# Renewable Energy Policies in Trinidad and Tobago

Regional Workshop on Metrology and
Technological Challenges of Climate Science and Renewable
Energy

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14th April 2015, Kingston, Jamaica





#### Trinidad and Tobago is similar....



**Small Island Developing State (SIDS)** 



**Climate Change Vulnerability** 



Small and Geographically isolated

#### ... but also Different

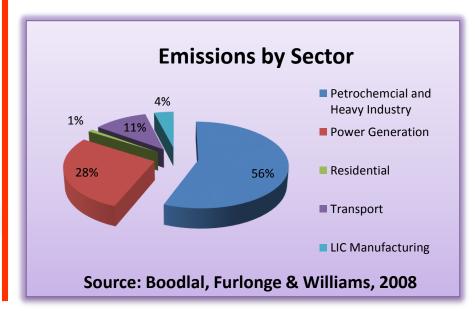




Hydrocarbon Production

**Low Energy Prices** 

Petrochemical Industry





**Limited Resources** 



## **National Policy Support for Renewables**



National Environmental Policy, 2006



Signatory to UNFCCC's Kyoto Protocol



National Climate Change Policy, 2011



Medium Term Policy Framework 2011 – 2014



Renewable Energy Policy Framework, 2011



Implementation by the Ministry of Energy and Energy Affairs

### **Key Drivers...**

Climate Change Mitigation Energy Security Economic Diversification





## **Emphasis on Addressing the Challenges & Implementing Support Mechanisms**



- Subsidized Petroleum Product Prices
- Policy and Legal Framework
- Finance and Market
- Education and Awareness

- Resource Assessments
- Development of Standards
- Development of Supporting Policy and Legislative Framework
- Incentive schemes
- Capacity Building and Awareness Creation



## **Resource Evaluation and Technology Deployment**

Inter-American
Development Bank
(IDB)

Technical and Policy support to develop a Sustainable Energy Programme for Trinidad and Tobago - completed in 2014

#### Some identified resources with potential....

#### **Wind Energy**



- •RE Policy Framework recommends wind energy for bulk RE generation.
- Tax exemptions for wind energy equipment.
- Wind Resource Assessment to be conducted shortly.

#### **Solar Energy**



- Tax credits for Solar Water Heaters and tax exemptions for solar PV panels.
- Feasibility study for establishing solar PV manufacturing facility completed in 2014.
- Steering Committee established in 2015 for the oversight of the Development of an Integrated Photovoltaic Park.



#### **Waste to Energy**

Waste Characterization Study and Analysis of Waste to Energy recommended.





## **Implementation of Supporting Standards**



- ✓ National Electrical Wiring Code reviewed
- Part III for Renewables and interconnection requirements included.

T&TEC, Mt. Hope Compound (2.2 kW)





- ✓ SWH Systems Design and installation requirements.
- ✓ Thermal Solar Systems and Components – Solar Collectors – Part 1: General requirements.
- ✓ Public Specification for materials for SWH collectors.
- Specification Committee formed to develop Trinidad and Tobago Standards on Photovoltaic Systems.
- Draft Standard has been developed.





## **Promoting RE Grid Integration**





#### **Legislative Review for RE Grid Integration**

- The OAS is providing technical assistance through the Sustainable Energy Capacity Building Initiative (SECBI).
- The Clean Energy Solutions Center (CESC) is assisting in legislative review: T&TEC Act and RIC Act.



#### **Feed-in-Tariff Policy Development**

- Technical assistance received from the UNEP in 2012 for the development of a toolkit for FIT Policy Development.
- FITs viewed as a favorable policy instrument in the local scenario.
- Inter-agency FIT Committee convened in December 2014 for the development of a FIT Policy for Trinidad and Tobago.

  MINISTRY OF



## **Capacity Building and Public Awareness**



#### **Capacity Building**

- Collaboration with local universities UTT and UWI to facilitate technical training
  - SWH Technicians
  - Solar PV Technicians



#### **Raising Awareness**

- Pilot Projects -
  - Installation of RE technologies in Community Centres – PV for external lighting
  - Installation of RE technologies in schools and supporting training programmes – Solar PV and distillation units
  - National Energy Communication Campaign



## **Energy Efficiency ..... Big Potential!**



#### The Industrial Sector

- An Energy Efficiency Study conducted on the Point Lisas Industrial Estate in 2011 revealed significant potential for energy savings.
- Tax incentives to promote energy efficiency in the industrial and commercial sectors have been introduced.
- An ESCO Certification Committee was established to certify and set criteria and standards for ESCOs. Stakeholder consultations are anticipated by the 2nd quarter, 2015.



#### The Public Sector

- Pilot project with assistance from IDB for the Conduct of Energy Audits in Selected Government Buildings.
- Next steps involve the Implementation of recommendations in selected buildings and sensitization of staff members.



#### **The Residential Sector**

- Exchange of incandescent light bulbs with more energy efficient CFLs to residents in several communities.
- A Pilot Study implemented by UWI to measure the impact of switching to CFLs on the electricity bills of selected residents.



## Compressed Natural Gas (CNG) for Transportation



#### CNG as a major vehicular fuel in Trinidad and Tobago

Phase I	Phase II
2 year period	3 year period
\$500 Mn approved by Cabinet in June 2013	Approx. cost - \$1.57 Mn
Conversion of 17,500 vehicles	Conversion of 82,500 vehicles
22 new CNG stations	50 New CNG Stations
* Ancillary costs (public awareness, marketing, etc.)	

## **Expected Benefits.....**

- ✓ 100,000 vehicles converted over a 5 year period.
- ✓ \$1.7 billion reduction in the liquid fuel subsidy.
- ✓ \$2.7 billion in foreign income from the sale of displaced liquid fuels.
- $\checkmark$  358,000 metric tons reduction in CO<sub>2</sub> emissions.





## **Key Learnings**



- ✓ International cooperation and technical assistance have been beneficial.
- ✓ Collaboration with all relevant agencies should commence at the start for successful implementation of policies and programmes.
- ✓ Public sensitization and buy in is crucial.
- ✓ Periodic review, monitoring and evaluation are important elements which should not be ignored.

## **Thank You**

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