

AGEP

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ASEAN-German Energy Programme Newsletter



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Editorial Note

Dear readers

Every story has a beginning and an end. Our ASEAN-German Energy Programme (AGEP) will be completed soon, with all of its planned activities, trainings and publications currently being wrapped up.

For more than a decade, Germany has been supporting ASEAN Centre for Energy (ACE) in driving the energy transition agenda in the ASEAN region. It included building up renewable energy and energy efficiency initiatives and helping ACE in its role as a regional centre of excellence for sustainable energy. The last page of this newsletter includes a recap of our cooperation milestones since 2007. Of course, there is much more work across the region, and Germany and GIZ will continue providing support to the ASEAN countries in pursuing their energy transition. But we also realize that our journey as AGEP is completed, and our goals are achieved.

In this final edition of our newsletter, we would like to share several updates, including the launch of ACE's flagship publication supported by GIZ, the 7th ASEAN Energy Outlook (AEO7). On 29 November, we also organised back-to-back launches of two important studies – one on the renewable energy financing schemes in ASEAN and another one on the biogas-to-electricity development. We hope these three publications will provide practical information for ASEAN Member States' government officials and will benefit national socio-economic development, aligned with the regional renewable energy targets.

The AGEP team thanks all readers of our newsletters for being part of our journey and invites you to read our previous works and stories at agep.aseanenergy.org. We also invite you to join our online celebration with testimonials and remarks from our partners early next year.

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Phase II

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The 7th ASEAN Energy Outlook (AEO7): Key and Official Reference for Energy Cooperation in the Region

The 7th ASEAN Energy Outlook (AEO7) was launched at the 40th ASEAN Ministers on Energy Meeting (AMEM) on 15 September 2022 in Phnom Penh, Cambodia. This outlook serves as a complementary document for the ASEAN Plan of Action for Energy Cooperation (APAEC) by creating four different pathways up to 2050 to achieve the set targets. It was developed by the ASEAN Centre for Energy (ACE) in collaboration with national experts from ASEAN Member States (AMS) and guided by the ASEAN Regional Energy Policy and Planning Sub-sector Network (REPP-SSN). The launch of this flagship publication also received special recognition from the German Ambassador to Cambodia, Mr. Stefan Messerer, who believes that the AEO7 will become one of the primary key references for policymakers and all stakeholders in ensuring secure, accessible, affordable, and sustainable energy in the region.

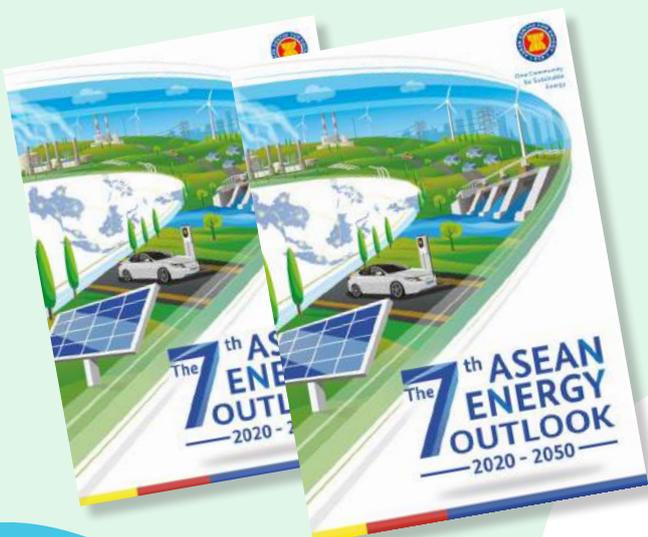
In this edition, AEO7 introduced the Least-Cost Optimisation (LCO) Scenario, which considers cost-effectiveness, affordability, and technology maturity to fulfil electricity demand in evaluating potentially viable technologies in ASEAN emerging economies. The study also explores several thematic chapters related to assessing measures for energy resilience, which include exploring technologies for grid integration and interconnection, utilising fossil fuels during the transition, improving

industrial efficiency, enhancing dispatchability of renewable energy, financing energy transition, and managing the safety and social acceptance of nuclear power.

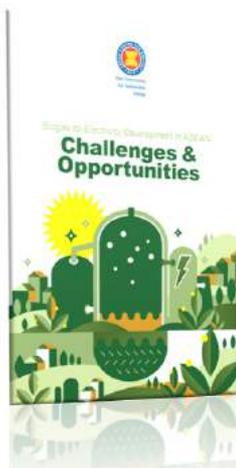
In the following month, ACE conducted a webinar to follow the AEO7 launch. This virtual discussion provided insights into each perspective from three pillars of ACE, namely, energy modelling and policy planning (MPP), renewable energy and energy efficiency (REE), and power, fossil fuel, and alternative energy (PFS). The speakers mentioned that ASEAN will continue its energy demand growth, around three times of 2020 level by 2050. It also highlighted the crucial role of batteries and energy storage and how the industry and transport sector will be the highest energy-consuming sector by 2050.

On 13 October 2022, the AEO7 team got the opportunity to present some of the key findings at the Indonesia Sustainable Energy Week (ISEW)'s dialogue on Planning the Energy Transition in Indonesia. On 27 October 2022, the team was invited to present the outlook at ACE Thinktank Roundtable at Singapore International Energy Week (SIEW): Charting the ASEAN Energy Security and Climate Resilient. The session discussed existing efforts and future strategies to ensure security in the energy transition.

AEO7 is expected to pave the opportunity for more collaborative partnerships to advance the ASEAN energy sector in navigating just energy transition that is secure and resilient. In the following weeks and months, AEO7 dissemination will still be conducted on several occasions, such as webinar series and AMS roadshow.



Biogas-to-Electricity Development in ASEAN: Challenges and Opportunities



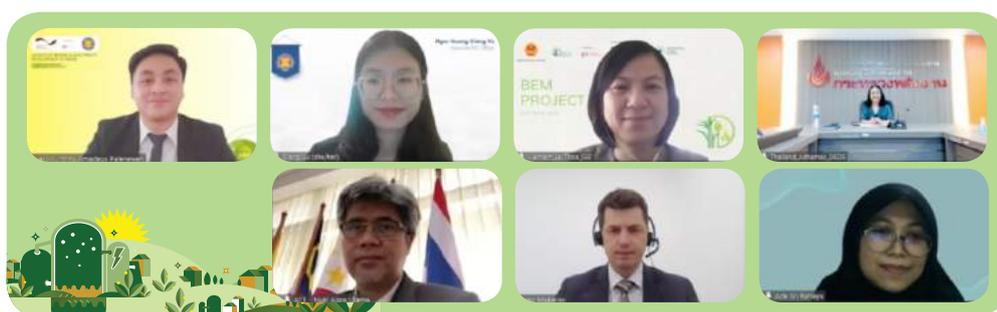
Biogas-to-Electricity Development in ASEAN: Challenges and Opportunities were finally launched on 29 November 2022. The study emphasises the importance of biogas-to-electricity expansion in the region by examining the current state of biogas and exploring a framework for identifying barriers and opportunities.

ASEAN-German Energy Programme (AGEP) Phase II, a jointly implemented programme between the ASEAN Centre for Energy (ACE) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), has started the development of this study since end of last year. A focus group discussion (FGD) was also organised in March to gather inputs from related stakeholders and validate some initial results.

Government officials, private sectors, researchers, and energy experts from ASEAN Member States (AMS) attended the launching event virtually. Remarks from the Executive Director of ACE, Dr. Nuki Agya Utama, and the Principal Advisor of AGEP, Mr Sergey Makarov, highlighted the role of biogas, which emerges as one of the key options for ASEAN countries, not only in meeting the growing energy demand but also to diversify the national energy mix and be the solution to enhance electrification.

Ms Ngoc Huong Giang Vu from ACE presented some key findings from this publication, including the enabling factors to scale up the implementations of biogas-to-electricity in ASEAN:

1. Robust and supportive regulatory frameworks
2. Synergy and effective coordination
3. Advocacy and policymaker engagement
4. International collaborations and adoption of proven successful models
5. Key stakeholder capacity building and access to financing
6. Broad public awareness of the environmental co-benefits of biogas

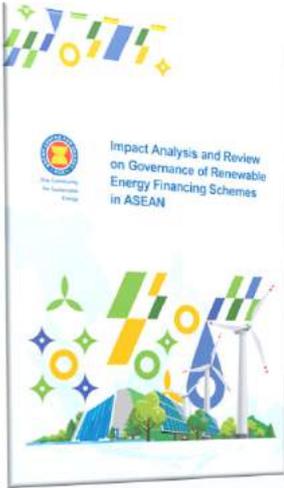


SCAN ME:



The panel discussion in this event was moderated by Dr Zulfikar Yurnaidi from ACE, inviting all-female panellists from different ASEAN countries: Ms Juthamas Kijjanuluk from Thailand's Energy Ministry, Ms Thoa Le Thi from GIZ Vietnam, and Ms Ade Sri Rahayu from Indonesia. The featured panelists were not only able to share their perspectives and experiences, but they also learned from each other's best practices.

This study, which was endorsed by the ASEAN Renewable Energy Sub-Sector Network (RE-SSN) during their annual meeting in May 2022, is expected to provide insights into what is needed to boost the biogas deployment in the region and identify how biogas can support to reach the renewable energy (RE) target of 23% in total primary energy supply (TPES) in the ASEAN Plan of Action for Energy Cooperation (APAEC) Phase II: 2021-2025. To find out more about the report, please access here: <https://aseanenergy.org/biogas-publication/>



RE Financing Schemes in ASEAN

The newest renewable energy (RE) financing publication, Impact Analysis and Review on Governance of Renewable Energy Financing Schemes in ASEAN, was launched last Tuesday, 29 November 2022. The report was prepared by the ASEAN Centre for Energy (ACE) and Deutsche

Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, under the ASEAN-German Energy Programme (AGEP) Phase II.

The event was attended virtually by government officials, development bank representatives, and energy experts from ASEAN Member States (AMS). Remarks from the Executive Director of ACE, Dr. Nuki Agya Utama, and the Principal Advisor of AGEP, Mr. Sergey Makarov, highlighted the importance of promoting the existing RE financial instruments and making the funding more attractive, effective, and sustainable.

Ms. Monika Merdekawati from ACE presented the main barriers to RE investment which lay in the areas of regulatory issues, access to finance, and technical and labour issues. She also highlighted that to best tackle the associated risks and challenges of RE

financing, policymakers can utilise the method of policy de-risking, financial de-risking, and direct incentives. Among these options, investing in de-risking processes is far more effective than providing direct incentives.

The panel discussion in this event was moderated by Ms. Rika Safrina from ACE, with panellists Dr. Yaowateera Achawangkul from Thailand's Energy Ministry and Ms. Wei Huang from Asian Infrastructure Investment Bank (AIIB). Besides the crucial of stable policy framework, the session also discussed the significance of a stable pricing framework with certainties for at least 20 years so that the financiers can then construct proper financial modelling, including the expected cash flow.

Moreover, the study endorsed by the ASEAN Renewable Energy Sub-Sector Network (RE-SSN) during their annual meeting in May 2022 also formulates the needed financing measure to achieve the goals in the ASEAN Plan of Action for Energy Cooperation (APAEC) Phase II: 2021-2025, which is to reach the RE target of 23% in total primary energy supply (TPES) and 35% in total installed capacity by 2025 and enhance the interconnectivity of ASEAN Power Grid. To find out more about the report, please access here <https://aseanenergy.org/re-financing-publication/>.



SCAN ME:



ACE - Germany Cooperation since 2007

2007

AGMHP

In selected countries in the ASEAN region, the conditions were improved so that more consumers could meet their electricity needs from sustainably used small hydropower.



Results achieved:

- Advices provided for the ASEAN Member States
- An adapted concept to the respective situation was disseminated in Cambodia, Lao PDR, and Vietnam
- Three private companies offered locally produced co-generation equipment in Cambodia, Lao PDR, and Vietnam

ASEAN-RESP Phase I

The conditions for a supportive framework for the use of renewable energies in power generation in the ASEAN area have improved.



Results achieved:

- ACE developed a strategic networking concept for improved cooperation with the relevant actors
- Three events on selected RE technologies with key institutions and actors contributed to an increased regional sector dialogue on RE
- Training that improved the understanding of RE technologies were conducted

2010



2013

ASEAN-RESP Phase II

The relevant stakeholders in the ASEAN region used the regional and technical policy exchange to improve the framework conditions for renewable energy.



Results achieved:

- Effective regional cooperation on renewable energy in the ASEAN was strengthened
- Transfer knowledge and experiences on renewable energy within the ASEAN region through efficient networking was implemented
- Advises on technical and policy issues regarding the deployment of renewable energy in the ASEAN member states were provided
- The implementation of the APAEC 2010-2015 and APAEC 2016-2025 Phase I: 2016-2020 were supported

AGEP Phase I

Promoting regional cooperation and deployment of Renewable Energy and Energy Efficiency & Conservation in ASEAN.



Results achieved:

- Four recommendations were introduced in three AMS
- One recommendation was adopted by SSN, SOME or AMEM
- One approach elaborated by network cooperation was implemented by actors from two AMS

2016



2019 - 2022

AGEP Phase II

Strengthening ACE in its role as a regional centre of excellence for sustainable energy.



Results achieved:

- ACE provides innovative services to promote sustainable energy
- Improved collection and digital processing of socio-economic and energy-specific data
- Selected actions of ACE's organizational development plan are implemented