NATIONAL ENERGY CONSULTATIONS-FEBRUARY 28, 2011

Fiscal and Legislative support mechanisms for Renewable Energy and Energy Efficiency

Ms. Lisa-Ann Fraser, LLB (Hons.), LLM
Attorney-at-Law
Energy Associate Professional
Ministry of Energy & Energy Affairs
Fiscal and Legislative Support Mechanisms

‘Greening’ Tobago?

**Fiscal**
- Investment /Tax credits
- VAT reductions
- Import Duty reduction
- Wear & Tear allowance
- Public Benefit Fund
- Clean Development Mechanism (CDM)

**Legislative/Regulatory**
- Open Access
- Feed-in-Tariff
- Net metering
- Minimum Standards
- RE Legislation.
# Fiscal Support Mechanisms

<table>
<thead>
<tr>
<th>Tax Credit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tax Credit</strong></td>
<td>Taxpayer can subtract a portion of costs from the taxes owed</td>
</tr>
<tr>
<td>Production Tax Credit</td>
<td>This incentive is based on the amount of energy produced by a Renewable Energy (RE) system.</td>
</tr>
<tr>
<td>Corporate Tax Incentives</td>
<td>This encourages RE and Energy Efficiency (EE) investments by business.</td>
</tr>
<tr>
<td>Wear&amp; Tear Allowance</td>
<td>This is similar to an investment credit whereby value of the RE/EE asset can be written off over a shorter period of time.</td>
</tr>
<tr>
<td>VAT</td>
<td>This incentive encourages the purchase of RE systems at a lower cost.</td>
</tr>
<tr>
<td>Public Benefit Fund</td>
<td>This provides low-term funding for nation-run energy programs, normally a small fixed fee attached to electricity bill.</td>
</tr>
<tr>
<td>Clean Development Mechanism</td>
<td>This allows public/private sector entities to invest in GHG mitigation projects in developing countries.</td>
</tr>
</tbody>
</table>
Interconnection Issues.

“Open Access” which allows Independent Power Producers (IPP) guaranteed and fair access to the national transmission grid network.
“Feed-in-Tariff (FIT)” - The price paid by the Utility to the RE Generator for the electricity fed into the national grid.

**Advantages**
- Definite market as Utility must acquire a certain % of power from a RE source.
- Pre-determined fixed price or “avoided costs”
- Access to market for RE power generators

**Disadvantages**
- Retail rate increase is passed onto all electricity consumers.
"Net Metering"

Allows an IPP(commercial/domestic) to ‘bank’ power whereby they can draw power from the grid in times of need or sell to the grid in times of excess power generation.
The Government of the Republic of Trinidad and Tobago

"Minimum Standards"

Standardization
Testing
Certification
Metrology
Inspection

- FSECS: Florida Solar Energy Center Standards
- ISO- International Organisation for Standardization
- AS/NZS 2712:2007
- ASTM
# Support Mechanisms

<table>
<thead>
<tr>
<th>Country</th>
<th>Feed-in-tariff</th>
<th>Renewable Portfolio Standard/quota</th>
<th>Capital subsidies, grants, rebates</th>
<th>Investment or other tax credits</th>
<th>Sales tax, energy tax, excise tax or VAT reduction</th>
<th>Tradable RE certificates</th>
<th>Energy production payments or tax credits</th>
<th>Net metering</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EU - 27</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Developed/Transition Countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>(*)</td>
<td>(*)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Russia</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>(*)</td>
<td>(*)</td>
<td>X</td>
<td>X</td>
<td>(*)</td>
<td>(*)</td>
<td>X</td>
<td>(*)</td>
</tr>
<tr>
<td><strong>Developing Countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>(*)</td>
<td>(*)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Caribbean Countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barbados</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jamaica</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grenada</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

(*) means that some states/provinces within these countries have state/province level policies but there is no national-level policy.
**Trinidad and Tobago Fiscal Incentives**

### Solar
- 25% Tax Credit on Solar Water Heaters (SWH)
- 0% VAT on SWH & Solar PV Systems
- 150% Wear & Tear Allowance for SWH, SWH Plant, Machinery and Equipment, and Solar PV Systems
- Conditional Duty Exemptions for SWH Manufacturers.

### Wind
- 0% VAT on Wind Turbines.
- 150% Wear & Tear Allowance for Wind Turbines and supporting equipment.

### EE
- 150% Allowance for the design and installation of energy saving systems by an Energy Service Company (ESCO)
- ESCO can write off value of assets in two years:
  - a) 75% Depreciation on plant, machinery and equipment acquisition;
  - b) 25% Wear & Tear allowance in following year.
**Green Fund**—established to financially assist non-profit organisations concerned with remediation, reforestation and conservation of environment.
Trinidad & Tobago
Legislative Mechanisms

T&TEC Act, Chap 54:70
Regulated Industries Commission (RIC) Act, Chap 54:73

Makes no provision for renewable energy power generation by IPP.

Review of T&TEC/RIC Acts by team to address: open access, grid interconnection, net metering, FIT and necessary regulations and guidelines.
Standards Act, Chap 82:03

Sub-committee established to address introduction of RE and EE applications.

Product Standards, Energy Labelling and Electrical Wiring Code
Trinidad & Tobago
Legislative Mechanisms

RE & EE Legislation

RE Legislation will be shaped by policy, strategy, targets and timeframe needed to create enabling environment.

Adoption of recommended fiscal and legislative initiatives

- Increased market demand for RE and EE
- Attracting new industries
- Creating jobs
- Generating revenue associated with RE capacity and reduced carbon emissions
• Fiscal Support Mechanisms – in place

• Legislative Agenda
  – T&TEC; being reviewed
  – RIC; tariff consultations (April – May), FIT (June)
  – Electrical Inspectorate Division (EID); electrical installations code for RE draft (April)
  – EMA; air quality (revised /final draft)
Thank You