Philippines Renewable Energy Policy Updates

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Policy Directions under R. A. 9513

- Accelerate the exploration and development of renewable energy resources
  - achieve energy self-reliance
    - to reduce the country’s dependence on fossil fuels
    - minimize the country’s exposure to price fluctuations
  - adoption of clean energy to mitigate climate change
  - promote socio-economic development in rural areas

- Increase the utilization of renewable energy by providing fiscal and non fiscal incentives;
Renewable Energy Potential

- Geothermal > 4,000 MW

Accelerate the development of the country’s renewable energy resources by providing fiscal and non-fiscal incentives to private sector investors and equipment manufacturers / suppliers.

- Largest producer of coconut oil
- Ranks 10th in world sugarcane production

Source: Philippine Department of Energy/REMB
Policy Mechanisms

- Lowering of investment costs
  - Fiscal Incentives
    - Income Tax Holiday and Low Income Tax Rate
    - Reduced Government Share
    - Duty-free Importation of Equipment and VAT-zero Rating
    - Tax Credit on Domestic Capital Equipment
    - Special Realty Tax Rate on Equipment and Machinery
    - Cash Incentive for Missionary Electrification
    - Exemption from Universal Charge
    - Payment of Transmission Charges
    - Tax Exemption on Carbon Credits
Policy Mechanisms

- Enhanced Competitiveness
  - Mandatory Utilization of RE Resources
    - Biofuels Mandate
    - Renewable Portfolio Standard (RPS)
    - Feed-In Tariff (FIT)
  - Provision of Interconnection / Ancillary Services
- Other Market Options
  - Net Metering Concept
  - Green Energy Option
Renewable Energy Outlook 2011-2030

Under the “National Renewable Energy Program”

Consolidated Milestones

- **2011**: Promulgation of remaining policy mechanisms, rules under the RE Law completed by end-2011.
- **2015**: 1st Ocean Energy facility operational by 2018.
- **2020**: Target additional geothermal capacity of 1,495 MW is reached.
- **2025**: Target additional hydro capacity of 5,394 MW is reached by 2023.
- **2027**: Target ocean power capacity of 70.5 MW is reached by 2025.
- **2030**: Target additional wind capacity of 2,345 MW is reached by 2022.

Implementation of Sectoral Sub-Programs and the Policy and Program Support Component

- **Existing RE capacity, 2010**: 5,438 MW
- **2015**: 7,594 MW by 2015
- **2020**: 12,751 MW by 2020
- **2025**: 15,219 MW by 2025
- **2030**: 15,304 MW by 2030

Targeted RE-based Installed Capacity

Note: The National Renewable Energy Program (NREP) is a live document and will be subjected to public consultations. Figures presented may change based on regular updates of the NREP.
Government Policy

National Renewable Energy Program

- Increase RE-based capacity by 200% within the next 20 years (2011-2030)
- Increase non-power contribution of RE to the energy mix by 10 MMBFOE in the next ten years
- Be the number one geothermal energy producer in the world (additional 1,495 MW)
- Be the number one wind energy producer in Southeast Asia (up to 2,500 MW)
- Double hydro capacity (additional 5,400 MW)
- Expand contribution of:
  - biomass - 265 MW
  - solar - at least 280 MW
  - ocean energy – at least 10 MW
Updates on RE Policy Mechanisms

Renewable Portfolio Standard (RPS)
- Mandatory (percentage) utilization of RE generation system in on-grid systems
  - For Department of Energy’s finalization

Feed-in-Tariff (FIT)
- Priority connection to the grid
- Priority purchase and transmission of and payment for by grid system operators
- Fixed tariff for 20 years
- To be applied for generation utilized in complying with RPS
  - The FIT Rules was promulgated on August 12, 2010.
  - FIT Allowance - FIT-ALL Payment and Collection Guidelines
    - Issued Guidelines on December 2013
    - Amendment of DOE’s installation target
      - The DOE issued a Certification to amend installation targets of Solar Energy Generation (50mw to 500mw) on April 30, 2014 and Wind Energy Generation (200mw to 400mw) on April 24, 2015
Updates on RE Policy Mechanisms

Net-Metering Rules and Interconnection Standards
• Connection / sale of customers’ RE generation to the grid
  • Issued Net Metering Rules last May 27, 2013
  • Continuous conduct of nationwide IEC for LGUs, DUs, consumers

Renewable Portfolio Standards (RPS) for Missionary Areas
• Mandated minimum percentage of RE generation
  • For NREB’s finalization

Green Energy Option Program
• End-users’ option to purchase electricity from RE facilities (open access)
  • For Department of Energy’s finalization
Feed-In Tariff (FIT) Rates

<table>
<thead>
<tr>
<th>RE Technology</th>
<th>FIT Rate ($/kWh)</th>
<th>Degression Rate</th>
<th>Installation Target (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>0.18</td>
<td>0.5% after 2 years from effectivity of FIT</td>
<td>400*</td>
</tr>
<tr>
<td>Biomass</td>
<td>0.144</td>
<td>0.5% after 2 years from effectivity of FIT</td>
<td>250</td>
</tr>
<tr>
<td>Solar</td>
<td>0.21** (0.188)</td>
<td>6% after 1 year from effectivity of FIT</td>
<td>500*</td>
</tr>
<tr>
<td>Run-of-River Hydropower</td>
<td>0.128</td>
<td>0.5% after 2 years from effectivity of FIT</td>
<td>250</td>
</tr>
<tr>
<td>Ocean</td>
<td>Deferred</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

* Amended solar energy installation target from 50 MW to 500 MW and 200 MW to 400 MW for Wind.

**$0.21 is effective until March 15, 2015, while new rate $0.188 was approved by ERC effective until March 15, 2016

1,410 MW

Note: Assumption; $1=Php 46.00
# Feed-In Tariff Monitoring Board (as of September 2015)

<table>
<thead>
<tr>
<th>RESOURCE</th>
<th>FOR NOMINATION / CONVERSION</th>
<th>WITH CERTIFICATE OF CONFIRMATION OF COMMERCIALITY</th>
<th>WITH CERTIFICATE OF ENDORSEMENT TO ERC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO. OF PROJECTS</td>
<td>CAPACITY (MW)</td>
<td>NO. OF PROJECTS</td>
</tr>
<tr>
<td>HYDRO</td>
<td></td>
<td>-</td>
<td>60</td>
</tr>
<tr>
<td>WIND</td>
<td>6</td>
<td>282.55</td>
<td>5</td>
</tr>
<tr>
<td>SOLAR</td>
<td>20</td>
<td>693.81</td>
<td>17</td>
</tr>
<tr>
<td>BIOMASS</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>976.36</td>
<td>88</td>
</tr>
</tbody>
</table>
## Renewable Energy Targets, 2011-2030

<table>
<thead>
<tr>
<th>Sector</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geothermal</td>
<td>220 MW</td>
<td>1,100 MW</td>
<td>175 MW</td>
<td>1,495 MW</td>
</tr>
<tr>
<td>Hydropower</td>
<td>341.3 MW</td>
<td>3,161 MW</td>
<td>1,891.8 MW</td>
<td>5,394.1 MW</td>
</tr>
<tr>
<td>Biomass</td>
<td>276.7 MW</td>
<td>0</td>
<td>0</td>
<td>276.7 MW</td>
</tr>
</tbody>
</table>
| Biofuels       | •DC on E10 in 2011  
•Mandatory E10 to all Gasoline by 2012  
•PNS for B5 by 2014  
•DC on B5 by 2015  
•Mandatory B5 to all Diesel by 2015
| •PNS for B20 & E85 by 2020  
•DC on B10 and E20 by 2020
| •DC on B20 and E85 by 2025
| Wind           | 200 MW     | 700 MW      | 1,445 MW  | 2,345 MW  |
| Solar          | 50 MW      | 100 MW      | 200 MW    | 350 MW    |
| Ocean Power    | 0          | 35.5        | 35        | 70.5      |
| **Total**      | **1,088 MW**| **5,096.5 MW**| **3,746.80 MW**| **9,931.3 MW**|

**Note:** RE Targets under review of NREB to reflect developments on RE sector and the DOE’s issuances of new Installation targets.
Challenges

• Awareness and social acceptance
• Streamlining of Administrative Process
• Full implementation of Policy Mechanisms under the RE Law
The Way Forward

- Full implementation of the Renewable Energy Act
  - Finalization / Approval of Guidelines on other RE Policy Mechanisms (Renewable Portfolio Standard (RPS), Green Energy Option, etc.)
  - Establish Energy Investment Coordinating Center and Linkages with other Government Regulatory Agencies
  - Resource Inventory and Establishment of RE Database
  - Capacity Building / Information, Education and Communication Campaigns
MABUHAY

THANK YOU !!!