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Renewable Energy Guidelines on Biomass and Biogas Power Project Developoment

Good practice for ASEAN

How2Guide Bioenergy Expert Workshop, Bangkok, 24 July 2014

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

Rationale: Policy vs. implementation

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

→ Tariffs too low?

→ Support mechanisms wrong?

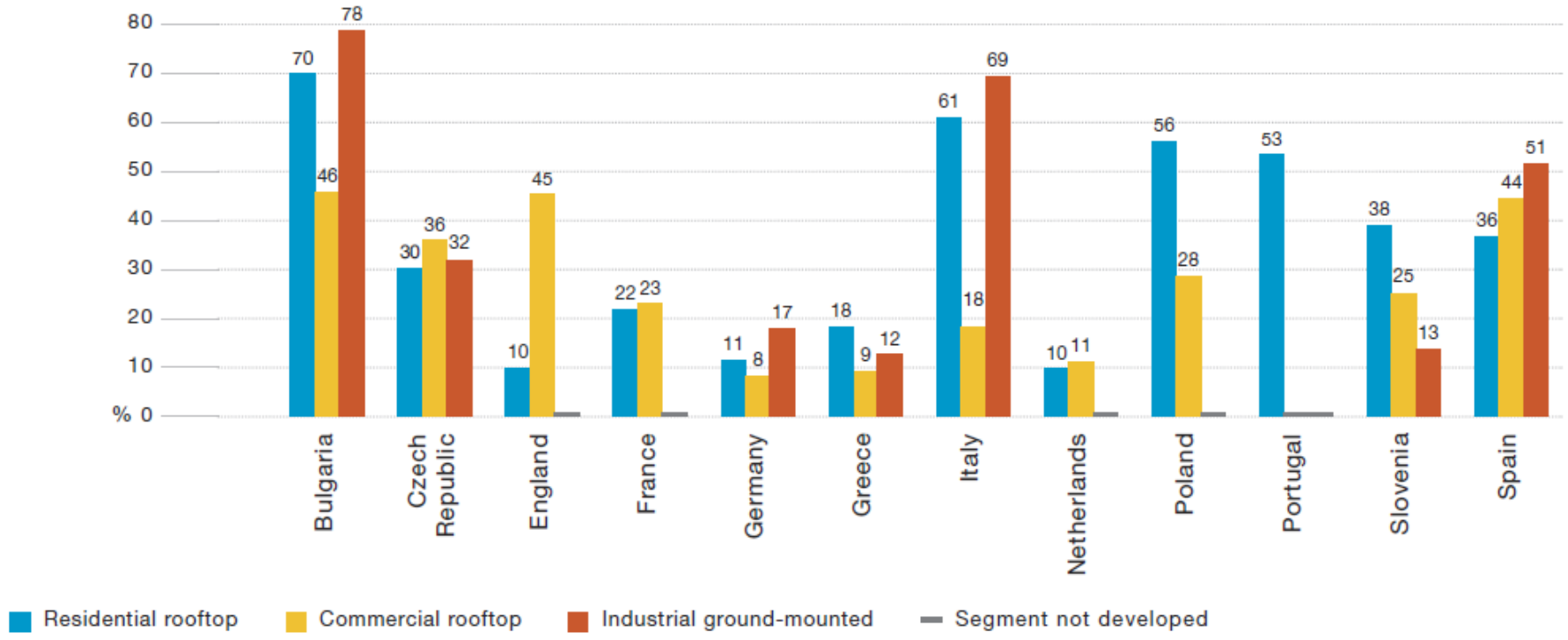
→ **Administrative procedures!**

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)

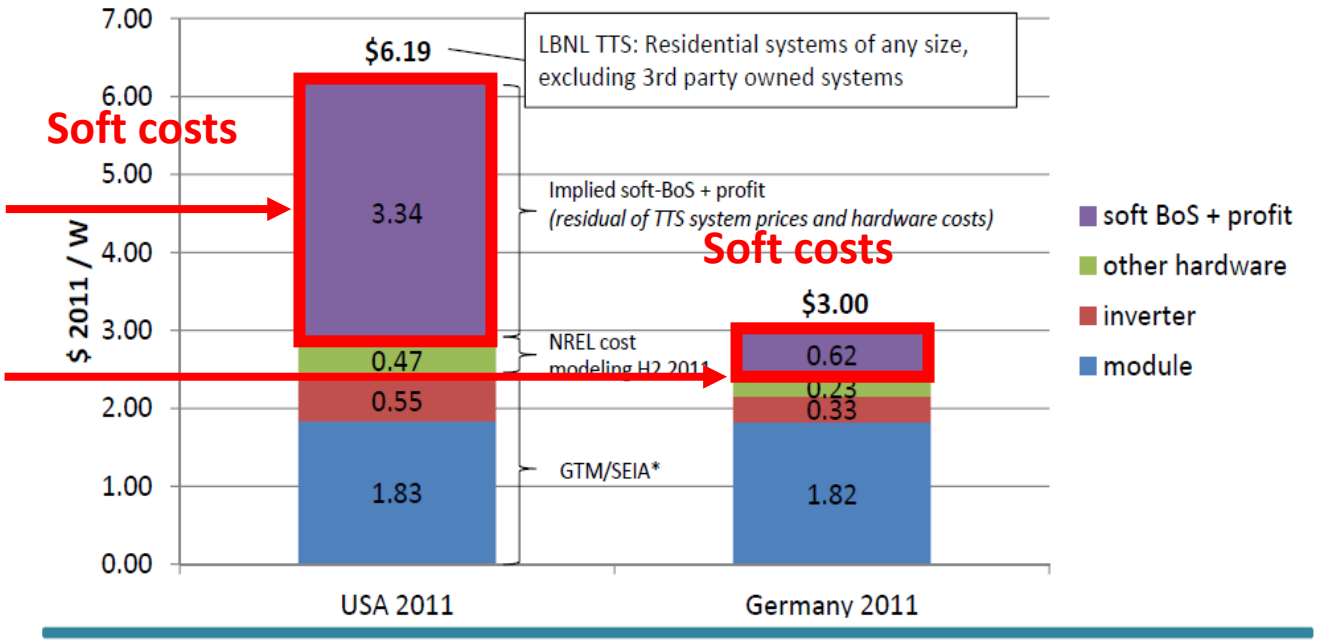


Rationale: Impact of administration & regulation on RE

Share of soft costs in residential PV system costs

"Soft costs" determine 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

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

	Levelized cost saving potential: Cost WACC+	Cost CAPEX	Cost OPEX	Revenue POWER	Revenue SUPPORT	SUM	Removing growth constraint
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							

Source RE-Shaping: Towards Triple-A Policies: More Renewable Energy at lower cost

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 prodcution 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****!"*

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

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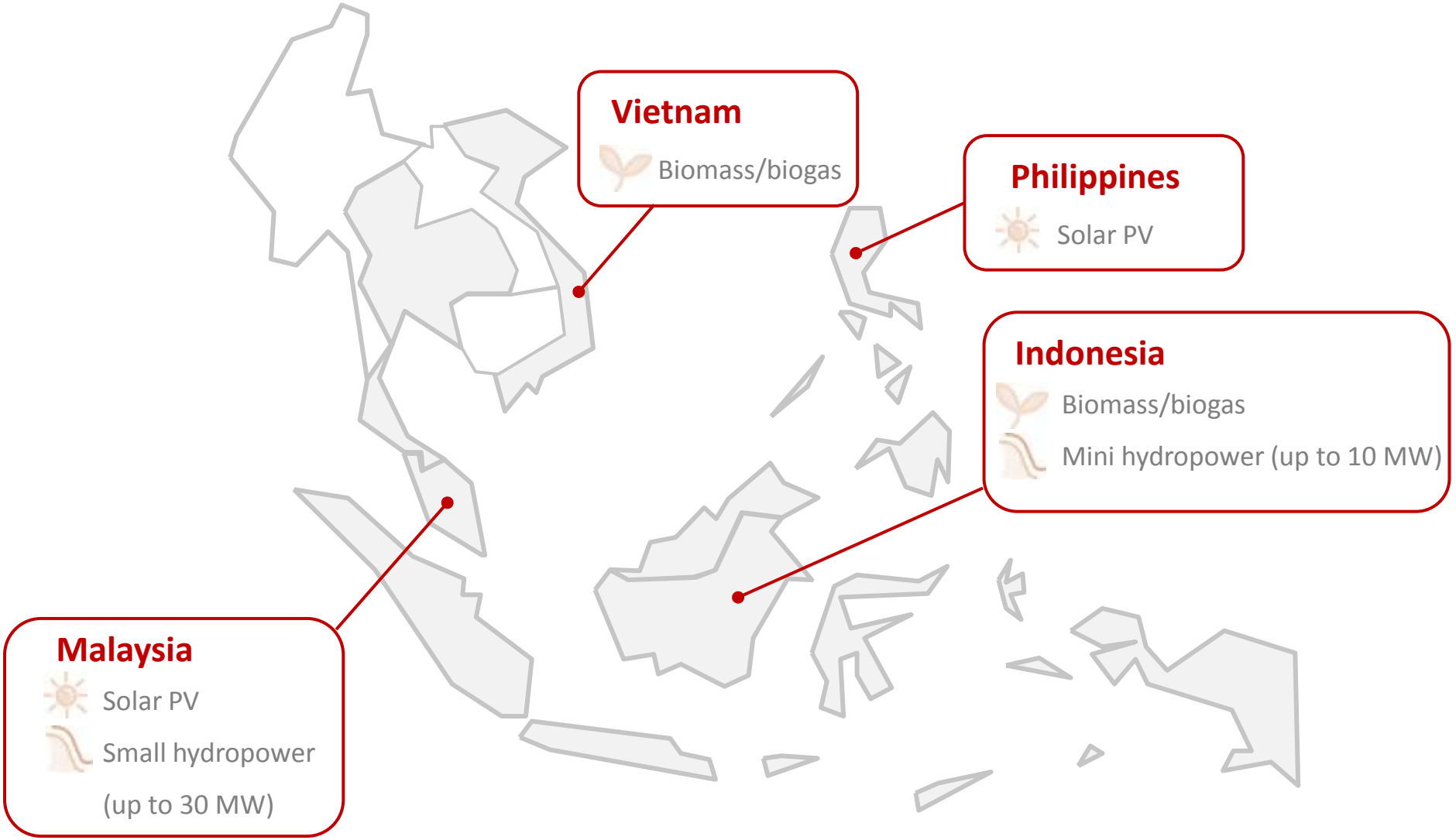
Guidelines: Where and what is to be covered?



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!

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