GOVERNMENT POLICIES ON GREEN TECH: CURRENT & FUTURE

MINISTRY OF ENERGY, GREEN TECHNOLOGY & WATER

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Introduction

The current GT policies

Future policies arising from GTMP

Conclusion
“To reduce carbon emission up to 40% in terms of emission intensity of GDP (Gross Domestic Product) by 2020 compared with its 2005 levels”
Current Policies arising from COPA 15

• (i) The National Green Tech Policy – 2009
• (ii) The strategic thrusts
• (iii) MTHPI
Green Technology refers to products, equipment or systems which satisfy the following criteria:

- It minimises the degradation of the environment;
- It has a zero or low greenhouse gas (GHG) emission;
- It is safe for use and promotes healthy and improved environment for all forms of life;
- It conserves the use of energy and natural resources; and
- It promotes the use of renewable resources.
Policy Statement

Green Technology shall be a driver to accelerate the national economy and promote sustainable development.
THE 5 OBJECTIVES OF NATIONAL GREEN TECHNOLOGY POLICY

- To minimise growth of energy consumption while enhancing economic growth;
- To facilitate the growth of the green technology industry and enhance its contribution to the national economy;
- To increase national capability and capacity for innovation in green technology development and enhance Malaysia’s competitiveness in green technology in the global arena;
- To ensure sustainable development and conserve the environment for future generations; and
- To enhance public education and awareness on green technology and encourage its widespread use.
THE 5 STRATEGIC THRUSTS

1. Strengthen the Institutional Frameworks

2. Provide a Conducive Environment for Green Technology Development

3. Intensify Human Capital Development in Green Technology

4. Intensify Green Technology Research and Innovations

5. Promotion and Public Awareness
TOWARDS A LOW CARBON ECONOMY

(i.e. usage of Green Technology as a solution towards the issue of Global Warming)

Low Carbon Economy can be best understood as the range of activities which are materially supported by the need to reduce the release of GHG into the atmosphere

Source : UN, Global Compact
Malaysian National RE Policy

- Enhancing the utilisation of indigenous renewable energy resources to contribute towards national electricity supply security and sustainable socio-economic development

Objectives:

- To increase RE contribution in the national power generation mix;
- To facilitate the growth of the RE industry;
- To ensure reasonable RE generation costs;
- To conserve the environment for future generation; and
- To enhance awareness on the role and importance of RE.
Malaysian National RE Policy and Action Plan 2010

Strategic Thrusts

**Strategic Thrust 1:** Introduce Legal and Regulatory Framework

**Strategic Thrust 2:** Provide Conducive Business Environment for RE

**Strategic Thrust 3:** Intensify Human Capital Development

**Strategic Thrust 4:** Enhance RE Research and Development

**Strategic Thrust 5:** Create Public Awareness & RE Policy Advocacy Programmes
Renewable Energy Development in Malaysia

8th Malaysia Plan (2001 - 2005)

- RE as the 5th Fuel
- 5% RE in energy mix

9th Malaysia Plan (2006 – 2010)

- Targeted RE capacity to be connected to power utility grid:
  - 300 MW – Peninsular Malaysia; 50 MW - Sabah
- Targeted power generation mix:
  - 56% natural gas, 36% coal, 6% hydro, 0.2% oil,
  - 1.8% Renewable Energy
- Carbon intensity reduction target: 40% lower than 2005 levels by 2020

RE as of 30 September 2012

- Connected to the utility grid (as of 2012): 74 MW (25% from 9th MP target)
- Off-grid: >430MW (private palm oil millers and solar hybrid)
## Malaysian National RE Targets

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative RE Capacity</th>
<th>RE Power Mix</th>
<th>Cumulative CO₂ avoided</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>985 MW</td>
<td>5.5%</td>
<td>11.1 mt</td>
</tr>
<tr>
<td>2020</td>
<td>2,080 MW</td>
<td>11%</td>
<td>42.2 mt</td>
</tr>
<tr>
<td>2030</td>
<td>4,000 MW</td>
<td>17%</td>
<td>145.1 mt</td>
</tr>
</tbody>
</table>

Note: RE capacity achievements are dependent on the size of RE fund

- Assumptions:
  - Feed-in Tariff (FiT) implemented
Potential Impact of National RE Policy by Year 2020

- Minimum **RM 2.1 billion savings of external cost** to mitigate CO2 emissions (total 42 million tonnes avoided from 2011 to 2020, on the basis of RM 50 per tonne of external cost);

- Minimum **RM 19 billion of loan values** for RE projects, which will provide local banks with new sources of revenues (at 80% debt financing for RE projects);

- Minimum **RM 70 billion of RE business revenues** generated from RE power plants operation, which can generate **tax income of minimum RM 1.75 billion** to Government;

- > 50,000 **jobs created** to construct, operate and maintain RE power plants (on the basis of 15-30 job per MW).
Energy Efficiency (EE) Role in Energy Policy

Energy Efficiency offers solution on issues related to energy supply and use.

Energy efficiency enhances energy supply security, promotes economic growth and mitigate environmental issues related to energy-use.

Energy efficiency has a prominent role in Malaysia’s energy policy framework.
EE Policy Measures

- **Economic measures** – energy pricing structure, tax, fiscal incentives and etc.

- **Prescriptive measures** – technical standards, building codes, emission limitations or MEPS (minimum energy performance standards), etc.

- **Persuasive measures** – dissemination of information and awareness to create a voluntary behavioural shift among the target audience.

- **Research and development** – to commercialise new energy efficiency technologies and initiatives.
1ST POLICY CHALLENGE

Changing the mindset of the public

Mission:
To provide education, awareness and promotion in the area of GT to everyone through various activities and modes

The imbuing of green lifestyle starts from pre-school right up to tertiary level
Making green financing more accessible

Commercial banks are slow to approve GT projects as credit worthiness screening hinges heavily on historical and established track record plus a steady projected cash flow.

KeTTHA has received many grievances on this shortcoming. It is actively looking into ways and means to alleviate this problem.

Eg: setting up of a Green Bank
GREEN TECHNOLOGY FINANCING SCHEME (GTFS)

- RM3.5 billion soft loan
- Up to RM50.0 million for producers and RM10.0 million for users of green technology
- 2% interest subsidy by the government
- 60% government guarantee
- Approx RM 1.016 billion has been disbursed
- So far 76 companies have benefited
- Effective until 31 December 2015
3rd CHALLENGE

Coming up with feasible fiscal and financial GT development incentives

The Government has kick started some basic and promotional fiscal and financial incentives to spur GT development.

KeTTHA is in the midst of conducting 2 major studies to assess and identify the scope of fiscal incentives and financial assistance to scale up the development of the GT industry.
KeTTHA plans to enhance Research, Development, Innovation and Commercialisation (RDIC) through:

- financial grants or assistance
- establishment of an effective coordinating agency for RDI and Center of Excellence or new research institute for GT development
- smart partnership between the government, industries and research institutions and
- strong linkages between local research institutions and international centers of excellence in GT RDI.
Comprehensive and collaborative level coordination among Ministries, Agencies, the private sector and all other stakeholders.

Currently, the enabling laws lies with individual Ministries.

Studying the possibility of a GT ACT
The Government is working on the Green Technology Roadmap to guide Malaysia towards a low carbon economy.

- Focus on Energy, Waste Water, Building, Transportation, Manufacturing and ICT
- The benchmark for gauging the successful implementation of the GT agenda.
- Assessment for output and outcome plus impact evaluation of the GT agenda.
7th POLICY CHALLENGE

Increasing GT Corporate Social Responsibility

CSR is at a very low hanging fruit level eg solid waste separation at source initiative, fund contribution to green promotions and light green publicity campaigns.

The business community need to contribute more substantively especially the local business community as international corporations are mostly green savvy being rooted in the green CSR back in their country of origin.

KeTTHA will assist in this endeavour by way of facilitation and enabling.
Gradual minimizing of government subsidies in energy and water sectors.

Current energy subsidies and low water tariff which do not reflect cost of supply is counter productive to GT efforts.

GT should be market driven and as such it is very arduous and frustrating to push GT initiatives like energy saving, water conservation and the electric vehicles.
The green political will is affirmative but to cascade it to the business sector is gargantuan.

The traditional and established business sector is slow in accepting transformation.

KeTTHA is cognizant of this challenge but we are continuing to grind for success which we hope will cascade to major breakthrough.
GOVT POLICIES : FUTURE BASED ON GTMP

- DYNAMIC AND FUTURISTIC
- LOW HANGING FRUITS FIRST
- LATER THE OVERARCHING FRUITS
The preparation of Green Technology Master Plan is divided into 6 components:

**Component 1 : Literature Review**
**Component 2 : Economic Assessment**
**Component 3 : Regulatory Framework**
**Component 4 : Financial Mechanism**
**Component 5 : Green Technology Foresight**
**Component 6 : Green Technology Master Plan**
Component 3: Regulatory Framework

- 2 OPTIONS:
  - (i) Status quo – rationalise and refine current affirmative mechanisms
  - (ii) a GT Act – an umbrella consolidating all pertinent GT legal provisions under the various Ministeries/Agencies
Component 4: Financial Mechanism

- Overall financial and fiscal support - policies, tax incentives and grants
- Mechanism to facilitate funding of GT projects eg settling up of a Green Bank
- Legal support eg carbon tax
- Affirmative support via mandatory GT quota eg Bank Negara stipulating GT loan quota and GT CSR for Bursa Saham companies
Component 5 : Green Technology Foresight

• Setting the future scenarios for all 9 sectors
Green Technology Master Plan

- DELIVERABLES:
  - LOW HANGING FRUITS
  - OVER ARCHING FRUITS
  - FAR REACHING FRUITS
CONCLUSION

• Current GT policies, strategies and initiatives are interim awaiting the crafting of the GT Master Plan

• All these will be wholesomely refined once the GTMP is ready by 1st quarter 2014.

• Daunting challenges ahead but the push for green lifestyle and GT applications will be actively pursued.
THANK YOU