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Renewable Energy Guidelines on Biomass and Biogas Power Project Developoment

Good practice for ASEAN

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- Rationale for RE Guidelines
- The Guidelines
- Summary and Discussion



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Rationale: Policy vs. implementation

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

→ Tariffs too low?

→ Support mechanisms wrong?

→ **Administrative procedures!**



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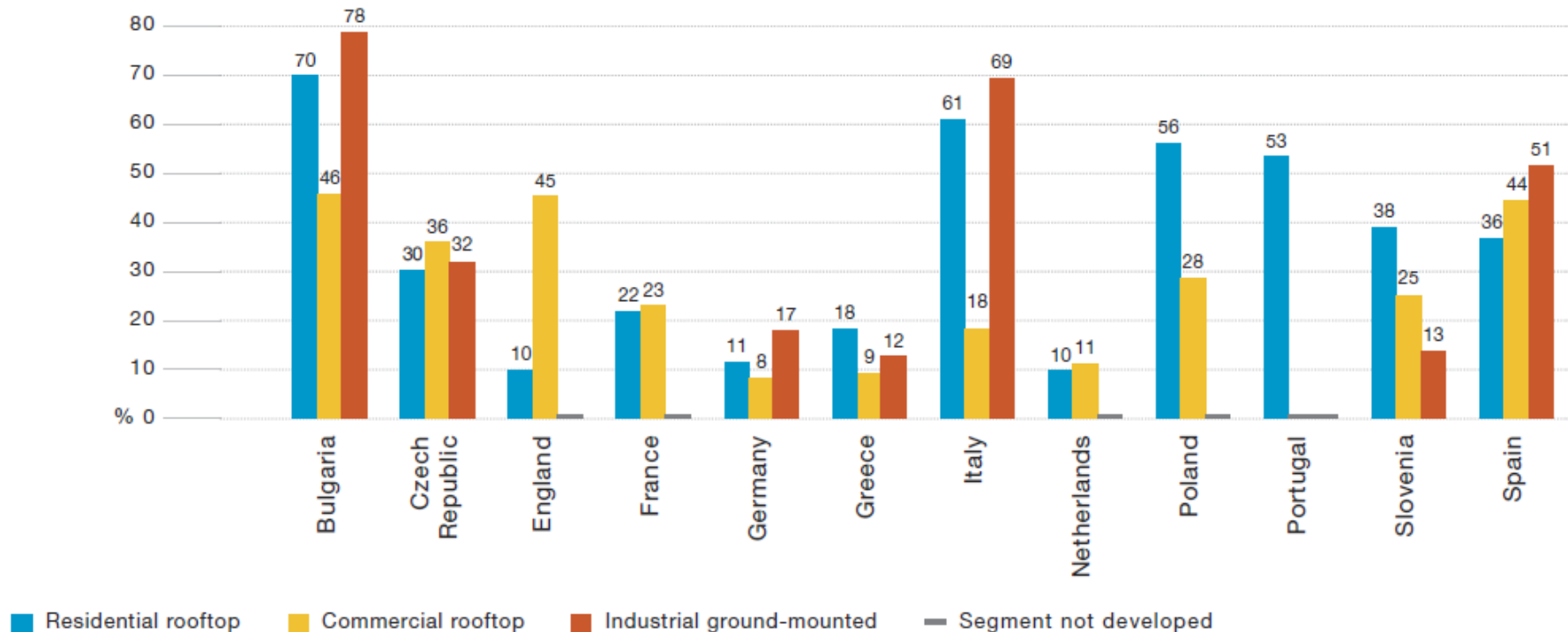
Rationale: Permitting procedures as cost factor

- 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!



Rationale: Impact of administration & regulation on RE

Overall share (%) of legal-administrative costs over total project development costs (excl. PV equipment)

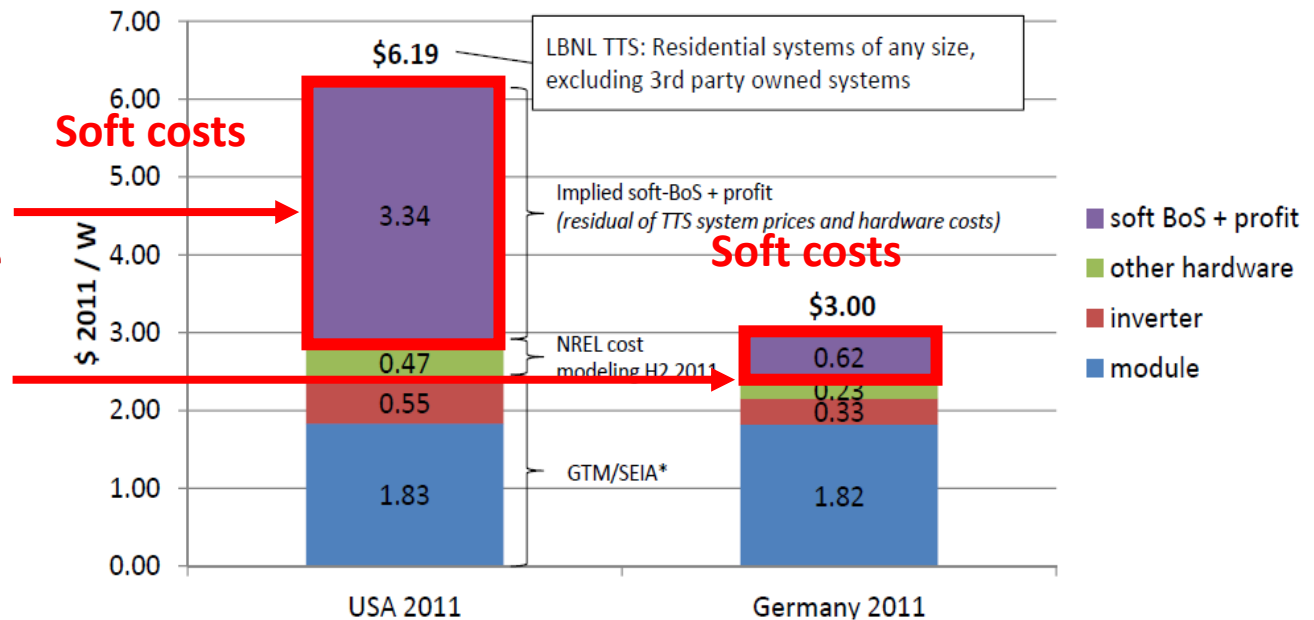




Rationale: Impact of administration & regulation on RE

Share of soft costs in residential PV system costs

Total soft costs for residential PV in Germany, including margin, are just 19% of the implied soft costs for U.S. residential PV (\$0.62/W vs. \$3.34/W)



* **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%.



Rationale: Cost reduction through simple procedures

**10% levelized cost
saving potential**

| Legend | Levelized cost saving potential: | Removing growth constraint: |
|--------|---|---|
| | <div>■ = up to 10% and more</div> <div>■ = up to 6%</div> <div>■ = up to 4%</div> <div>■ = up to 2%</div> | <div>= Strong effect</div> <div>= Medium effect</div> <div>= Small effect</div> |

| INCREASING POLICY STABILITY | | | | | |
|--|---|---|--|---|------|
| 1 No retro-active policy changes for existing projects | ■ | | | ■ | >20% |
| 2 No abrupt policy changes for upcoming projects | | ■ | | ■ | >10% |
| 3 Simple & transparent permitting & grid access procedures | | ■ | | | >10% |
| 4 No budget/capacity caps & continual access to support | | ■ | | | >10% |
| APPLYING POLICY STABILIZERS | | | | | |
| 5 Support financed off-budget via consumer surcharge | ■ | ■ | | | 3% |
| 6 (Temporary) government participation | ■ | | | | 5% |
| 7 Loan guarantees | ■ | | | | 5% |
| 8 EU enforcement RE directive implementation & Member State support level coordination | | | | | |

Simple & transparent
permitting
procedures can
reduce CAPEX costs



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ASEAN: 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'**



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ASEAN: Transparency issues

“Where are *elegible locations*
for the power plant?”

“*How much time* does the
issuing of the environmental
permit take?”

“What are the *costs* to obtain
a temporary production
license?”

“It took me almost *3 years* to obtain
several hundred licenses and
permits!”

“There is a regulation for the local government, but
nobody knows about it”

“That’s not a problem, *just call me!*”



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ASEAN: In a nutshell



Making procedures **transparent** and
analyzing the administrative
procedures and regulation is **key to**
further RE development!

RE Guidelines



Renewable Energy Guidelines on Biomass and Biogas Power Project Development in Indonesia



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Download the guidelines here:
<http://www.re-guidelines.info/>

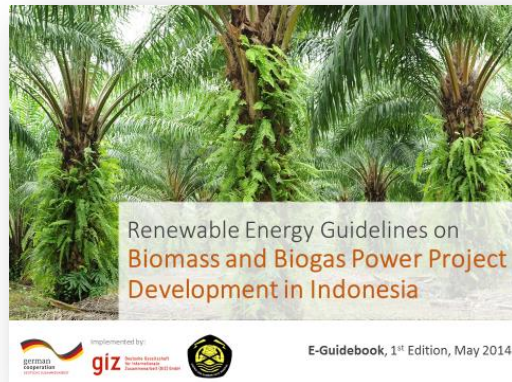


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Guidelines: e-Guidebook & Online Platform

Electronic Guidebook



- PDF Format
- Clickable
- Offline use
- Printable

www.re-guidelines.info

Online Platform



- Online access using any web browser
- Easy to update and maintain
- Link to related resources (reports, studies, regulations...)



Rationale: Why RE Guidelines?

- How is the **process**?
- Where are the **challenges**?
- What are the **requirements**?

Project Developers/Investors

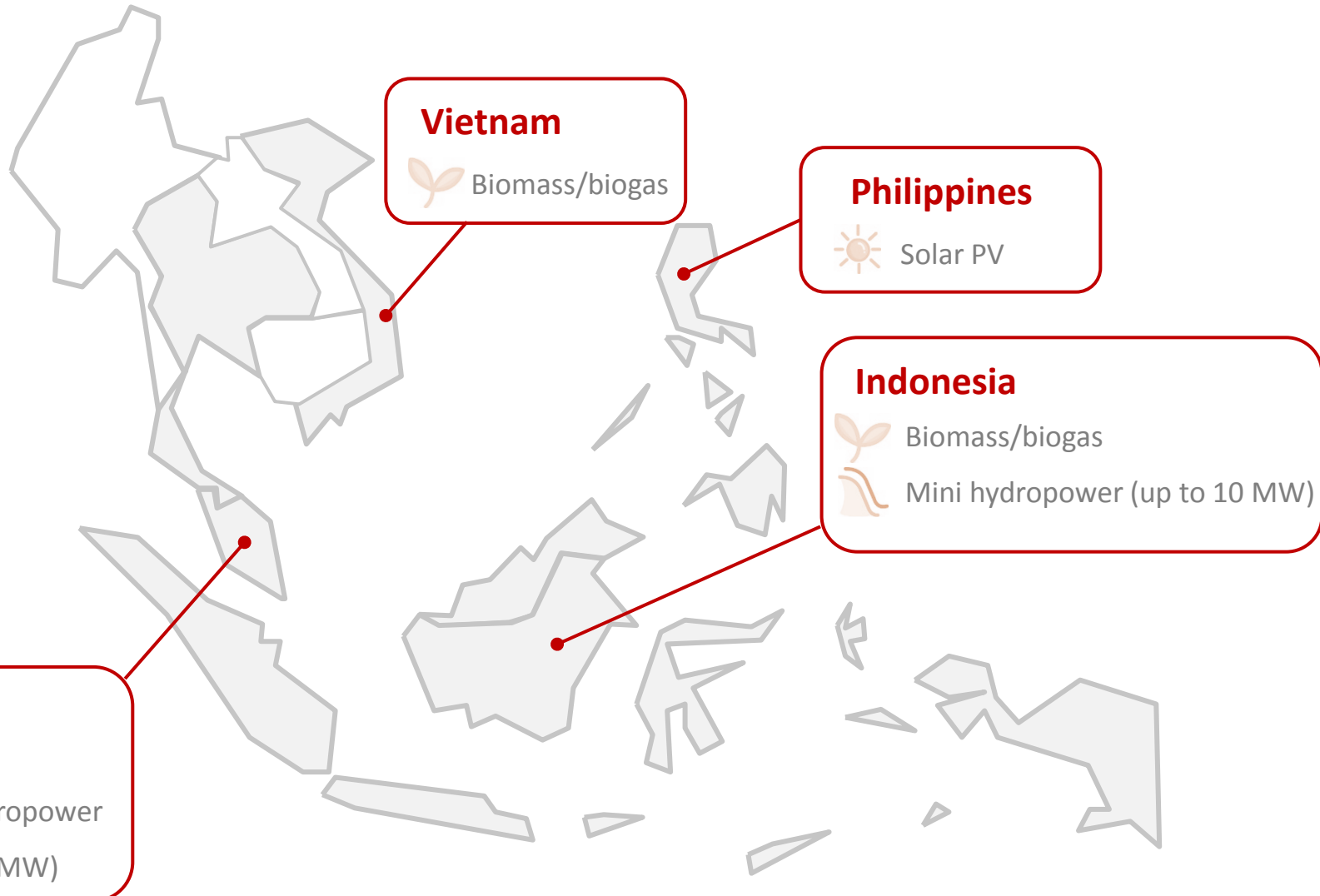
- Access to **clear information** on the administrative procedures (relevant authorities, permits...) and become more confident in RE investment;
- Highlight the associated **challenges** in RE project development.

Policymakers/authorities

- Appropriate **tool** to communicate up-to-date information to project developers;
- Be aware of the **challenges** faced by the developers;
- **Streamline** procedures if possible



Guidelines: Where and what is to be covered?





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Summary and Discussion

- EPC, banks, investors and administrations are getting first experience with RE power plants – its time to look at admin!
- Administrative procedures need to be practiced by all stakeholders to become efficient – allow learning and monitor it!
- Roof top PV needs other procedures than a large MW power plant – make it adequate!
- Countries with streamlined administrative procedures will be in advantage!

Thank you!

www.re-guidelines.info

www.aseanrenewables.info