ASEAN RE Guidelines

From Policy to Implementation of RE Projects in ASEAN

Webinar – Launching of ASEAN RE Guidelines Web Platform

Arne Schweinfurth

Renewable Energy Support Programme for ASEAN (ASEAN-RESP)

arne.schweinfurth@giz.de

4 December 2014
- ASEAN-RESP
- Rationale for RE Guidelines
- Importance of Administrative Procedures
- The RE Guidelines in ASEAN
ASEAN-RESP: Project Objectives

- To strengthen **effective regional cooperation** on renewable energy in the ASEAN
- To transfer knowledge and experiences on renewable energy within the ASEAN region through **efficient networking**
- To **advise on technical and policy issues** regarding the deployment of renewable energy in the ASEAN member states
- **Partners:** ASEAN Centre for Energy (ACE); GIZ

www.aseanrenewables.info

www.re-guidelines.info
Rationale: Demand vs. Dependency in ASEAN

- Rapidly increasing demand for electricity in the region
  - Demand in South East Asia region is increasing by 4.2% annually
  - Indonesia: 9%

- High dependency on fossil fuels (import)

Electricity generation by source; www.aseanrenewables.info
Rationale: Political targets are set

Target vs. installed capacity of PV and Wind Power

- **Thailand**
  - Wind: 223 MW (2021)
  - Solar: 823 MW (2021)

- **Indonesia**
  - Wind: 1.96 MW
  - Solar: 773 MW (2025)

- **Malaysia**
  - Solar: 18,700 MW (2050)
  - Solar: 1,370 MW (2030)

Source: [www.aseanrenewables.info](http://www.aseanrenewables.info)
Rationale: Policies are in place (examples)

- **Indonesia:**
  Guarantee price for grid-connected PV (tender); Netmetering (discussion); Roof-top PV (discussion); B2B (few)

- **Malaysia:**
  FiT; Roof-top PV; Netmetering (discussion); B2B

- **Thailand:**
  Roof-top PV; Community Scale PV; Netmetering (Discussion); FiT replacing the Adder scheme (Discussion).

- **Philippines:**
  FiT, Netmetering, Roof-top PV, B2B.
Rationale: ASEAN – Policy vs. implementation

- Ambitious RE targets are in place
- Political commitment is given
- RE support policies are developed and implemented
- Regional market integration is advancing
- But: Large scale deployment not fully reached

Tariffs too low? Support mechanisms wrong? Administrative procedures!
Procedures: Administrative procedures as cost factor

- Complex permitting procedures and regulation on grid access hamper market development
- Administrative barriers have a **financial impact** on system costs
- Administrative costs **affect soft costs components** such as capital costs and profit - risk premium!
Procedures: Impact of administration & regulation on RE

Share of soft costs in residential PV system costs

“Soft costs” determine system costs!

**Notes:** US module and inverter prices are based on average factory gate prices for Q4 2010-Q3 2011 as reported by GTM/SEIA with an adder of 10% to account for supply chain costs. Inverter efficiency assumed to be 85%.
**Procedures:** Cost reduction through simple procedures

10% levelized cost saving potential

Simple & transparent permitting procedures can reduce CAPEX costs

---

**Legend**
- Levelized cost saving potential:
  - ■ = up to 10% and more
  - □ = up to 6%
  - □ = up to 4%
  - □ = up to 2%
- Removing growth constraint:
  - ■ = Strong effect
  - □ = Medium effect
  - □ = Small effect

<table>
<thead>
<tr>
<th></th>
<th>WACC+</th>
<th>CAPEX</th>
<th>OPEX</th>
<th>POWER SUPPORT</th>
<th>SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levelized cost saving potential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>10%</td>
<td>&gt;20%</td>
<td>&lt;10%</td>
<td>&gt;10%</td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td></td>
<td>&lt;10%</td>
<td>&gt;2%</td>
<td>&lt;10%</td>
<td></td>
</tr>
</tbody>
</table>

**INCREASING POLICY STABILITY**
1. No retro-active policy changes for existing projects
2. No abrupt policy changes for upcoming projects
3. Simple & transparent permitting & grid access procedures
4. No budget/capacity caps & continual access to support

**APPLYING POLICY STABILIZERS**
5. Support financed off-budget via consumer surcharge
6. (Temporary) government participation
7. Loan guarantees
8. EU enforcement RE directive implementation & Member State support level coordination

Source: RE-Shaping: Towards Triple-A Policies: More Renewable Energy at lower cost
Procedures: Common challenges in permitting procedures

- Many different government levels involved
- Central policy vs. decentral approval
- Differing procedures in different regions
- Involvement of many authorities for minor licences
- Mismatch between size of project and number of licenses (10 MW = 100 kW)
- Regulations in place but not disseminated
- Procedures not ‘bankable’
Procedures: In a nutshell

Making procedures **transparent** and analyzing the administrative procedures and regulation is **key to** further RE development!
Guidelines: ASEAN RE Guideline products

Webportal: Online, links, downloads, easily adjustable (www.re-guidelines.info)

E-Guidebooks: offline, printable, easily editable
Guidelines: RE Guidelines in ASEAN member states

- **Indonesia**
  - Biomass/biogas
  - Mini hydropower (up to 10 MW)
  - Solar PV

- **Philippines**
  - Solar PV (small & large)

- **Vietnam**
  - Biomass

- **Malaysia**
  - Solar PV (small & large)
  - Small hydropower (up to 30 MW)

Implemented by:
**Guidelines: The complete picture**

The Guidelines...

- Offer an easy-to-understand guide on how to develop RE projects;
  - Cover entire development cycle: From site selection until operation and maintenance
  - Visualize through Gantt’s Chart and Flow Chart
- List the documentation required for each step;
- Introduce relevant authorities/legal framework;
- Map associated challenges in each step of RE project development;
- Offer advice on how to overcome the challenges;
- Lay the basis for regional benchmarking and policy advise.
### Guidelines: Target group and beneficiaries

<table>
<thead>
<tr>
<th>Project Developers/Investors</th>
<th>Policymakers/authorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Access to <strong>clear information</strong> on the administrative procedures (relevant authorities, permits...) and become more confident in RE investment;</td>
<td>• Appropriate <strong>tool</strong> to communicate up-to-date information to project developers;</td>
</tr>
<tr>
<td>• Highlight the associated <strong>challenges</strong> in RE project development</td>
<td>• Be aware of the <strong>challenges</strong> faced by the developers;</td>
</tr>
<tr>
<td></td>
<td>• Regional benchmarking (peer learning)</td>
</tr>
</tbody>
</table>
Summary and Discussion

- **Transparency** of procedures first step – *streamlining* indispensable!
- EPC, banks, investors and administrations are getting first experience with PV power plants – use those *experiences*!
- Administrative procedures and related costs can *undermine* any well designed support scheme!
- Streamlining of administrative procedures is the most *cost-efficient measure* to bring down development costs!
- Roof top PV needs other procedures than a large MW power plant – make it *adequate*!
- Countries with streamlined administrative procedures will be in *advantage* in an integrated market!
Thank you!

www.re-guidelines.info

www.aseanrenewables.info