



**JOINT MINISTERIAL STATEMENT
OF THE 37th ASEAN MINISTERS ON ENERGY MEETING**

4 September 2019, Bangkok, Thailand

“Advancing Energy Transition through Partnership and Innovation”

1. The 37th ASEAN Ministers on Energy Meeting (AMEM) was held on 04 September 2019 in Bangkok, Thailand. H.E. Sontirat Sontijirawong, Minister for Energy of Thailand, chaired the Meeting. H.E. Dang Hoang An, Vice Minister of Industry and Trade of Viet Nam was the Vice Chair. The Heads of the International Energy Agency (IEA) and the International Renewable Energy Agency (IRENA) were invited to participate in the 37th AMEM.

2. H.E. Gen. Prayut Chan-o-cha, Prime Minister of the Kingdom of Thailand, officiated the opening ceremony of the 37th AMEM. In his opening address, Prime Minister Prayut highlighted energy as an engine of economic growth in the region and spoke of the many challenges faced by the energy sector and the overall ASEAN economies amidst an era of global energy transitions. He congratulated the ASEAN Energy Ministers and Dialogue Partners and International Organisations on the gains and achievements of implementing the ASEAN Plan of Action for Energy Cooperation (APAEC), noting that the region has reached its energy efficiency target thus far as well as the important role of the successful Lao PDR-Thailand-Malaysia power integration project in enhancing multilateral power trade in ASEAN. The Prime Minister emphasised the need for ASEAN to confront its energy challenges together by enhancing partnerships and innovations towards sustainable development and energy security, so that ASEAN peoples will benefit from concrete results and no one is left behind.

3. The Ministers noted the strong follow-up on the outcomes of the 36th AMEM held in October 2018 in Singapore and the overall progress in the implementation of the seven programme areas of the APAEC 2016-2025 Phase 1: 2016-2020. The Ministers also acknowledged the good progress in the development of the APAEC Phase 2: 2021-2025 and the ongoing preparation of the 6th ASEAN Energy Outlook by the ASEAN Centre for Energy (ACE). They looked forward to the completion of these major ASEAN energy planning documents to chart ASEAN energy cooperation in the remaining five years of the ASEAN Economic Community Blueprint 2025.

Widening multilateral electricity trade in the ASEAN Power Grid

4. On promoting regional power integration, the Ministers welcomed the Joint Statement of Lao PDR, Thailand, Malaysia (LTM) on the Power Integration Project (PIP)

Phase 2 announced by the three countries during Thailand's Chairmanship of the 37th AMEM, where the three countries confirmed to increase the maximum committed energy capacity trading of the LTM-PIP up to 300 MW. Consequently, the 2-year-duration Supplementary Agreement to the Energy Purchase and Wheeling Agreement (EPWA) will be signed prior to the expiration of the present Agreement in December 2019. The Ministers appreciated the continuing effort to expand and promote multilateral electricity trade in the region and looked forward to the practical lessons obtained from this pathfinding exercise to help build consensus on the implementation of future mechanisms for power trade in the ASEAN Power Grid (APG).

5. The Ministers welcomed the Feasibility Study for ASEAN Multilateral Power Trade. The recommendations on the minimum requirements included harmonised grid interconnection codes, harmonised wheeling charge methodology, provisions for third-party access to domestic grids and for data and information sharing, regulation and dispute resolution mechanisms, allocation of responsibilities among new and existing institutions, and capacity development. As the next step, the Ministers tasked the SOME and HAPUA to follow up on these recommendations including through the APAEC Phase 2. The follow up actions on the recommendations with proposed timelines should be reported in the next AMEM in 2020.

6. The Ministers looked forward to the synergy of the APG studies with the efforts to accommodate higher share of renewables in ASEAN's energy mix and the forthcoming update of the ASEAN Interconnection Masterplan Study (AIMS III) in 2020. AIMS III will set out the interconnection infrastructure needed to enable expanded power trade as well as integrate higher shares of renewables into the APG.

Bolstering efforts to attain ASEAN's aspiration on renewables

7. For renewable energy in the power sector, the Ministers noted the potential of cross-border interconnections to trade electricity from renewables in the region. They appreciated the findings of the ASEAN Renewable Integration Analysis Study led by Thailand and the IEA to assess the impact of integrating renewables into the power grid on APG cross-border multilateral trade. The quantitative assessment of regional benefits in the study confirmed the potential for APG cross-border interconnections to enhance the flexibility of the ASEAN power sector to accommodate the growing share of renewable energy, including wind and solar, in a cost effective and reliable manner.

8. On bioenergy and biofuels promotion, the Ministers welcomed the conclusion of the Memorandum of Understanding (MOU) between ACE and the National Science and Technology Development Agency (NSTDA) of Thailand during AMEM. The MOU will support higher utilisation of bioenergy, human resource capacity development, and the work towards the establishment of an ASEAN Bioenergy Research and Development (R&D) Network Centre in the region. Related MOUs with universities in Indonesia and Japan have been concluded by ACE to promote the R&D network on RE technology development and utilisation within the region. In addition, the mapping of R&D on Renewable Energy in all ASEAN Member States under the ASEAN-German Energy Programme (AGEP) will serve as basis for enhancing cooperation opportunities in the region.

9. The Ministers appreciated the case study demonstrating options and best practices on strengthening biomass utilisation for power generation in the southern part of Thailand. The Ministers also noted the completion of the second phase of the ACE study on the Levelised Costs of Electricity (LCOE) for RE Technologies as well as the RE Data Explorer which enables spatial estimation of LCOEs in ASEAN. These help to identify opportunities and support investment decisions to scale up renewables towards the region's RE target.

10. The Ministers noted the steady progress in the deployment of renewable energy in the region, which reached 14.3% share in ASEAN's total primary energy supply (TPES) and 26.8% of RE in its installed power capacity. The Ministers also noted that 55% of the region's 10.8-gigawatt new power capacity additions in 2017 come from renewable energy. The Ministers specifically looked forward to the recommendations developed under APAEC Phase 2 to deepen efforts to address the gaps and challenges in achieving ASEAN's renewables target of 23% in the TPES.

Enhancing ASEAN's energy intensity reduction efforts

11. The Ministers further welcomed the 24.4% reduction in energy intensity achieved by ASEAN to date (based on 2005 levels). The Ministers reiterated the key role of energy efficiency and conservation (EE&C) in managing ASEAN's overall energy demand growth, lowering the economy's intensity of energy use, and complementing the effort towards the ASEAN renewables target. In addition, the Ministers acknowledged concrete follow-up to the recommendations on green buildings codes endorsed at the 36th AMEM in 2018, with major progress made in 2019 to address energy efficiency for lighting and cooling technologies.

12. On pursuing efficiency for lighting, the Ministers welcomed the adoption of the Regional Policy Roadmap for Minimum Energy Performance Standard (MEPS) for Lighting for the region, which sets out common priorities for lighting standards and coordinated strategies to achieve sustainable market transformation towards advanced, energy-efficient lighting technologies. The lighting roadmap is the second regional policy roadmap planned under APAEC Phase 1 (next to air conditioners), which focuses on energy efficiency for specific energy appliances/products.

13. On efficiency for cooling, the Ministers commended the collaboration between the ASEAN standards and energy sectoral bodies, which resulted in the endorsement of the Guidelines to Integrate Energy Efficiency for Household Air-conditioners into the Existing ASEAN Electrical and Electronic Equipment Mutual Recognition Arrangement (ASEAN EE MRA). The implementation of the Guidelines is expected to act as a pathfinder for further efforts to include lighting, refrigerators, motors and transformers, and other electricity intensive equipment. The Ministers further discussed the findings of the IEA study on The Future of Cooling in ASEAN, which highlights the rising power demand for cooling and noted the significant potential to reduce lifecycle costs and to help manage rising power demand. They requested SOME to deepen efforts to deploy more efficient air conditioners which the Ministers noted are becoming less expensive to buy, cheaper to power, and can also potentially be manufactured within ASEAN.

14. On financing for energy efficiency, the Ministers acknowledged the completion of the study on the design of financing mechanisms for EE projects that showcased best practices of EE&C financing mechanisms, described relevant frameworks and desired implementation conditions as well as recommendations for follow through. The Ministers noted that the study could help raise further awareness about EE finance mechanisms and conditions in ASEAN and looked forward to improved availability of financing for energy efficiency and clean energy projects in the region.

15. Noting that the target under the APAEC Phase 1 of reducing energy intensity by 20% in 2020 and 30% by 2025 (based on 2005 levels) are well on-track, the Ministers requested SOME to look into the possibility of an even more ambitious energy intensity reduction target for the region in the forthcoming APAEC Phase 2.

Enhancing Liquefied Natural Gas (LNG) cooperation and trade in ASEAN

16. The Ministers welcomed the further development of the ASEAN gas and regasification infrastructure, noting that natural gas will continue to play a significant role in ASEAN's energy future and commended the ASEAN Council on Petroleum (ASCOPE) for their efforts to enhance intra-ASEAN LNG cooperation and trade. The Ministers noted ASCOPE's report of eight (8) LNG regasification terminals in four (4) countries with a combined total capacity of 37.5 million tons per annum (MTPA) and 13 cross-border pipelines with a total length of 3,673 km connecting six (6) countries, as well as ongoing efforts to initiate the appropriate instrument to accommodate LNG diversion in the region.

17. Following the Gas Advocacy White Paper endorsed at the 36th AMEM in 2018, which identified key recommendations to promote the use of natural gas and LNG in the region, the Ministers welcomed the results of the follow-up study on Small-Scale LNG and LNG Bunkering in ASEAN conducted by ASCOPE. The main recommendations are to (i) improve the readiness of small-scale LNG plants and import terminals across the ASEAN, including capacity/capability building; (ii) improve public awareness for and communication of the benefits and possible role of LNG in the ASEAN energy mix; (iii) regulatory reforms including market pricing, cost-reflective tariffs, open access arrangements, and environmental regulations; and, (iv) regional cooperation including establishing common gas market, knowledge-sharing and adoption of common standards. The Ministers looked forward to ASCOPE further detailing these recommendations through specific initiatives such as a small-scale LNG pilot project in the region and to incorporate the recommendations of the Gas Advocacy White Paper into the strategies of the forthcoming APAEC Phase 2.

Building ASEAN capabilities for all energy fuels and energy technologies

18. The Ministers acknowledged the outlook of rising power generation from coal in the region until 2040, and noted the efforts by the ASEAN Forum on Coal (AFOC) to promote clean coal technologies (CCT) and intra-ASEAN coal trade; work towards establishing an ASEAN Coal Centre of Excellence; continue updating the ASEAN Coal Database and Information System; and share and build technical capacity for the deployment of CCTs, including carbon capture storage and utilisation technologies. In particular, the Ministers acknowledged the workshop and roundtables in 2019 on AFOC

Dissemination and APAEC Phase II held in Malaysia, on CCT for Sustainable Development in ASEAN held in Thailand, on Corporate Social Responsibility (CSR) Best Practices held in Indonesia, and the ASEAN Coal Business Roundtable and Conference to be held in Cambodia. The Ministers also noted the completion of the joint study on a Cleaner Coal Utilisation Roadmap in ASEAN by ACE and China Energy Technology and Economics Research Institute (CETRI), which serves as a useful reference to further accelerate the deployment of CCT in the ASEAN region and could assist ASEAN Member States to develop their national roadmaps.

19. They noted that AFOC continues to foster collaboration with other ASEAN sectoral bodies, Dialogue Partners, International Organisations, international financial institutions, and the energy business community to not only advance CCTs in ASEAN but also to conduct regional baseline studies on carbon emissions from coal-fired power plants, air quality reports, education, communication and training programmes, and CSR projects.

20. On nuclear energy for power generation, the Ministers acknowledged the continuing efforts to build ASEAN's capabilities on policy, technology and regulatory aspects of civilian nuclear energy. They noted the capacity building activities conducted this year, including the Seminar on Good Practices on Regional Cooperation in Nuclear Security in May 2019 in Manila, the cooperation with ISCN/JAEA on practical training courses and table-top exercises and developing a nuclear energy security culture, and cooperation with EU CBRN COE to convene a regional roundtable coordination dialogue on the development of national action plans or integrated nuclear security support plans. The Ministers looked forward to further cooperation with the International Atomic Energy Agency (IAEA) on nuclear energy for power generation after the signing of the ASEANTOM-led Practical Arrangement between ASEAN and IAEA this year.

21. The Ministers underscored the importance of the Capacity Building Roadmap on Energy Investment and Financing adopted at the 36th AMEM in 2018 and expressed appreciation for the Regional Workshop on Accelerating RE Investments in Southeast Asia by IRENA and ACE in Viet Nam in May 2019 and the Workshop on Optimising Investment Frameworks by Singapore and the World Bank in May 2019. They acknowledged that these capacity building initiatives and studies help ASEAN Member States better access financing for their energy investment needs. In addition, the Ministers noted the ACE-USAID Workshop on Evidence Based Policy Making Process on Renewable Energy Workshop as well as the completion of the report on Digital Technology for ASEAN Energy prepared in collaboration by the ASEAN-USAID IGNITE, ACE and US-ASEAN Business Council. They looked forward to the recommendations to help ASEAN respond to the risks and opportunities of digitalisation in the energy sector.

22. The Ministers also noted the continued enhancement of the ASEAN Energy Database System (AEDS) <<https://aeds.aseanenergy.org/>>, which is a web-based system of integrated and comprehensive ASEAN energy data and information maintained by ACE. The Ministers noted that AEDS is a useful tool to disseminate information about ASEAN that will help in policy design and implementation.

Working with IEA to respond to ASEAN's energy priorities

23. The Ministers held their annual dialogue with the IEA during AMEM and discussed the key findings of IEA's 2019 Southeast Asia Energy Outlook, noting that the region's fast demand growth brings challenges in all aspects of energy policy. They also spoke about ASEAN's policy ambitions and the implications of rising demand for cooling on the region's electricity systems, the importance of cost-effectively meeting demand through regional electricity cooperation while facilitating efforts to increase the share of renewables, as well as meet investment needs and key strategies to address investment gaps.

24. The Ministers expressed their appreciation to the IEA Executive Director for contributing to stronger ASEAN-IEA institutional ties and advancing ASEAN energy priorities. They noted that the IEA is a key strategic partner to ASEAN in helping the region tackle its energy challenges across all fuels and all technologies. They reviewed the extensive range of collaboration between ASEAN and the IEA over the past year, including on options for regional power trade, renewable energy integration into the power grid, energy efficiency for cooling, and the training initiatives and workshops, including the Singapore-IEA Training Programme on Green Buildings, conducted by Singapore and the IEA for ASEAN.

25. The Ministers welcomed the proposal to develop an ASEAN-IEA Three-Year Rolling Work Programme to support the implementation of the current APAEC and beyond. The Ministers also encouraged the strengthening of the ASEAN-IEA partnership in 2019-2020, specifically through joint projects to increase regional power trade and renewables integration, energy efficiency in the buildings sector, energy security and energy data.

Cooperation with IRENA on renewable energy development in ASEAN

26. The Ministers and the IRENA Director General discussed the global trends, outlook and challenges for global energy transformation and the role of renewable energy, and the insights presented by IRENA for the region. IRENA highlighted that renewable energy delivers on all main pillars of sustainable development: environmental, economic and even social aspects, thanks to technological advancements, strengthened enabling policy and regulatory environments as well as drastically declining costs. The Ministers noted the fast penetration of renewables in energy systems which yield positive socio-economic footprint, including creation of significant employment opportunities.

27. The Ministers and IRENA discussed the role of ASEAN in the global energy transition and welcomed the areas of focus proposed by IRENA for 2020 to implement the ASEAN-IRENA MOU on renewables development signed in October 2018, not only to assist the region to meet its aspirational target of 23% renewables share but also to address the challenge of transformation towards clean and sustainable energy. These focus areas include the update of the ASEAN Renewable Energy Outlook, to provide an analysis of the deployment potential of renewable energy technologies in power and end-use sectors by 2050 and associated costs and benefits to enable the region's clean energy transition; support for accelerated deployment of sustainable and modern

bioenergy; webinars on various renewable energy policy and technology topics as well as country roadmaps for at least two ASEAN Member States.

28. The Ministers acknowledged the Workshop on Renewable Energy Financing organised by ACE and IRENA in May 2019, in Da Nang, Vietnam and the Workshop on Project Facilitation to Develop Bankable RE Projects in August 2019 in Brunei Darussalam under the ASEAN-IRENA MOU. More collaborations and activities including the preparation of the ASEAN RE Roadmap 2025 are underway, including ongoing project development that would contribute towards closing the renewables energy gap.

Enhancing partnerships and advancing energy transition and innovation

29. The Ministers welcomed the ASEAN Climate Change and Energy Project (ACCEPT), the first energy cooperation project in collaboration with the Norwegian Government under the Norwegian-ASEAN Regional Integration Programme (NARIP), which aims to support ASEAN in improving the coherence between the ASEAN energy and climate policies and contribute to more climate-friendly development of the energy sector. The Ministers noted the completion of the ASEAN German Energy Programme (AGEP) Phase 1: 2016-2019 and welcomed the continuation of AGEP Phase 2: 2019-2021 to further support ACE and ASEAN in implementing regional energy cooperation.

30. The Ministers commended ACE and the Ministry of Energy of Thailand on the successful organisation of the ASEAN Energy Business Forum (AEBF) 2019 to bring together policy makers, commercial and technical experts, dialogue partners and international organisations in various conferences, exhibition and fora, including the Ministers-CEOs dialogue. AEBF is the annual gathering of the ASEAN energy community representing dynamic and diverse energy industry stakeholders across the ASEAN region.

ACE's 20th Anniversary and ACE new Executive Director

31. The Ministers congratulated ACE on its 20th anniversary and recognised its significant contribution in enhancing the energy cooperation in the region. The Ministers reiterated their commitment to continue enhancing ACE's role as a high performing energy institution of ASEAN to help accelerate the integration of energy strategies within ASEAN. The Ministers also welcomed the appointment of Dr. Nuki Agya Utama as the new Executive Director of ACE for the period 2019-2022 and thanked ACE personnel for their dedication and all Dialogue Partners and International Organisations for their continuing support.

Motivating best practices through the ASEAN Energy Awards

32. The Ministers congratulated the 98 awardees of the ASEAN Energy Awards 2019 recognised for best practices in energy efficiency and conservation, renewable energy and excellence in energy management, and coal resource development and utilisation. The awards were given in the areas of: (i) ASEAN Energy Management in Building and Industries, 14 awards; (ii) ASEAN Energy Efficient Building, 19 awards; (iii) ASEAN Green Building, 9 awards; (iv) ASEAN Renewable Energy, 19 awards; (v)

Coal Mining, 1 award; (vi) CCT Utilisation, 10 awards; (vii) Coal Handling, 1 award; (viii) CSR, 3 awards; (ix) Special Submissions, 3 awards; and, (x) Awards for Excellence in Energy Management by Individuals conferred to 19 senior energy officials in recognition of their significant contributions to advance ASEAN's energy cooperation goals.

38th AMEM

33. The Ministers agreed to convene the 38th AMEM in September 2020 in Ha Noi, Viet Nam.

The Ministers expressed their sincere appreciation to the Government and people of the Thailand for the warm hospitality accorded to the delegations and the excellent arrangements made for the 37th AMEM and associated meetings.

ASEAN MINISTERS FOR ENERGY

1. **The Hon. Dato Mat Suny Hussein**, Minister of Energy, Manpower and Industry, Brunei Darussalam;
2. **H.E. Suy Sem**, Minister of Mines and Energy, Cambodia;
3. **H.E. DR. Arcandra Tahar**, Vice Minister of Energy and Mineral Resources, Indonesia;
4. **H.E. DR. Khammany Inthirath**, Minister of Energy and Mines, Lao PDR;
5. **The Hon. Yeo Bee Yin**, Minister of Energy, Science, Technology, Environment and Climate Change, Malaysia;
6. **H.E. U Win Khaing**, Union Minister for Electricity and Energy, Myanmar;
7. **H.E. Alfonso G. Cusi**, Secretary of the Department of Energy, Philippines;
8. **H.E. Chee Hong Tat**, Senior Minister of State for Trade and Industry, Singapore;
9. **H.E. Sontirat Sontijirawong**, Minister of Energy, Thailand;
10. **H.E. Dang Hoang An**, Vice Minister of Industry and Trade, Vietnam; and,
11. **H.E. DR. Aladdin D. Rillo**, Deputy Secretary-General of ASEAN for ASEAN Economic Community.