

JOINT MINISTERIAL STATEMENT OF THE 42nd ASEAN MINISTERS ON ENERGY MEETING (AMEM)

26 September 2024, Vientiane, Lao PDR

1. The 42nd ASEAN Ministers on Energy Meeting (AMEM) was hosted by the Lao People Democratic Republic (PDR) on 26 September 2024. H.E. Phosay Sayasone, Minister of Energy and Mines of Lao PDR, chaired the Meeting. H.E YAB, Dato' Sri Haji Fadillah Bin Haji Yusof, Deputy Prime Minister and Minister of Energy Transition and Water Transformation Malaysia, as the Vice Chair. Dialogue with the Deputy Heads of the International Energy Agency (IEA) and the International Renewable Energy Agency (IRENA) was conducted in conjunction with the 42nd AMEM. The Deputy Secretary-General of ASEAN for ASEAN Economic Community (AEC) was also in attendance. The Meeting also welcomed the Minister of Petroleum and Mineral Resources of Timor-Leste as Observer.

2. H.E. Phosay Sayasone officiated the Joint Opening Ceremony for the 42nd AMEM and the ASEAN Energy Business Forum (AEBF) 2024. With the theme of Lao PDR Chairmanship in 2024 *"Enhancing Connectivity and Resilience"*, he emphasised the importance of these initiatives to ensure ASEAN collective efforts in strengthening the ASEAN Community to seize opportunities and address present and emerging challenges effectively. He also stressed that the ASEAN Plan of Action for Energy Cooperation (APAEC) has been instrumental in driving energy security, accessibility, affordability, and sustainability in ASEAN.

Progressing the ASEAN Sustainability Agenda through the Implementation of the APAEC Phase II: 2021-2025

3. The Meeting acknowledged the ongoing implementation of the ASEAN Sustainability Agenda such as the ASEAN Strategy on Carbon Neutrality and the Circular Economy Framework for AEC, as well as the development of the implementation plan for the ASEAN Blue Economy Framework. The Meeting underscored the importance of aligning the agenda within the energy sector to foster a unified and forward-looking approach to regional development, by integrating these into the current implementation of the APAEC Phase II: 2021-2025 and the development of the APAEC Post 2025.

4. The Meeting highlighted the ongoing progress in developing the APAEC Post-2025 referring to the AEC Strategic Plan 2026-2030, emphasising the importance of creating sectoral plan to address the region's evolving energy challenges and the global megatrends. The Meeting acknowledged the importance of consultations with stakeholders, including with the ASEAN Member States (AMS), Dialogue Partners (DPs), and International Organisations (IOs), in ensuring that APAEC Post-2025 reflects diverse perspectives and priorities. The Meeting therefore endorsed the theme of the APAEC 2026-2030: 'Advancing Regional Cooperation in Ensuring Energy Security and Accelerating Decarbonisation for a Just and Inclusive Energy Transition'.

5. The Meeting commended the significant progress made under Lao PDR's Chairmanship in 2024, particularly in advancing regional interconnectivity through the working towards the developments of the ASEAN Power Grid (APG) enhanced Memorandum of Understanding (MoU) and Term of Reference (ToR) of APG related bodies. The enhanced MoU serves as a key instrument to advance multilateral power trade (MPT), improve coordination among stakeholders, and improve sustainable and reliable electricity supply across the AMS.

6. Further, the Meeting noted the good progress in accomplishing the energy priorities in 2024 including the APG interconnector project profiles, framework for the ASEAN Petroleum Security Agreement (APSA), signing of the protocol to amend and extend the Trans-ASEAN Gas Pipeline (TAGP) MoU, efforts to promote innovative solutions on Carbon Capture, Utilisation, and Storage (CCUS), enhance renewable energy adoption through long term framework, and improve energy efficiency performance practices for the industry. The Meeting further welcomed the launch of the 8th ASEAN Energy Outlook (AEO8) in 2024.

7. The Meeting expressed appreciation to the Senior Officials Meeting on Energy (SOME), energy Sub-Sector Networks (SSNs), Specialised Energy Bodies (SEBs), the ASEAN Centre for Energy (ACE), and the ASEAN Secretariat for the impeccable implementation progress of the APAEC Phase II: 2021-2025. The Meeting conveyed appreciation to all existing DPs and IOs for the continuous support and initiatives for the APAEC.

8. On APG, the Meeting agreed that the APG is central to achieving a more resilient and sustainable energy future for ASEAN, facilitating cross-border electricity trade, and supporting the region's long-term energy vision. To realise the APG, the Meeting agreed tasking SOME and ACE with accelerating the finalisation of APG enhanced MoU and its ToR, and work towards a framework on ToR for subsea cable developments recommendations and timeline, by the end of 2024, and noted the urgency to work towards a concrete and definite timeline towards 2045. The Meeting acknowledged the resounding success of the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP) which demonstrates the feasibility of multilateral cross-border power trade in enhancing energy security, affirmed the LTMS-PIP as a key building block of the APG which demonstrates the feasibility of multilateral and multidirectional cross-border power trade in enhancing energy security. The meeting appreciated the LTMS Members' commitment to continuing and advancing multilateral and multidirectional cross-border power trade in ASEAN. The Meeting welcomed the developments and progress of the power trade between Singapore and Malaysia as a significant milestone towards realising the shared benefits of cross border power trading to the region. In parallel, the

Meeting appreciated the continued discussion in the Brunei Darussalam-Indonesia-Malaysia-Philippines Power Integration Project (BIMP-PIP) which include the conduct of feasibility study and realisation of sub-regional power trade.

9. The Meeting recognised the importance of establishing a necessary regulatory, policy, commercial and technical frameworks to advance the cross-border electricity trading. In particular, the Meeting emphasised the importance of upgrading cross-border interconnectors and deploying related technology such as subsea interconnections to enable power transmission and realise the APG Vision. In this context, the Meeting agreed on the need to strengthen domestic and cross-border grid infrastructure development, as well as facilitate the development and transit of cross-border power trade and subsea power cables. The Meeting welcomed the establishment of the Ministerial-level Working Groups between Lao PDR-Cambodia-Singapore, Vietnam-Singapore-United States, and the Singapore–United States Feasibility Study on Regional Energy Connectivity to facilitate the transit of overland and subsea power cable interconnections, and renewable energy deployment to operationalise cross-border electricity trading projects.

10. The Meeting welcomed concrete progress in collaboration with DPs and IOs in advancing the APG interconnection and MPT namely: (i) the commencement of ASEAN Interconnection Masterplan Study (AIMS) III Phase 3 to further develop minimum requirements for MPT, (ii) the completion of the ongoing technical and commercial feasibility studies of review for the Indonesia-Malaysia cross-border interconnections, namely Peninsular Malaysia to Sumatra and North Kalimantan to Sabah, as well as the facilitation to conduct new feasibility studies for other identified cross-border interconnections under AIMS III, iii) capacity building in project finance, iv) progress in harmonising technical standards, v) establishment of dispute settlement mechanisms, (vi) roadmap for MPT in ASEAN, and vii) development of regulatory framework. The Meeting appreciated the close coordination among the Head of ASEAN Power Utilities and Authorities (HAPUA), APG Consultative Committee (APGCC), and ASEAN Energy Regulatory Network (AERN), facilitated by ACE and ASEAN Secretariat in shaping the substantive progress of APG.

11. The Meeting underscored the substantial investment needed to bring regional interconnection projects to fruition, particularly advancing the APG. The Meeting noted the initiatives by the Asian Development Bank (ADB) and World Bank in supporting national and regional energy transition programme and facilitating ASEAN's energy integration, including a dedicated financing facility for the APG. The Meeting further noted the importance of close coordination between the Multilateral Development Banks (MDBs) partners and AMS to enable the successful establishment of the financing facility.

12. On **TAGP**, the Meeting recognised the continuing role of natural gas in the energy transition. As ASEAN's energy demand continues to rise, natural gas remains essential for meeting the region's immediate energy needs, balancing intermittent renewable energy sources, and reducing carbon emissions. The Meeting welcomed the amendment of the TAGP MoU that will expand TAGP coverage from the physical pipeline to include

all Liquefied Natural Gas (LNG) related infrastructure and facilities, which marks a significant step towards enhancing energy security and resilience across the region.

13. The Meeting acknowledged the expansion of TAGP infrastructure with 13 crossborder pipelines connecting six (6) countries and 14 LNG regasification terminals across seven (7) countries. The Meeting underscored the importance of enabling a robust LNG value chain by strengthening regional cooperation in LNG infrastructure development which includes import and export terminals with regasification, large-scale storage facilities, and distribution pipelines, including small-scale LNG infrastructure, floating storage and regasification units (FSRUs), and bunkering facilities. The Meeting also acknowledged the need for technical exchange through training courses on LNG market structures, gas market design, and regulation.

14. The Meeting acknowledged the progress on the development of the successor of the APSA and ToR for the APSA Institutional Framework and Operational Bodies which establishes a framework for cooperation among AMS to enhance petroleum security. The Meeting welcomed methane emissions abatement initiatives in the energy sector, including the completion of 'ASEAN Energy Sector Methane Leadership Program' (MLP) 1.0 and the launch of MLP 2.0 organised by the USAID Southeast Asia Smart Power Program (SPP) in collaboration with ACE and ASEAN Council on Petroleum (ASCOPE). The Meeting encouraged DPs, IOs, and the private sector to support ASEAN in the area of natural gas.

15. On **Coal and Clean Coal Technology (CCT)**, the Meeting acknowledged the continued role of coal in the ASEAN energy mix and further acknowledged AMS' efforts on phasing down coal fired power plant through the adoption of decarbonisation technologies such as CCUS, Co-firing, Integrated Gasification Combined Cycle (IGCC), Supercritical and Ultra-Supercritical Coal-Fired Power Plants, and any CCT related technologies. The adoption of such technology could support ASEAN in reducing emission of the existing coal fired power plants. The Meeting therefore invited greater collaborative efforts from DPs and IOs in this area.

16. The Meeting welcomed key findings from the CCS Deployment Framework and Roadmap for ASEAN which include the need for ASEAN to improve supportive policy and regulatory frameworks to strengthen investment and mitigate risks for CCS. The Meeting noted the plan to establish ASEAN CCUS Working Group to facilitate cross sectoral coordination and knowledge exchange among relevant stakeholders, and the importance of facilitating cross border CCS projects.

17. On **Energy Efficiency and Conservation (EE&C)**, the Meeting underscored energy efficiency and conservation is the 'first fuel' for ASEAN's sustainable energy development by reducing energy demand while driving economic growth. The Meeting commended the ASEAN region has made significant progress towards its Energy Intensity (EI) reduction target. Based on 2022 data, ASEAN has achieved a 24.5% reduction in energy intensity from 2005 levels. The Meeting encouraged further strengthening national and regional EE&C initiatives towards 2025 and beyond,

highlighting the need to intensify efforts in key sectors such as appliances, buildings, industry, and transport as well as to set more realistic regional EI target for post-2025.

18. On **Renewable Energy (RE)**, The Meeting recognised that ASEAN's RE share in the total primary energy supply (TPES) reached 15.6% based on 2022 data, reflecting a 0.2% increase from 2021, with notable contributions from wind and solar energy. The Meeting agreed to intensify collaboration among AMS to accelerate the achievement of the regional target by maximising renewable potential in base load technologies such as geothermal and hydropower, expanding the use of solar and wind, hydrogen and its derivatives, enhancing bioethanol and biodiesel blending to reduce oil dependency in the transport sector, and exploring emerging technologies such as Sustainable Aviation Fuel (SAF), green hydrogen, ocean energy and energy storage technologies. The Meeting noted the development of the RE Long-term Roadmap supported by ASEAN Climate Change and Energy Project - Phase 2 (ACCEPT-II) and Australian Government through Partnership for Infrastructure (P4I), which will outline potential pathways for enhanced regional cooperation in RE across ASEAN.

19. On **Regional Energy Policy and Planning (REPP)**, the Meeting highlighted the regional policy coordination is imperative for ASEAN to effectively navigate the complex and rapidly changing global energy landscape. As energy markets become increasingly interconnected, coordinated regional policies could enable ASEAN to optimise resource use, enhance energy security, and accelerate the transition to sustainable energy systems. The Meeting welcomed the initiative to extend the APAEC post-2025 theme to a twenty-year timeframe that aligns with the ASEAN Community Vision 2045.

20. The Meeting welcomed the key findings of the AEO8, which emphasise the need to improve energy efficiency, particularly in the industrial sector, and to harmonise standards across AMS. The report highlights the critical role of natural gas and CCUS technologies in the energy transition, along with the importance of advancing RE and any available hybrid systems. Strengthening energy security through interconnectivity infrastructure, such as the APG and cross-border gas pipelines as well as subsea power cables and interconnectors, is vital for achieving resilient and sustainable energy systems. These findings serve as essential references to align the national and regional energy priorities. The Meeting expected that the AEO8 would also form the foundation for developing the APAEC 2026-2030.

21. On **Civilian Nuclear Energy (CNE)**, as ASEAN copes with surging electricity demand driven by the rapid urbanisation and economic growth, CNE has the potential to support clean energy transitions emerges as a possible solution to meet the region's energy needs. The Meeting welcomed the Nuclear Energy Cooperation (NEC-SSN)'s plans to continue efforts on capacity building and knowledge exchange which includes conducting study visits to international nuclear facilities, developing technical guidelines on nuclear legal and regulatory frameworks, and looking for financing schemes for nuclear power generation. The Meeting encouraged further support from DPs and IOs in supporting knowledge exchange in ASEAN for CNE utilisation including Small Modular

Reactors (SMRs), in line with the highest standards of safety, security and non-proliferation.

22. In parallel with efforts to achieve APAEC goals, the Meeting recognised the potential of new and emerging energy resources and technologies, such as smart grids, advanced Energy Storage Systems (ESS), hydrogen and its derivatives, ammonia, Electric Vehicles (EVs), bioenergy, Artificial Intelligence (AI), and blockchain, to enhance ASEAN's evolving energy landscape. The Meeting emphasised that these resources and technologies could strengthen ASEAN's energy and economic resilience. The Meeting welcomed initiatives focused on capacity building and collaboration to integrate these innovations effectively, advancing ASEAN's energy transition from its current stage.

Dialogue with IEA and IRENA: Ensuring ASEAN Readiness in Addressing Global Energy Challenges

23. The Meeting welcomed key recommendations by IEA for ASEAN in advancing RE and energy efficiency measures and accelerating the deployment of clean energy technologies drawing from the latest discussion on the 28th Conference of the Parties (CoP 28) to the United Nations Framework Convention on Climate Change (UNFCCC). Additionally, the Meeting affirmed that ASEAN needs to support just transitions in the coal sector and actively engage in the global shift towards decarbonisation target. This includes fostering the adoption of CCUS technology for power generation and in the oil and gas industry. By this, ASEAN expectedly will ensure that its energy transitions are both equitable and sustainable, positioning the region as a leader in the global clean energy landscape. The meeting looked forward to the launch of the establishment of the IEA Regional Cooperation Centre at the Singapore International Energy Week 2024, and the Centre's role in advancing regional energy cooperation. The Meeting also welcomed the Singapore-IEA Regional Training Hub initiative which has trained more than 1500 participants from over 35 countries since 2017.

24. The Meeting welcomed key recommendations by IRENA for ASEAN to intensify its efforts to harness developments across various RE sources and technologies, particularly by focusing on the key enablers identified to triple global renewable power capacity by 2030 aligned with the United Arab Emirates (UAE) Consensus agreed at CoP28. This includes prioritising investments in grid infrastructure, subsea power interconnectors, advancing policy frameworks, and fostering innovation in energy storage systems, interconnector upgrading, grid modernisation and smart grid systems. These actions are crucial for ASEAN to not only meet its growing energy demand but also to ensure a sustainable and resilient energy future. The region's commitment to tripling up RE will be vital in contributing to global climate goals while enhancing regional energy security.

Strengthening Collaboration through the ASEAN Energy Business Forum 2024

25. The Meeting congratulated the 65 awardees of the ASEAN Energy Awards 2024 recognised for best practices in energy efficiency and conservation, as well as renewable energy and excellence in energy management by individuals. The awards were given in the areas of: (i) Green Building (6 awards); (ii) ASEAN Energy Efficient Building (14 awards); (iii) ASEAN Energy Management in Buildings and Industries (14 awards); (iv) ASEAN Renewable Energy (18 awards); (v) Awards for Excellence in Energy Management by Individuals conferred to senior energy officials in recognition of their significant contributions to advance ASEAN's energy cooperation goals (13 awards). The Meeting commended ACE and the Ministry of Energy and Mines of Lao PDR on the successful organisation of the ASEAN Energy Business Forum (AEBF) 2024, which featured the 4th ASEAN International Conference on Energy and Environment (AICEE), the Ministers-CEOS Dialogue, exhibition, and the ASEAN Energy Leaders' Golf Tournament.

43rd AMEM

26. The Meeting agreed to convene the 43rd AMEM in 2025 in Malaysia. The Meeting expressed their sincere appreciation to the Government and people of Lao PDR for the excellent hosting of the 42nd AMEM and Its Associated Meetings.
