



ASEAN Good Practices in Renewable Energy

Sharing know-how, experience and information on ASEAN renewable energy development within the region and worldwide

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Southeast Asia's rapid economic growth requires stable and reliable energy supply. ASEAN member states are increasingly focusing on renewable energies (RE) in order to ensure a more sustainable and environment friendly power supply. The Renewable Energy Support Programme for ASEAN (ASEAN-RESP) supports regional cooperation to improve the framework conditions for deployment of renewable energy. **ASEAN Good Practices** aim at sharing know-how, experience and information on ASEAN renewable energy development within the region and worldwide.

Policy recommendation paper on renewable energy permit procedures in ASEAN region



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Published in 2016, the policy recommendation paper is developed by Renewable Energy Support Programme for ASEAN (ASEAN-RESP), a jointly implemented project by the ASEAN Centre for Energy (ACE) and Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ).

The recommendation paper is developed based on identified challenges on permit procedures for renewable energy in ASEAN which were discussed by representatives from ASEAN Member States in Jakarta in 2016. Apart from that, some relevant practical input are also referred to publication series of renewable energy guidelines on country-specific technology in Indonesia, Malaysia, Philippines, and Vietnam.

This factsheet summarises highlights of the policy recommendation paper that comprises of identified issues for renewable energy (RE) development in ASEAN and its issue samples, series of ASEAN RE guidelines and the regional collaboration of its development.

Identified issues for renewable energy development in ASEAN

The recommendation paper highlights on streamlining the procedures based on series of discussions with various stakeholders e.g. government, financing institution, project developers, private sector, academia, and civil society organisation. All recommendations are aimed to face the identified challenges.

Government	1. Perception of renewable energy (RE)
Administration	2. Development procedures 3. High number of involved authorities 4. Complex and lengthy procedures 5. Experience in handling procedures on new and RE technologies
Market	6. Quality standards and availability of certified products 7. Local content
Finance	8. Missing finance products for RE investment of private sector
Support Scheme	9. Bankability of power purchase agreement
Utilities	10. Perception of RE as competitor technology
Industry	11. RE as alternative business
Human Resource	12. Capacity development is needed



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Samples of the identified challenges and recommendations on each issue

Challenges	Recommendations
Government: perception of renewable energy	
RE is not perceived as a viable energy solution and alternative to fossil fired power plants	Develop RE policy and roadmap to reform the electricity supply industry, ensure RE contributes significantly to the energy mix and phase out fossil based power plants
Administration: development procedures	
Lack of transparency in the majority of AMS regarding administrative development procedures for RE	Avoid as much as possible case-by-case procedures. The procedure must be transparent and available in information system
Administration: high number of involved authorities	
Lack of clear distinct competencies and responsibilities of the involved authorities	Streamline procedures, especially regarding the number of involved authorities, and integrate authorities to be in line with the process and take time bounds decisions
Administration: complex and lengthy procedures	
Time consuming and lengthy processes, especially during the administrative development steps	Streamline existing procedures, by accounting for requirements of the individual RE technologies and respective capacity/size
Administration: experience in handling procedures on new and renewable energy technologies	
Lack of comprehensive training of the administrative personnel on the new technologies and related requirements.	Provide comprehensive training to the administrative personnel on the new technologies and related administrative procedures
Market: quality standards and availability of certified products	
The consideration of quality standards is not common and not strictly monitored in AMS	Define applicable international standards, codes and norms adapted to local conditions and publish them with respective guidelines
Market: local content and market development	
Local products, for example PV modules and inverter suffer from competitive pricing due to the higher cost of small manufacturing quantities	Skilled and experienced local companies shall taking over more and more steps of the value chain while maintaining the quality for key components at international standards. This will ensure quality yield
Finance sector: missing finance products for RE investments from the private sector	
Only traditional finance products available which require high collaterals; non-recourse finance products for larger projects are not available	Innovate new mechanism and offer specific products for RE finance: soft loans of different type and size
Support scheme: bankability of power purchase agreement (PPA)	
PPA in some countries are not bankable, and not accepted as security (collateral) because of the financial weakness of the utility	state bank or government can provide additional guarantees for payments or loans to compensate/bridge the gap
Utilities: perception of RE as competitor technology	
Grid access prohibitive for third parties to avoid system instability, breakdowns and blackouts	Existing grid must be developed in order to take increased share of RE micro-grids (MGs) especially for remote communities into business model
Industry: RE as alternative business	
Management is not aware of RE technology and advantages	Government incentive to migrate industry from a brown to green economy
Human resource: capacity development is needed	
RE market has not been developed effectively due to limited numbers of skilled personnel available	Implement capacity building programmes and training institutions by nodal authorities.



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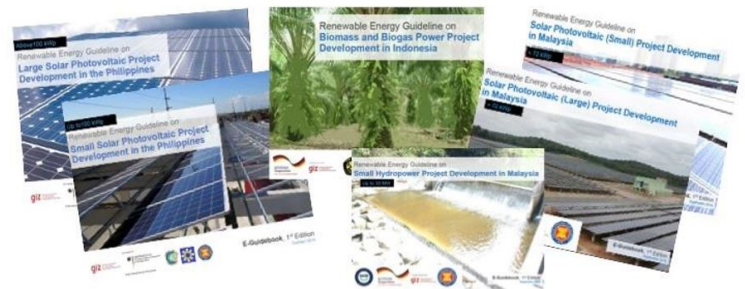
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Series of ASEAN RE guidelines

The ASEAN RE guidelines were developed to facilitate development of RE in ASEAN Member States through improving policies and procedures resulting in an increase in private sector activity and investment in the RE sector. Since the confidence of project developers and investors is needed in order to boost RE deployment in the region, the provision of transparent project development and permit procedures is a necessity.

The ASEAN RE guidelines were developed to meet the needs of project developers/investors, as well as promote transparency and clarity. The guidelines define various steps and procedures also help identify risks embedded in each step, to design and implement proper mitigation measures.



The ASEAN RE guidelines...

- ⇒ Highlight administrative procedures, requirements for project developers and/or investors;
- ⇒ List legal and regulatory provisions as well as necessary permits;
- ⇒ Identify country-specific challenges for project development;
- ⇒ Provide information on how to obtain financial closure.

The structure of the ASEAN RE guidelines for RE development follows the generally observed procedures starting from site identification, through administration and institutions considering promotion schemes like FiT, project finance, implementation and operation. RE guidelines were developed based on the experiences from the development of projects in the identified countries.

The necessary steps involved in the development of the guidelines focused on the challenges and their solution in the form of possible recommendation. Addressing challenges based on recommendation is not only exhaustive and lengthy procedures but also requires intensive coordination between concerned departments; other challenges include low FiT for bankability of the project, experience with under performance. These RE guidelines identify inherent challenges on administrative and technical issues in technology development.

As per April 2017, ASEAN RE guidelines has been developed and published in the following countries:

Country	Technology project	Specification	Year of publication
Indonesia	Biomass/Biogas	General	2014
Philippines	Solar Photovoltaic	Small (up to 100 kW)	2015
Philippines	Solar Photovoltaic	Large (above 100 kW)	2015
Malaysia	Solar Photovoltaic	Small (up to 72 kW)	2016
Malaysia	Solar Photovoltaic	Large (above 72 kW)	2016
Malaysia	Hydropower	Small (up to 30 MW)	2016
Vietnam	Wind Power	Project development	2016
Vietnam	Wind Power	Project financing	2016



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The series of ASEAN RE guidelines: a collaboration between bilateral and regional projects

Promotion of Least Cost Renewables in Indonesia (LCORE)

Based in Jakarta, LCORE advises the government of Indonesia to develop practical policies and promote programs to increase the use of renewable energy and thereby effectively contribute to the national climate change strategy. Funded by Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the project is jointly implemented with Directorate General of New and Renewable Energy and Energy Conservation on behalf of the Ministry of Energy and Mineral Resources Indonesia. LCORE assists DG-NREEC in the development of RE guidelines on biomass biogas power project in Indonesia. Further information, please contact Mr. Karl Segschneider (karl.segshneider@giz.de).

Support to the Philippines' in Shaping and Implementing the International Climate Regime (SupportCCC II)

Based in Manila, SupportCCC II advises the climate change commission and other key stakeholders in the Philippines ensure coherent implementation of climate change policy at national and sub national levels and contribute to the further development of the international climate change regime. Funded by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the project is jointly implemented with Philippines Climate Change Commission in cooperation with Department of Energy, Housing and Land Use Regulatory Board. SupportCCC II led the collaboration of the series of RE guidelines on solar PV in the Philippines. Further information, please contact Mr. Michael Vemuri (michael.vemuri@giz.de).

MOIT/GIZ Energy Support Programme in Vietnam

Based in Hanoi, MOIT/GIZ energy support programme supports the Ministry of Industry and Trade (MOIT) and its General Directorate of Energy (GDE) in developing 'wind power project development: project development and finance'. Under the project "Support to the Up-Scaling of Wind Power in Vietnam", MOIT and GIZ work together to establish legal and regulatory frameworks that encourage (private) investments into wind power, support developing capacities in the public and private sector through short- and long-term trainings, and contribute to increased research and private sector cooperation between Germany and Vietnam. The project runs from 2014-2018 with funding from the Federal Ministry for Economic Cooperation and Development (BMZ) under its German Climate Technology Initiative (DKTI). Further information on this project, please contact: Mr. Tobias Cossen (tobias.cossen@giz.de), Ms. Mai Vu Chi (mai.vu@giz.de).

Renewable Energy Support Programme for ASEAN (ASEAN-RESP)

Based in Jakarta, Indonesia, Renewable Energy Support Programme for ASEAN (ASEAN-RESP), jointly implemented by the ASEAN Centre for Energy (ACE) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry of Economic Cooperation and Development (BMZ), supports regional cooperation to improve the framework conditions for deployment of renewable energy. The project supports the realisation of the ASEAN Plan of Action on Energy Cooperation (APAEC) and encourages ACE and the ASEAN member states to fulfil their vision of a greener region. ASEAN-RESP has been cooperating with AMS since 2011. ASEAN-RESP coordinated the regional collaboration as well as led the development of RE guidelines Malaysia. Further information, please contact Ms. Maria-Jose Poddey (maria-jose.poddey@giz.de), Ms. Badariah Yosiyana (yosiyana@aseanenergy.org).

Published by Renewable Energy Support Programme for ASEAN (ASEAN-RESP)

Directorate General of Electricity (DGE)
ASEAN Center for Energy Building, 6th floor
Jl. H.R Rasuna Said Block X-2 Kav.7-8
Jakarta 12950, Indonesia
T (62) 21 527 8025
F (62) 21 527 7762

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