

Energy Policy: Is There a Prescribed Recipe for Energy Policy Formation, Implementation and Control in CARICOM?

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2nd Caribbean Sustainable Energy Forum (CSEF-2)
Rose Hall Resort and Spa, Montego Bay , Jamaica

June 23rd 2010

GROWING ENERGY DEMAND

2009 Interim Report on World Bank Study titled 'Interconnection of Electricity Systems and Fuel Strategy':

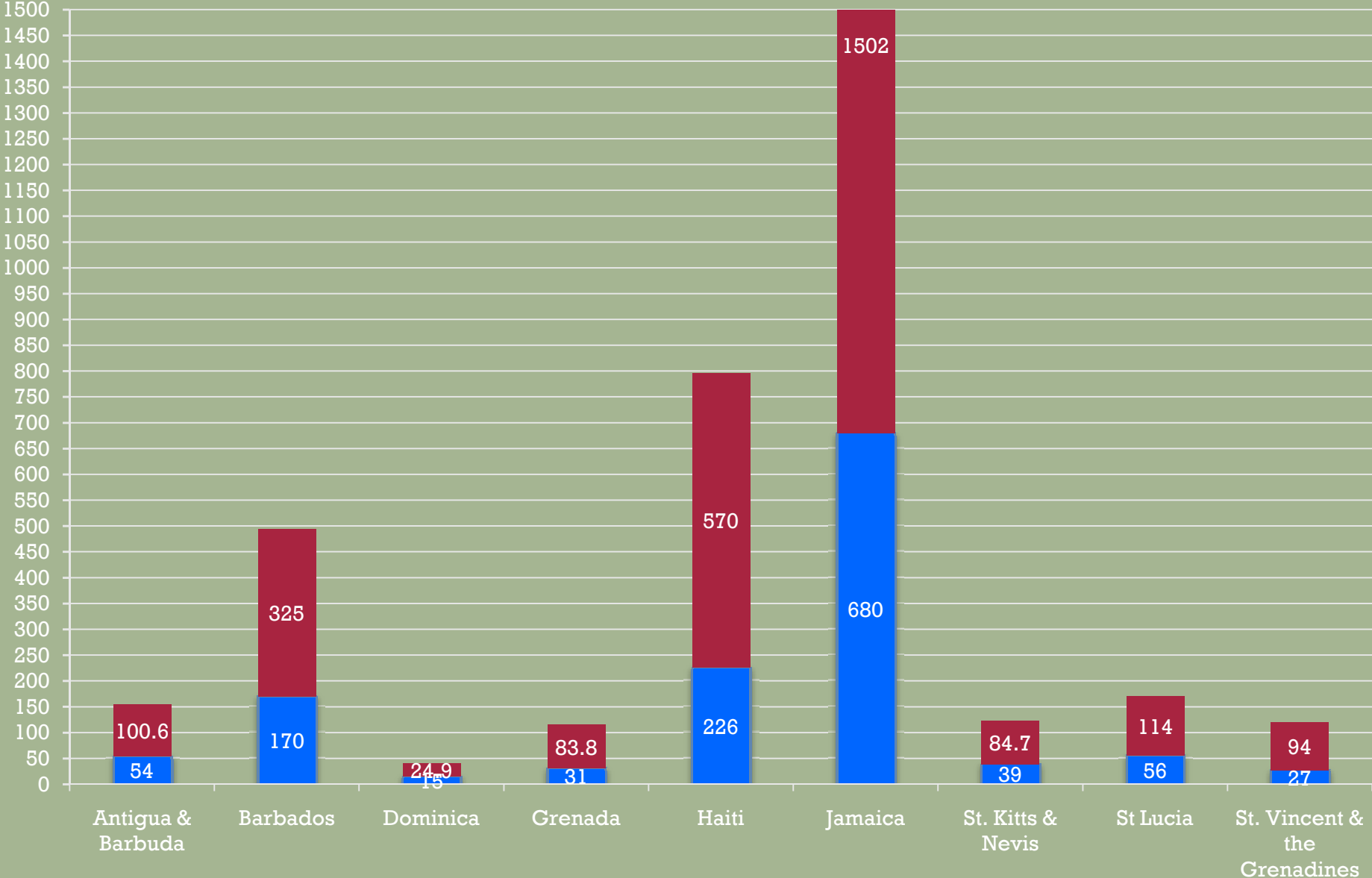
- ◆ Energy Demand is expected to double in the next 20 years.
- ◆ Average annual growth rate for the region is 3.7%.



Net Peak Demand Load Forecast For Selected CARICOM Countries - MW

■ 2009 forecast ■ 2028 forecast

Source: World Bank 2009 Report



Country	Diesel	Heavy Fuel Oil	Natural Gas	Type of Renewable			RE Share of Grid Generation (2009) - est. (%)
				Grid Installed	Planned in Short-Term	Additional Potential	
Antigua & Barbuda	Yes	Yes		None	?	Wind, solar	0%
Bahamas	Yes	Yes		None	15 MW wind farm in 2012	solar, biomass	0%
Barbados	Yes	Yes	Yes	None	10 MW windfarm & 1.8 MW from PV	Wind, solar, waste-to-energy	0%
Belize	Yes	Yes		Hydro, co-generation	Co-generation	Wind, solar, biomass	44%
Dominica	Yes			Hydro	?	Geothermal, wind, biomass, solar	36%
Grenada	Yes			None	?	Solar, wind	0%
Guyana	Yes	Yes		10 MW co-generation fueled by bagasse supplied during crop season	Wind, hydro	Solar, biomass	Less than 10% during periods in the year
Haiti	Yes	Yes		Hydro	?	?	25%
Jamaica	Yes	Yes		Wind, hydro	Wind expansion	Biomass, solar	5.5%
St. Kitts & Nevis	Yes	Yes		None	Wind, geothermal	solar, biomass	0%
St. Lucia	Yes			None		Wind, geothermal, solar, biomass, hydro	0%
St. Vincent & the Grenadines	Yes	Yes		Hydro		Wind, solar	15%
Suriname	Yes	Yes		Hydro	?	Solar, wind, bio-diesel	95%
Trinidad & Tobago	Yes		Yes	None	?	Solar, wind	0%

PROBLEMS / ISSUES

Over 80% of world energy source is from fossil fuel – statistics relevant to countries of CARICOM.

PROBLEM #1:

- ◆ Security of energy supplies - CARICOM countries are heavily dependent on fossil fuel.

PROBLEM #2:

- ◆ Impact on the environment - burning of fossil fuel is a major contributor to GHG emissions – resulting in global warming and climate change.

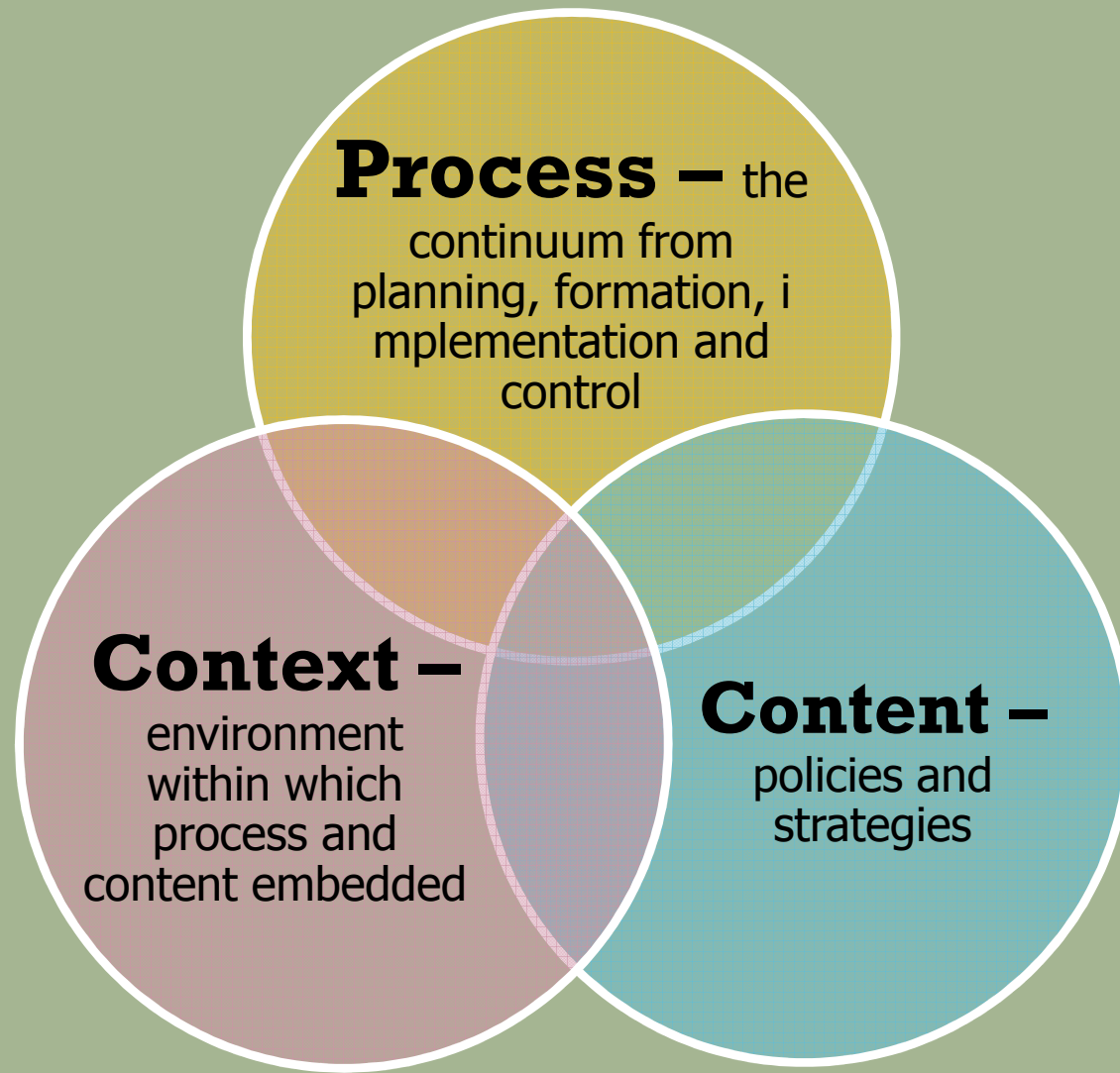
PROBLEM #3:

- ◆ Threat to the economy and budgetary constraints caused by volatility of oil prices .

ENERGY POLICY DIMENSIONS

- ◆ Energy issues / problems are complex and diverse – ‘no silver bullet’ to short-term solutions.
- ◆ Clear policies and strategies are the ‘springboard’ for increased RE contribution.
- ◆ Energy Policy revolves around a three dimensional approach.

DIMENSIONS OF ENERGY POLICY



SO WHAT NEXT? – The Process

Conduct Environment Scan to determine problems (or opportunities for diversification of energy sources using a variety of indigenous technologies

Commence **Engagement** on Strategies designed to provide solution

Formulate Energy Policy to provide Sustainable Solutions

Develop and Implement **Results Oriented Action Plans and Programs**

Establish Strategic Controls to analyze results of strategies and detect any problems

Amend Energy Policy Strategies, Action Plan and Legislation as necessary to achieve objectives

STEP 1 – ENVIRONMENT SCAN – The Context

Tool-driven approach

- To scan the wider environment and assess global perspective and regional setting.

PESTEL framework

- Appropriate for assessing external environment. Little control over certain global issues e.g. recent massive oil spill in the gulf of Mexico and volatile oil prices. Need to design strategies to mitigate.

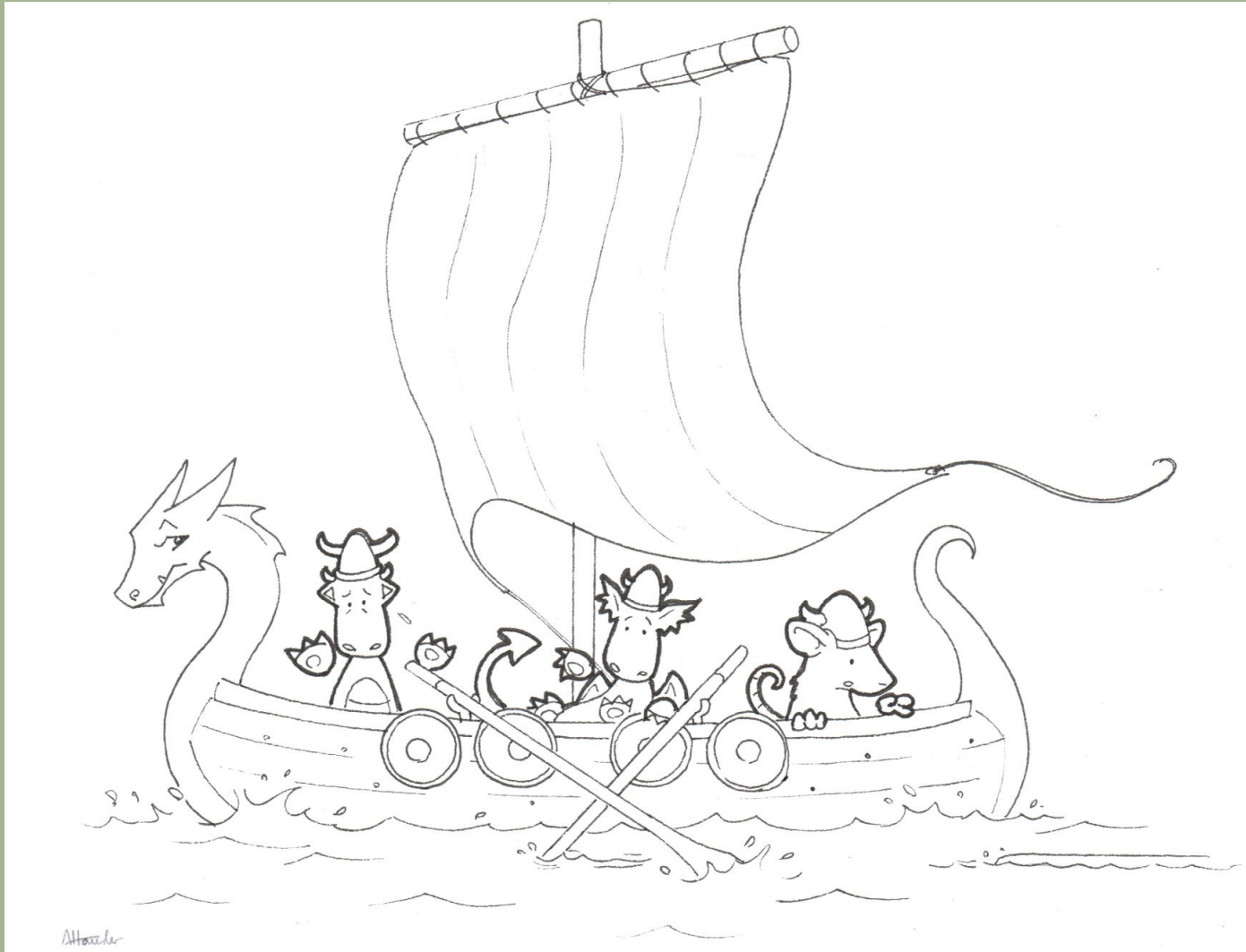
SWOT analysis

- For internal analysis of the country's energy sector. Weaknesses and threats minimized and opportunities and strengths maximized. Baseline data useful.

Step 2 - ENGAGEMENT

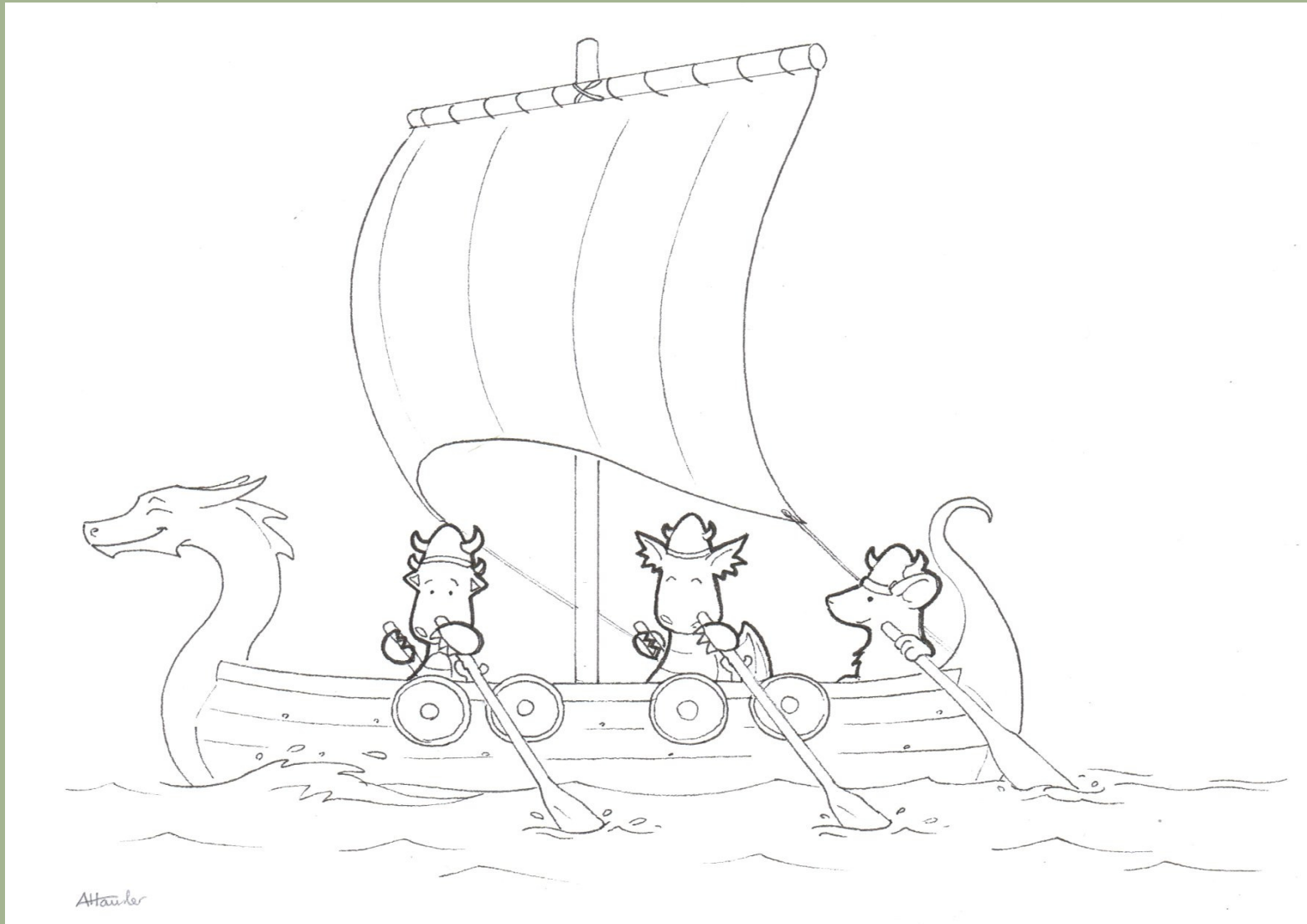
- ◆ **EXTREMELY IMPORTANT** to engage all stakeholders in the process of energy policy formulation (relevant Ministries; Governmental & NGOs; private sector; manufacturers; citizenry; electricity consumers; interest groups, media etc).
- ◆ Energy plays an important part in daily lives of everyone.
- ◆ Involvement engenders trust, buy-in, ownership & averts resistance and derailment of process.

UNDESIRED RESULT



Everyone pulling in different directions

DESIRED RESULT



... pull in the same direction

PURPOSE OF ENGAGEMENT?

- ◆ Provides a forum for views of various stakeholders to be discussed.
- ◆ Stimulates exploration of a wide-range of solutions – Governments do not have all the answers.
- ◆ Feedback is instructive in informing energy strategies and decision-making on options and alternatives.

HOWEVER GOVERNMENTS MUST MAINTAIN RESPONSIBILITY FOR ULTIMATE STRATEGIES AND SOLUTIONS.

PROCESS FOR ENGAGEMENT

- ◆ Varies from country-to-country – no prescribed formula – determine what works best.
- ◆ Antigua commenced the engagement process by establishing 18 Member broad-based task force.
- ◆ In Jamaica:
 - the initial draft document (Green Paper) was in the public domain for over 2 years online.
 - public consultation on revised draft held over 3 – 4 month period throughout island.
- ◆ Town hall style engagement becoming popular.
- ◆ A minimum of 2 public consultations proposed – 1st to frame the issues and 2nd to engage on substance – ‘One Big Bang’ is usually not effective.

Step 3 - ENERGY POLICY FORMATION

- ◆ National (Sustainable) Energy Policies set the vision and framework for a sustainable energy pathway.
- ◆ Define policy instruments, strategies and goals.
- ◆ Have a long-range horizon (up to 2030 in Jamaica & St. Vincent & the Grenadines).

Jamaica's vision

- A modern, efficient, **diversified and environmentally sustainable** energy sector providing **affordable and accessible** energy supplies with **long-term energy security** and supported by informed public behaviour on energy issues and an appropriate policy, regulatory and institutional framework.

Antigua's Vision

- Creating an enabling environment (regulatory, economic and institutional) for the **increased utilization of indigenous energy sources** and thus to achieve **greater energy security and independence** while **reducing energy production costs**.

APPROVAL OF NATIONAL ENERGY POLICY

Usually the line Ministry takes the lead during the Energy Policy formation process.

Approval process varies in slightly in Member States:

In Jamaica the first draft document circulated for discussion and consultation is termed 'green paper'.

Feedback during consultation considered and incorporated and 'white paper' prepared. Several drafts of the 'white paper' may be circulated to stakeholders for comments.

Final Policy document prepared and sent to Cabinet for approval:

In St. Vincent & the Grenadines draft submitted first to the National Energy Committee prior to submission to Cabinet

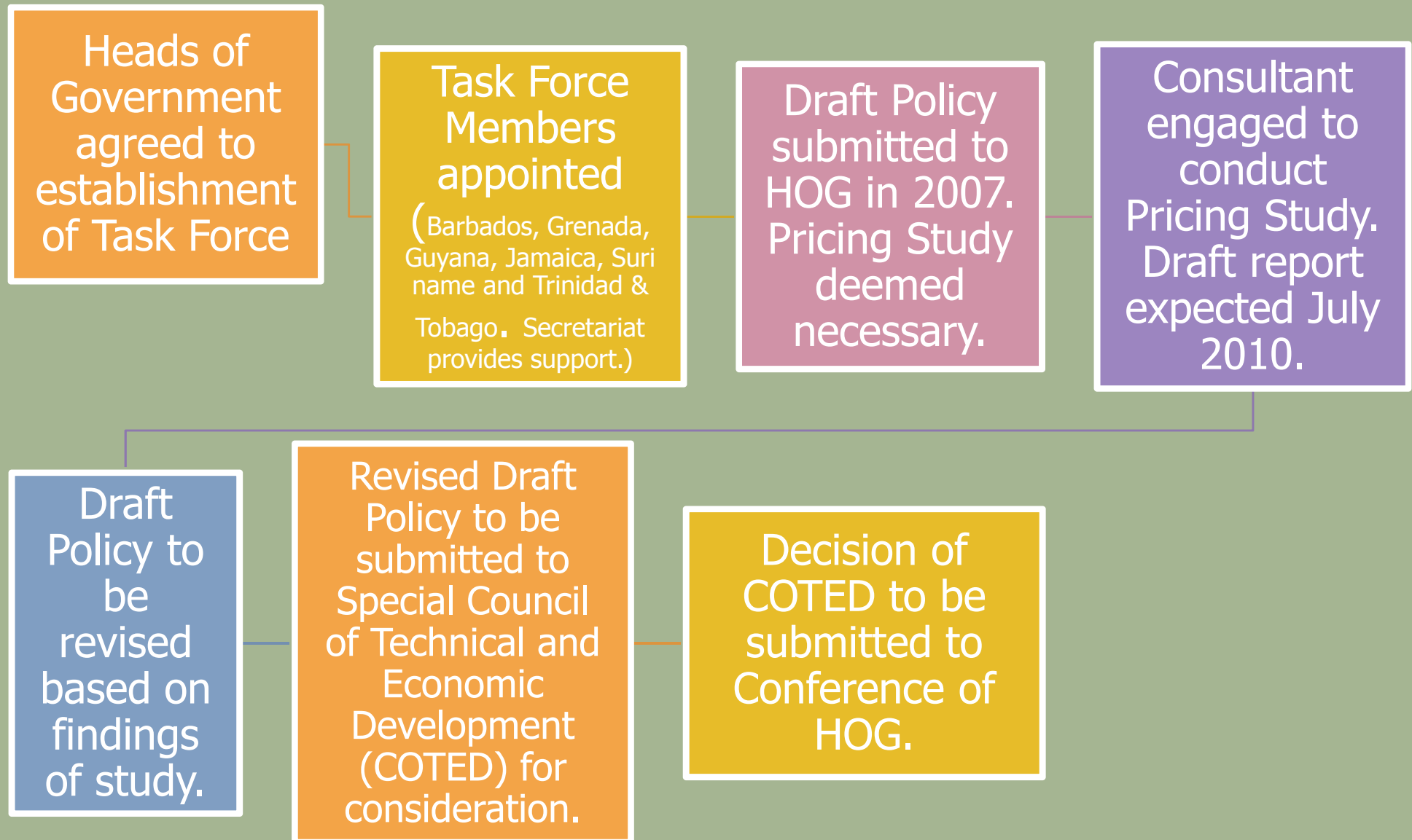
Cabinet may:

Consider and approve policy

Appoint a select sub-committee for review and comments

Cabinet Approved document is Official Energy Policy. Tabled in Parliament (National Assembly in Guyana) – no debate required.

REGIONAL ENERGY POLICY – THE PROCESS



LEGAL FORCE

- ◆ Enactment of new legislation or amendment of existing legislation may be required:
 - ▶ to give legal force to range of policy issues.
 - ▶ develop clear framework and rules to encourage investment in RE technologies e.g. Geothermal Resources Development Ordinance 2008 in Nevis.
- ◆ Policies and strategies could impact a range of legislation and other statutory instruments including:
 - ▶ Re-negotiation of monopoly utility licence to allow for competition in generation;
 - ▶ Building code to set standards for energy efficiency in building sector;
 - ▶ Motor Vehicles Act set emission levels on vehicles;
 - ▶ Tax and Fiscal Act – exemptions.

Step 4 – Develop Action Plan

- ◆ Support Policies with an Energy Action Plan designed to enhance the achievement of strategies and goals.
- ◆ Plan must detail clear measurable targets, activities, timeframes, tasks, responsibilities, resources allocation, milestones and performance measures (indicators).
- ◆ Targets and activities could be classified according to time-scale (short, medium, long-term).

Step 5 – ESTABLISH CONTROLS

- ◆ Strategic controls are essential for tracking strategies and activities during implementation to detect problems or changes.

WHY?

- ◆ Since energy policies and strategies are future-oriented and forward looking they are based on assumptions.
- ◆ Lapse in time between implementation of strategies and activities and achievement of results.

TYPES OF CONTROLS

Premise Control

- Check Continuously whether the underlying assumptions or predictions are still valid – (specific).

Strategic Surveillance

- Monitor global and regional events that are likely to impact the achievement of intended results (loose and unfocused).

Special Alert Control

- Sudden, unexpected or unforeseen event that necessitates a reconsideration of strategies e.g. hurricane.

Implementation Control

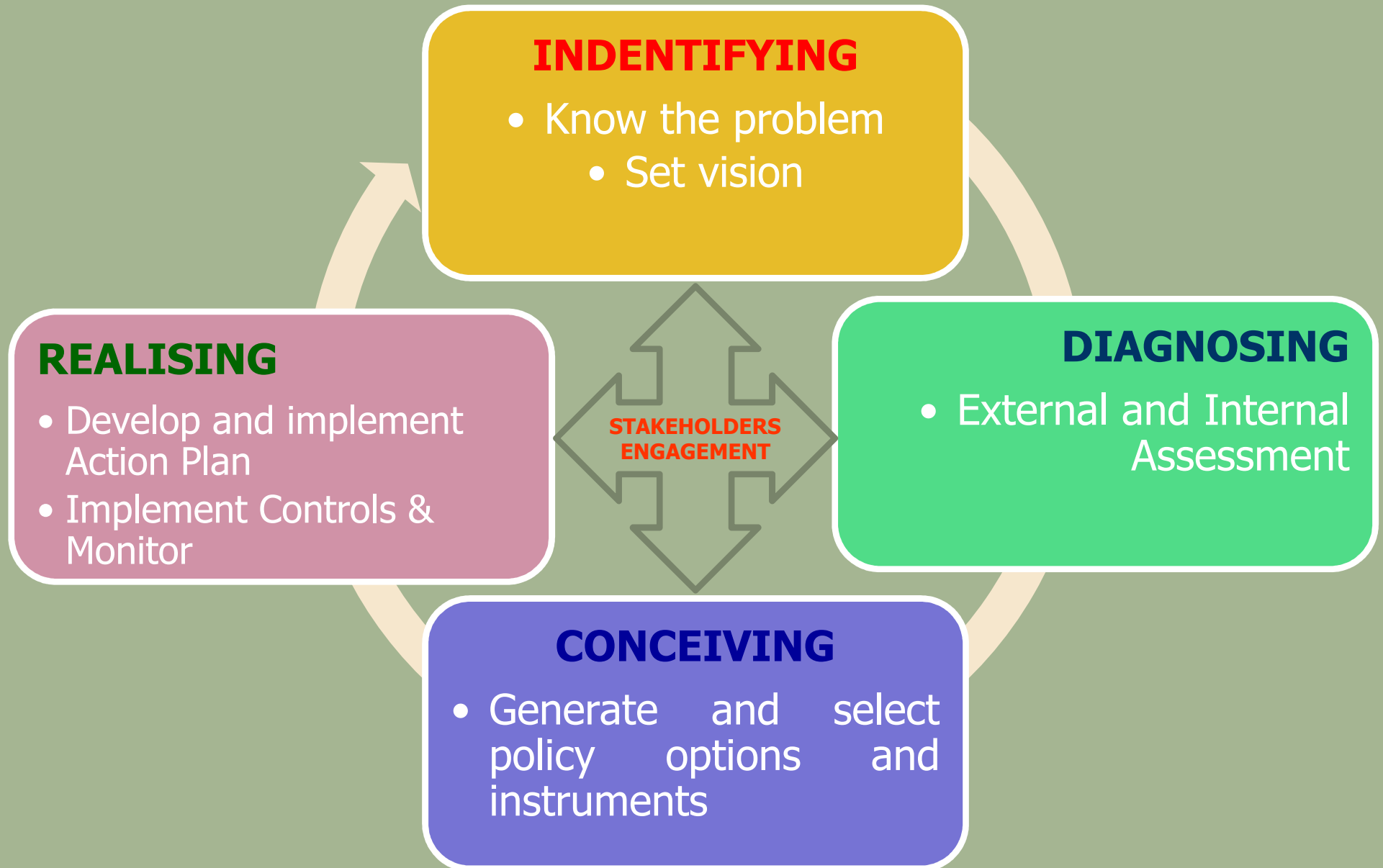
- Monitor milestone results to determine whether implementation activities should be revised.

Step 6 - AMEND

Based on information obtained from controls:

- ◆ Implement strategic changes as necessary to remain in harmony with any shifts in opportunities or threats in the environment – **'strategic renewal'**.
- ◆ Amend Policies, Action plan, Legislation etc.
- ◆ Failure to align with environment could result in **'strategic drift'**.

POLICY ACTIVITIES



GOALS AND POLICIES - the Content - examples

Energy Planning and Management	Power Sector	Renewable Energy	Transportation	Energy Efficiency
<ul style="list-style-type: none"> • Improvement of the database • Introduction of an effective coordination of the energy sector • Regular elaboration and updating of an Energy Action and Implementation Plan • Institutional strengthening and capacity building 	<ul style="list-style-type: none"> • Improvement of efficiency at all levels of electricity supply • Encourage net metering • Establishment of a Regulatory Authority. • Electricity tariffs reflective of actual costs. 	<ul style="list-style-type: none"> • Promote appropriate Renewable Energy technologies • Analyse RES potential • Development of local capacity for RET • Encouragement of private sector participation in RE projects • Provision of financial and fiscal incentives for RET • Incentives for installation of solar water heaters 	<ul style="list-style-type: none"> • Taxation system that provides incentives for low-consuming vehicles • Restrict the importation of second-hand cars with excessive fuel consumption • Set emission and fuel-consumption controls for vehicles 	<ul style="list-style-type: none"> • Promotion of Energy Audits for key energy consuming sector • Fiscal incentives for the import of energy-efficient products • Establishment of standards and guidelines for electrical appliances, equipment and materials • Increase awareness on energy conservation, efficient use and energy-efficient appliances • Establish standards or guidelines for the insulation of buildings • Ban inefficient incandescent light bulbs

Extracted from April 2009 report submitted by Detlef Loy to CARICOM Secretariat on guidelines for elaborating NEP.

STATUS OF ENERGY POLICY IN CARICOM

COUNTRY	STATUS ON NATIONAL ENERGY POLICY	SUSTAINABLE ENERGY PLAN	REGULATORY FRAMEWORK	LEGISLATIVE FRAMEWORK
Antigua & Barbuda	Draft Policy Developed	None	No independent regulator.	1973 Antigua Public Utilities Authority Act
The Bahamas	Draft Policy Developed.	None	PUC authority not yet extended to electricity sector.	1959 Electricity Act; 1993 Public Utility Commission Act - amended 1999
Barbados	Draft Energy Policy Developed. Sustainable Energy Framework being developed.	None	Fair Trading Commission	1899 Electric Light & Power Act; Utilities Regulation Act Cap. 2000 - 30; 2001 Fair Trading Commission Act.
Belize	Energy Policy Recommendations developed in December 2003.	None	Public Utilities Commission established in 1999 multisector.	1992 Electricity Act; 1999 Public Utilities Commission Act.
Commonwealth of Dominica	Draft Energy Policy	Draft Sustainable Energy Plan	Independent Regulatory Commission established in 2007 for electricity sector only.	2006 Electricity Supply Act. Geothermal Act and Environmental Regulations being finalized.
Grenada	Draft Policy being prepared. Consultations on first draft fixed for April 2010.	Draft Sustainable Energy Plan	No independent regulator.	1994 Electricity Supply Act; new replacement Act in draft since 2001.
Guyana	1994 Energy Policy expired in 2004.	None	Independent Regulatory Commission established in 1990 multisector.	1999 Electricity Sector Reform Act; 1999 Public Utilities Commission Act; 1997 Guyana Energy Agency Act; 2002 Harmonization of Laws Act; 1956 Hydroelectric Power Act.

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Jamaica	Approved National Energy Policy 2009 - 2030.	None	Office of the Utilities Regulation established in 1997 multisector.	1893 Electric Lighting Act; 1974 Electricity Development Act; 1979 Petroleum Act; 1995 Office of the Utilities Regulation Act.
St. Kitts & Nevis	Draft National Energy Policy.	Draft Sustainable Energy Plan	No independent regulator.	1993 Electricity Act; 1998 Electricity Ordinance; 2008 Nevis Geothermal Resources Development Ordinance.
St. Lucia	Approved National Energy Policy .	Draft Sustainable Energy Plan	No independent regulator.	1994 Electricity Supply Act currently being revised.
St. Vincent & the Grenadines	National Energy Policy and National Energy Action Plan approved	None	No independent regulator.	1973 Electricity Supply Act.
Suriname	Draft Renewable Energy Policy developed.	None	No independent regulator.	1990 Petroleum Act.
Trinidad & Tobago	None	None	Regulated Industries Commission established in 2001 multi-sector.	1946 Trinidad & Tobago Electricity Commission Act; 1998 Regulated Industries Commission Act; 1969 Petroleum Act.

NEXT STEPS - JAMAICA

- ◆ Part of Energy Policy next steps is to develop supporting policies to umbrella policy.
 - ▶ Renewable Energy;
 - ▶ Carbon Emission Trading;
 - ▶ Biofuels Policy;
 - ▶ Waste to Energy;
 - ▶ Energy Conservation & Efficiency Policy.
- ◆ Electricity Supply Act being updated.

CONCLUSIONS

- ◆ There is **no right way** for Energy Policy Formation, Implementation and Controls within CARICOM.
- ◆ Important that strategies are designed to achieve the long-term vision of the country – increased RE contribution.

◆ The process within CARICOM Member States generally follow a common thread with marginal variation.



THANK YOU
FOR YOUR
ATTENTION