. Lucia	✓				Approved by Cabinet in June 2010.
St. Vincent & the Grenadines	✓		✓		Policy and Action Plan approved by Cabinet in February 2009 and April 2010 respectively.
Suriname		✓		✓	Draft Policy and Action Plan address only renewable energy.
Trinidad & Tobago		✓			Draft Policy is only on renewable energy.

DEVELOP SUSTAINABLE ENERGY ROAD MAP - OBJECTIVE

Define achievable short (2015), medium (2020), and long term targets (2025) on a Regional Level for renewable energy (RE), bio-energy (BE) and energy efficiency (EE) contribution to the Regional energy mix based on resources available in the different Member States.

FRAMEWORK FOR C-SERMS

BASELINING

- Map and assess existing sustainable energy initiatives in all Member States (including efficiencies and conservation in transportation, electricity and industrial sectors).
- Review sustainable energy policies, plans, regulatory framework and legislation.
- Conduct Gap analysis of policy, capacity, awareness/awareness, financing.

TOOLS DEVELOPMENT

- Mechanism to support the development of the C-SERMS (possibly Platform comprised of multidisciplinary and multi-stakeholders)
- Regional Energy Balance Model for tracking progress, forecasting and monitoring the performance of the sector.

STRATEGIES AND TARGETS

- Establish short, medium and long term targets for RE, EE and BE
- Identify areas for necessary policy, regulatory and legislative reforms
- Identify areas for improvement in information and awareness, financing mechanism, R&D and innovation.

IMPACT OF C-SERMS

- ◆ **Set regional goals and specific targets for contribution of RE & BE to the energy mix as well as EE improvements in a strategic and targeted manner.**
- ◆ **Define pathways to achieve the set targets.**
- ◆ **Form the basis for commitment on the part of each Member State towards a Regional sustainable energy path in a strategic and targeted manner.**
- ◆ **Detail the finance and institutional capacity necessary for formulation of strategies and attainment of targets / goals.**
- ◆ **Provide a clear framework for focusing research, development and investment efforts in EE, RE and BE towards the achievement of the policy goals.**
- ◆ **Provide investment framework for mobilizing resources for project development.**

LEGAL AND REGULATORY REFORMS

- ◇ **Policy development advancing in some Member States but legal and regulatory reforms lagging (e.g. A&B sector is governed by APUA 1973; Bahamas - 1959 Electricity Act; Barbados – 1899 – Electric Light and Power Act; Jamaica – Electric Lighting Act; 1973 Electricity Supply Act; Suriname – 1990 Petroleum Act.**
- ◇ **Many existing laws are archaic and do not provide legal support for implementation of policy actions.**
- ◇ **RE development stymied because of enabling legislative framework – case of Montserrat.**
- ◇ **CARICOM Energy Unit to develop Model energy and electricity legislation and provide support to eight (8) Member States in drafting new sector laws or amending existing laws.**

LESSONS LEARNT

EXTREMELY IMPORTANT to engage all stakeholders in the process of energy policy formulation (relevant Ministries; Governmental & NGOs; private sector; manufacturers; citizenry; electricity consumers; interest groups, media etc).

Feedback is instructive in informing national energy strategies and decision-making on options and alternatives. However governments must maintain responsibility for ultimate strategies and solutions.

Member States are progressing in energy policy formulation but lagging in implementation and legislative reforms – will not achieve desired goals.

Accommodating a 'bottom up' approach in finalizing the CARICOM Energy Policy allows for the incorporation of Member States experiences and priorities.

Results of the project: direct / indirect impacts, success stories and pitfalls: Energy Policy and legal framework conditions

St. Lucia: Lucelec approves in 2011 a grid-connected PV system for Benedict Nunnery of ca. 25 kW, in absence of amended ESA (direct impact)

Activities:

- **Assistance in formulating the National Energy Policy since 2005**
- **Initiation and moderation of dialogue between GOSL and Lucelec**

Results of the project: direct / indirect impacts, success stories and pitfalls: Energy Policy and legal framework conditions

St. Vincent: Energy Unit at OPM took over driving wind development at Ribishi Point from VINLEC; EE audits in 75 public buildings and installation of PV systems on three buildings in 2011 (indirect impacts).

Activities:

- **TA in drafting National Energy Policy (approved by Cabinet in 2009)**
- **TA in drafting National Energy Action Plan (2009)**
- **TA of VINLEC in wind, hydro and PV development since 2004**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Energy Policy and legal framework conditions**

Suriname: Ministry of Natural Resources adopt elements of the National Energy Policy drafted by CREDP in 2009/2011. (direct impact)

Activities:

- **TA to the Government of Suriname in formulation of RE Policy and National Energy Action and Implementation Plan (2009)**
- **Stakeholder Consultations on National Energy Policy (Staatsolie and utility EBS)**

Results of the project: direct / indirect impacts, success stories and pitfalls: Energy Policy and legal framework conditions

Barbados: Fair Trade Commission approved in 2010 PV Pilot Project of BLP for up to 200 Systems or 1.6 MW based on a feed-in tariff for individual electricity generators (indirect impact).

Activities:

- **Assistance of BLP in 10 MW wind park development at Lambertz**
- **Inclusion of BLP in CAWEI and wind study tour to Germany and Acores**
- **TA request from BICO in using RE to reduce operational cost of BICO**
- **TA request from BICO in tendering process of a commercial PV Plant (150 kW)**
- **TA request of BICO for solar cooling application**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Energy Policy and legal framework conditions**

**Antigua and Barbuda: Circulation of Energy Policy Draft among stakeholders
in 2011. (direct impact)**

Activities:

- **TA provided in 2010 to the Energy Desk in drafting the National Energy Policy in cooperation with CSEP (CSEP = lead in this activity).**
- **TA provided to Energy Desk and APUA in wind development since 2010.**

Results of the project: direct / indirect impacts, success stories and pitfalls:

Energy Policy and legal framework conditions

Some lesson learned

- **Change in Energy Policy and legislation promoting RE/EE requires long term perspective, e.g. in St. Lucia > 5 years**
- **Early and intensive stakeholder consultations in Energy Policy formulation help to broaden acceptance and application of policy even before turned into legislation.**
- **However, as long as an energy policy is not legally implemented, it does not provide a reliable framework for the energy sector players.**
- **Utilities do welcome clear energy policies and regulatory frameworks even they would have to give up privileges and would have to adjust their mode of operation. A reliable energy legislation would enable utilities to do long term planning and to adjust their operation accordingly.**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **St. Vincent: VINLEC approves budget to rehabilitate 2 hydropower plants starting 2011 (direct impact)**

Activities:

- **Technical Assistance for the pre-feasibility and feasibility study and tender design and tender documents**
- **Advisory services for the VINLEC Board of Directors and the Energy Board of the Government of St. Vincent and the Grenadines**

Results of the project: direct / indirect impacts, success stories and pitfalls:

Preparation of Investment Projects, Capacity and Awareness Building and lessons learned

- **Jamaica: request to CREDP for Technical Assistance for the development of Wigton 3 (indirect impact)**

Activities:

- **CREDPs competence built up as a result of capacity building measures for WWF Ltd. and PCJ like wind workshops in the region since 2004 and Germany (Terna workshops, 2007, 2008), Wind study tour 2007 to Germany and Azores**
- **Coaching of personal of WWF Ltd. In Germany for the PPA negotiations with JPS in 2009 as preparation of Wigton 2 wind farm.**
- **Initiation of South-South Cooperation in wind development between WWF and future wind park developers within CAWEI (2011)**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **Nevis: 2.2 MW Madden Estate wind farm installed near wind site suggested by CREDP in 2006 (indirect impact)**

Activities:

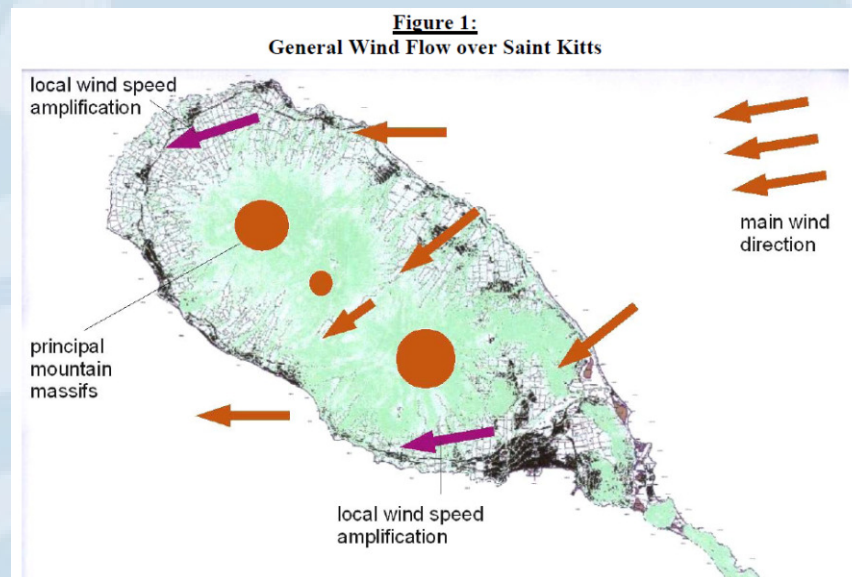
- **Review and evaluation of old wind studies (80ties) for Nevis and St. Kitts**
- **Wind park site identification study in 2006**
- **Technical Assistance for identification of potential wind measuring sites**
- **Identification of measuring equipment**
- **Capacity Building of for personnel from Nevlec in workshops**

Results of the project: direct / indirect impacts, success stories and pitfalls: Preparation of Investment Projects, Capacity and Awareness Building and lessons learned

- St. Kitts: 5 MW wind farm (private investor Nordstar), Turbines ordered from Vestas, to be installed in 2011/2012 (indirect impact)

Activity:

- Technical Assistance in 2006 suggesting the general wind site location as finally chosen



**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **Antigua: Wind measuring campaign started in May 2010 at 4 sites (direct impact)**

Activity:

- **Assistance of the Energy Desk within the government and APUA in wind development strategy**
- **Technical Assistance in selection of sites and installation of measuring equipment**
- **Technical Assistance in evaluation of recorded wind data**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **Trinidad & Tobago: Wind measurement project commenced in 2011 (direct impact)**

Activity:

- **Advisory services to the Government of Trinidad & Tobago in 2010
(Initiative from GoTT who requested assistance from CREDP)**
- **Advisory service in developing a wind resource assessment strategy 2011**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **Suriname: Wind power development commenced in 2010 (direct impact)**

Activity:

- **Technical Assistance in the selection of wind measuring sites**
- **Technical Assistance in evaluation of collected wind data**
- **Capacity building workshop (wind seminar in February 2011)**

Results of the project: direct / indirect impacts, success stories and pitfalls: Preparation of Investment Projects, Capacity and Awareness Building and lessons learned

- **Guyana: Financing secured for Kato hydropower station (direct impact)**

Activity:

- **Pre-feasibility study 2007**
- **Second opinion during feasibility study 2009**
- **Assistance during application process for financing from EU EF, 2010**
- **Currently: finalization of technical documentation required for financial closure**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **OECS: Supreme Court Building project (Energy Efficiency) (direct impact)**

Activity:

- **Capacity building for architects team**

Expected output:

- **Guideline for energy efficient building design for office buildings**

→ Requested as well by GEA, Guyana

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **St. Vincent: Request for Technical Assistance for heat recovery from Diesel plant (Energy Efficiency measure), (direct impact)**

Activity:

- **Technical Assistance and advisory services to VINLEC in other fields (hydropower, wind power, photovoltaic)**
- **Request for Technical Assistance is subsequent to satisfactory services (“Returning Customer”)**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **Dominica: Request from DOWASCO for Co-financing by ADA of 200 kW
Newtown Hydropower project (direct impact)**

Activity:

- **Pre-feasibility (2006) and feasibility study and establishment of tender documents (2009/2010)**
- **Advisory services for DOWASCO, DOMLEC and the Government of Dominica since 2005**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **St. Lucia: Sir Arthur Lewis Community College concept for PV Teaching Plant (direct impact)**

Activity:

- **Technical Assistance in the system design**
- **Capacity building for college teachers**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **St. Lucia: Proposal from system supplier for Benedict Nunnery for commercial PV Plant (25 kW) (direct impact)**

Activities:

- **Technical Assistance for the design of the PV system**
- **Advisory services for the Mother Superior**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **Dominica: Minister decides to create the position of a hydrologist (direct impact)**

Activities:

- **Planning and installation of 5 hydrometric stations**
- **Training of operating personnel**
- **Capacity building on ministerial level**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **St. Vincent: Technical College teaches PV installation techniques as of 2011
(direct impact)**

Activities:

- **Assistance in development of curriculum extension plan**
- **Training of college teachers to teach PV courses**

**(Same Action also with colleges in Grenada and St. Lucia, but no feed-back
from them to date)**

**Results of the project: direct / indirect impacts, success stories and pitfalls:
Preparation of Investment Projects, Capacity and Awareness Building and
lessons learned**

- **Guyana: Installation of an Energy Awareness Week similar to the one in St. Lucia (direct impact)**

Activities:

- **Successful Exhibition “Renewables - made in Germany” in 2008**
- **Assistance in development of EAW concept**
- **Guidebook for organization of EAWs (www.credp.org)**

Results of the project: direct / indirect impacts, success stories and pitfalls: Preparation of Investment Projects, Capacity and Awareness Building and lessons learned

Lessons Learned:

- **Project development needs time during decision making process**
- **Project developments are delayed if budget approval is required:
Examples: hydrometry Dominica and VINLEC hydros**
- **Wind development: availability of land needs to be clear before even
thinking about starting wind development; Example: Sugar Mill, St. Lucia;
Consequence: have alternative wind site!**
- **Projects sometimes need a lot of care;
Example: hydropower plants in St. Vincent: several presentations were
required to various boards
Example: Solar cooling: a lot of convincing required for new technology**

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Information/contact:

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Thank you for your attention.