

AGEP

ASEAN-German Energy Programme

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EDITION

A quarterly newsletter that shares know-how, experience and information on renewable energy and energy efficiency & conservation in ASEAN and beyond

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Dear Renewable Energy & Energy Efficiency Community,

Welcome to the second edition of ASEAN-German Energy Programme (AGEP) Newsletter! Since we last met, AGEP has kicked off its activities with the cooperation of the ASEAN Member States (AMS). As implementing partners, the ASEAN Centre for Energy (ACE) and GIZ have been working together to finalise details with focal points at the AMS. Activities to exchange knowledge and share experience are ongoing. AGEP has been involved in different forums both on renewable energy (RE) and energy efficiency and conservation (EE&C).

This edition brings to you summaries of our input gathering workshops with the AMS and our participation in different forums. We hope you gain knowledge and perspective from our Newsletters. We also hope, **for those of you who are celebrating Eid in some ASEAN Member States, that you have lovely celebrations with your families and friends.**
Happy Eid and enjoy!



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EE&C:

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Implemented by:



Bringing Forward Collective Ideas on ASEAN Energy Efficiency

ASEAN Plan of Action for Energy Cooperation (APAEC) 2016-2025 envisages 20 percent reduction in energy intensity by 2020 and 30 percent by 2025 based on 2005 level. To support the ten ASEAN Member States in achieving the target, ASEAN Centre for Energy (ACE) and GIZ through ASEAN-German Energy Programme (AGEP) jointly conducted a workshop related to their planned activities on energy efficiency and conservation (EE&C) with the ASEAN EE&C Sub-sector Network (SSN) focal points on 4 May 2017 in Manila, the Philippines.



Credit: the Philippine DOE

The workshop aimed to gather inputs on AGEP's EE&C-related activities from 33 representatives of Malaysia, Myanmar, Lao PDR, the Philippines, Thailand and the ASEAN Secretariat. The Philippine Senior Officials on Energy Leader, Mr. Jesus Cristino P. Posadas and ACE Executive Director, Dr. Sanjayan Velautham were present in the workshop.

The workshop used the 'world café' methodology, that connects diverse perspectives among the participants. This methodology allows participants to move around different 'stations' to actively contribute their thoughts during a set time. There were 3

stations dedicated to discuss 3 different AGEP's activities: development of green building code for new and retrofitted buildings; development of financial support mechanism for sustainable EE&C implementation in ASEAN; and the promotion of RE and EE&C benefits in the region. The stations were separated so participants could focus on the different opportunities and challenges of each of the AGEP's activity presented in the workshop. The inputs that were gathered from this workshop were concrete and valuable for the implementation of these 3 activities.

On the next day, current status and progress of AGEP's EE&C activities were presented during a session in the 21st EE&C-SSN Annual Meeting. Although the programme just started in the middle of 2016, the SSN focal points conveyed positive feedback to AGEP and support its further implementation with ACE. (IC)

Credit: the Philippine DOE



The Transformative Role of Renewables in Southeast Asia

During the Asian Development Bank (ADB)'s Asia Clean Energy Forum 2017, AGEP participated in a Deep Dive Workshop organised by the ASEAN Centre for Energy (ACE) together with the International Renewable Energy Agency (IRENA). The event was held at ADB Headquarters, Manila, the Philippines, on 6 June 2017. Raising the topic of 'The Transformative Role of Renewables in Southeast Asia', the workshop highlighted ASEAN's commitment to reach the target of 23% renewable energy (RE) share by 2025.

Prior to this workshop, ACE and IRENA had worked together on a joint report, *Renewable Energy Outlook for ASEAN: A REmap Analysis*, which received support from the previous project jointly implemented by ACE and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ). The report outlines how the region can meet its RE target share by 2025. The results of this publication show how RE potential in the region could lower the overall costs of development, reduce the CO2 emissions, and create more jobs opportunities. The key findings of *the RE Outlook for ASEAN* provide guidelines on how the ASEAN Member States (AMS) can accomplish their regional target of 23% RE share by 2025.

In this Deep Dive Workshop, Ms. Maria-José Poddey, Principal Advisor for AGEP, GIZ, shared the lessons learned from GIZ's cooperation with ASEAN; multiple options and diversified approach are needed due to the diverse conditions of the AMS. Her presentation concluded that RE potential in ASEAN remains untapped, therefore supporting further

development is necessary to reduce disparities among the Member States.

Beni Suryadi, ACE Acting Manager of Policy Research and Analytics Programme shared about the efforts to reach the ASEAN's 23% aspirational target. Several ACE studies and publications, including *ASEAN Renewable Energy Policies and Levelised Cost of Electricity of Selected Renewable Technologies in*



Credit: GIZ



Credit: ACE



Credit: ACE

the ASEAN Member States, which were supported by the previous ASEAN-German programme were also discussed. Report on RE Policies in ASEAN showed the policy impacts of each AMS on RE investment and deployment. Levelised cost study also showed the tendency of renewables to become more competitive in the region. (PA/NS)

AGEP in 24th ASEAN RE-SSN Meeting

As renewable energy (RE) is within the scope of the ASEAN-German Energy Programme (AGEP)'s activities, the programme feels the need to consult the ASEAN Renewable Energy Sub-sector Network (RE-SSN) in finalising the details to implement RE-related activities. As was the case in the Energy Efficiency and Conservation Sub-sector Network (EE&C-SSN) Annual Meeting in May (Manila, the Philippines), AGEP also organised an input-gathering workshop during the 24th RE-SSN Annual Meeting in Singapore, on 14 June 2017. The workshop was organised with the same methodology: the world café. Participants were asked to provide inputs that would assist the planning for the following activities:

- 1) Enhancing RE policy in ASEAN;
- 2) Promote benefits of RE and EE&C in ASEAN;
- 3) Support the development of RE project financing;
- 4) Empower the ASEAN R&D network on RE.

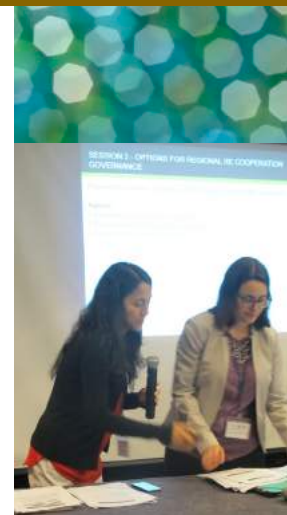
On the same day, AGEP organised a focus group discussion (FGD) related to energy cooperation in ASEAN. Two consultants from Ecofys German office facilitated the FGD. Ecofys is a Netherland-based consultancy

firm in renewable energy, energy & carbon efficiency, energy systems & markets and energy & climate policy. Ecofys firm in Germany is tasked by AGEP to produce a study on ASEAN RE Cooperation, under AGEP activity RE-1: Enhancing RE policy in ASEAN. The FGD aimed to verify previous assumptions of the study on regional RE cooperation efforts, and to fill the gaps in those assumptions, by digging information from the participants.

Results from both the AGEP workshop and the FGD were compiled and presented to all RE-SSN's focal points the next day during their Annual Meeting. Ms. Maria-José Poddey (Principal Advisor for AGEP, GIZ) explained to the RE-SSN focal points from Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore and Thailand that AGEP would use the inputs in the planning and implementation of the four activities. Ms. Poddey also explained that the programme is on track in supporting the ASEAN Member States under the framework of the ASEAN Plan of Action for Energy Cooperation 2016 -2025.



Credit: ACE ▲



Credit: GIZ ▲



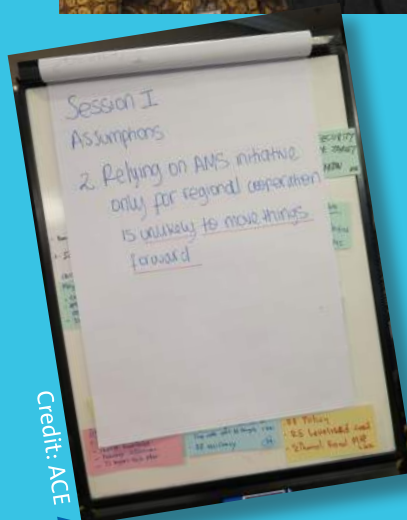
Credit: GIZ ▲



Credit: GIZ ▲



Credit: EMA ▶



Credit: ACE ▼

Credit: GIZ ▶



The Power of Renewables in Investment

On 17 April 2017, ACE has successfully held its first Expert's Lecture. Arranged by Policy Research and Analytics Programme, this valuable learning experience is planned to be conducted every 3 months. Matthew Wittenstein, an energy analyst on Power Market Division from IEA, was invited to talk about investment in the power sector to about 12 participants from ACE and GIZ. Mr. Wittenstein explained the three main drivers of power market investment: to expand access and/or to meet rising demand; to ensure electricity security; to meet broader social goals such as environmental sustainability and job opportunities. In his presentation, he explained that according to IEA's *World Energy Outlook*, the global power investment reached US\$19.2 trillion in 2015,

with 42% contribution from the transmission and distribution sector. He also highlighted the 450 Scenario which concentrates on limiting the global temperature increase to 2°C by capping the greenhouse gases (GHG) concentration in the atmosphere to around 450 parts per million of CO₂.

Generation cost is one of the most important keys to be considered when it comes to the investment in the power sector. It is commonly measured by levelised cost of electricity (LCOE) which refers to the per kilowatt-hour price that a plant has to earn in order to recover all of its costs over its lifetime. In the lecture, Mr. Wittenstein brought up the

inability of LCOE to capture the entire cost or value of renewable generation due to its characteristics such as variability and limited dispatchability. LCOE also ignores the strengths and weaknesses of different renewable energy (RE) technologies such as particular time to run, the requirement for specific location, and its responsiveness to changes in the system. However, he also stated that LCOE is still considered to be a practical calculation and that the variability of RE can be overcome to some degree by diversifying power generation.



Wind Farm in Guimaras Island, the Philippines. Credit: ACE.

At the end of the session, Mr. Wittenstein stated that the power sector is key to decarbonisation by supporting low-carbon investments in new generation. It is confirmed by *World Energy Outlook Special Report* in 2015 that around 40% of global

energy-related CO₂ emissions came from the power sector. The report says that investment in the power sector had been constant from 2011 to 2015, but the actual numbers showed that over that same period, there was a global increase in renewable capacity and generation by 40% and 33% respectively. In addition, the 450 Scenario also shows that between 2026 and 2040, 65% of global average annual investment by low-carbon power technologies came from variable renewables (i.e. solar PV and wind). Therefore, although it is potentially challenging for wholesale markets, decarbonisation should continue to be the key driver of power sector investment. (MW)



Solar PV. Credit EIDPMO, Brunei Darussalam.

The Indonesia Energy Efficiency and Conservation Conference & Exhibition

The Indonesia Energy Efficiency and Conservation Conference & Exhibition (IEECCE) was held on 9-10 May 2017 at Jakarta Convention Centre, organised by the Indonesian Energy Conservation and Efficiency Society (IECES- MASKEEI). IEECCCE is a 2-day international event and the first major event dedicated to energy conservation & efficiency (EE&C) in Indonesia. The objectives are to respond to challenges and opportunities in Indonesian EE&C, to explore business opportunities in clean energy development in Indonesia and Southeast Asia, to obtain meaningful inputs from international experts to produce effective policies and strategic efforts, and to learn from the most current EE&C technology and innovation through a major exhibition.



Credit: ACE.

The ASEAN Centre for Energy (ACE), GIZ's co-implementer for AGEP, participated in the event. Dr. Sanjayan Velautham, ACE Executive Director, delivered a presentation on *Transforming ASEAN Energy System*, during Breakout Session 4: Regional EE&C Market Opportunities. He provided the overview of ASEAN energy, and how ASEAN Member States are targeting to reduce energy intensity by 20% in 2020 based on 2005 level. To support ASEAN's action plans towards the achievement of that target, AGEP is implementing activities on EE&C Financing Mechanism & Green Building Codes, and to develop regional green building code for new and retrofitted buildings in ASEAN. (AJ)



Credit: ACE.

The Role of ESCOs in ASEAN

The ASEAN Centre for Energy (ACE) has developed a report which highlights the importance of energy services companies (ESCOs) and related ongoing initiatives. The ASEAN Member States (AMS) have recognised that ESCOs can play a significant role to unleash the potentials of energy efficiency (EE) in ASEAN. According to the Joint Research Centre (JRC) of the European Commission and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, ESCOs are defined as, 'a person or legal entity that delivers energy services and/or other energy efficiency improvement measures in a user's facility or premises, and accepts some degree of financial risks in doing so.' ESCOs are expected to implement the EE projects more systematically and professionally by involving all stakeholders and key players, such as ESCO associations and banks. Regulatory frameworks to guide and promote ESCOs are needed in ASEAN.

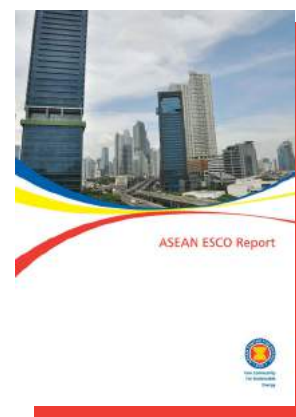
In 2015, a joint report on ASEAN ESCOs was initiated by ACE and Korea Energy Economics Institute (KEEI). The report assessed the status of ESCOs development in the AMS. Consequently, the 20th Energy Efficiency and Conservation Sub-sector Network (EE&C-SSN) Meeting held on 6 May 2016 in Nay Pyi Taw, Myanmar, tasked ACE to further develop the report to become the source of information for an



action plan under the ASEAN Plan of Action for Energy Cooperation (APAEC) 2016-2025 Programme Area No. 4: Energy Efficiency and Conservation, Outcome-based Strategy 2: Enhancing private sector participation including Energy Service Companies (ESCOs) for EE&C promotion. Thus, the scope of the report includes existing policy instruments to support ESCO development, such as financial incentive and the promotion of energy performance contracting (EPC) as a trustworthy business model.

The report shows that regulatory support and financial incentives are key components to encourage investments in ESCO projects. Only when specific ESCO regulatory support and financial incentives exist, proper ESCO development could be anticipated, as it happened in Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam. Even though all AMS have put EE as the core of their energy policies, only a few have included ESCO promotion in their specific national EE regulations.

Another successful practice is to establish EPC as business model. EPC has the following benefits: i) It guarantees the energy savings and/or provision of the same level of energy service at a lower cost; ii) Its remuneration is directly tied to the energy savings achieved; iii) It can support access to finance by providing a guarantee for the energy savings of a project. Moving forward, The ASEAN Centre for Energy will assess the market potential that can be derived from ESCO project financing scheme. (RJPS)



DISCLAIMER:

Any links to external websites and/or not from GIZ, ACE, and AGEF are provided as a courtesy. The linked materials should not be construed as an endorsement by AGEF.

We always look forward to your news and articles on RE & EE.
Let's get connected with RE and EE community in ASEAN and beyond!

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