1. The 41st ASEAN Ministers on Energy Meeting (AMEM) was hosted by Indonesia on 24 August 2023. H.E. Arifin Tasrif, Minister of Energy and Mineral Resources of Indonesia, chaired the Meeting. H.E. Phosay Sayasone, Minister of Energy and Mines of Lao PDR was the Vice Chair. The associated dialogue sessions with the Director General of the International Renewable Energy Agency (IRENA) and the Deputy Secretary of Energy of the United States were also conducted in conjunction with the 41st 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 Minerals of Timor-Leste as Observer.

2. The Joint Opening Ceremony for the 41st AMEM and the ASEAN Energy Business Forum (AEBF) 2023 was also officiated by H.E. Minister Arifin Tasrif. In his opening address, he emphasised the role of ASEAN as an epicentrum of growth that is marked by annual energy demand growth of 3% and an economic growth in 2023 which doubled from the previous year. He highlighted the key deliverable of Indonesia’s 2023 Chairmanship which seeks to address the region’s sustainable energy security through interconnectivity and emphasised that two-thirds of the region’s growing energy demand could be met by renewables. He looked forward to ASEAN’s interconnectivity platforms supporting the region’s pathways towards energy sustainability, secure growth, and enabling support for investments and partnerships.

**Joint Declaration on Sustainable Energy Security Through Interconnectivity**

3. The Meeting adopted the ‘Joint Declaration of the 41st AMEM on Sustainable Energy Security Through Interconnectivity’ which reaffirms the shared commitment and collective responsibility of ASEAN Member States (AMS) to enhance the role of regional interconnectivity and integration in ensuring sustainable energy security in the region.

4. The Joint Declaration, which serves as Indonesia’s 2023 ASEAN Chairmanship’s Priority Economic Deliverable (PED) on energy, called for greater enhancement of energy interconnectivity among others through the expanded implementation of the ASEAN Power Grid (APG) and the Trans-ASEAN Gas Pipeline (TAGP), including liquefied natural gas (LNG) infrastructure. The Joint Declaration builds on the success of existing ASEAN interconnection projects by pursuing an aspirational regional target for interconnection of AMS towards 2045, in line with the 20-year timeframe of the ASEAN Community’s Post-2025 Vision, as well as, to accelerate the just and inclusive energy transitions while ensuring energy security, reliability, accessibility, sustainability, resiliency, and affordability.
Maintaining the Region’s Competitiveness through the ASEAN Sustainability Agenda and Energy Transition

5. The Meeting acknowledged the importance of the overarching ASEAN sustainability agenda which requires cooperation across sectors and pillars to ensure that the region remains competitive and able to develop in a sustainable and inclusive manner. The Meeting took note of the development and implementation of complementary and overarching ASEAN frameworks such as the ASEAN Strategy on Carbon Neutrality, the ASEAN Economic Community’s Circular Economy Framework, the ASEAN Taxonomy for Sustainable Finance, and the ASEAN Blue Economy Framework.

6. On the ASEAN Strategy on Carbon Neutrality, the Meeting affirmed the relevance of the strategies identified for the energy sector, particularly on connecting ASEAN’s green infrastructure & markets such as the ASEAN Power Grid, attracting and deploying green capital, and developing interoperable carbon markets, and looked forward to contributing to its implementation. The Meeting highlighted transition finance as crucial to enabling and scaling up the region’s energy transition and looked forward to the stakeholder consultations on Version 2 of the ASEAN Taxonomy.

Progress in the Implementation of APAEC Phase II Programme Areas

7. The Meeting expressed appreciation to the Senior Officials Meeting on Energy (SOME), energy subsector networks (SSNs), specialised energy bodies (SEBs), the ASEAN Centre for Energy (ACE), and the ASEAN Secretariat for the good implementation progress of the ASEAN Plan of Action for Energy Cooperation (APAEC) Phase II: 2021-2025. The Meeting expressed similar appreciation to all Dialogue Partners and International Organisations (DP/IOs) for the continuing initiatives to enhance energy cooperation with ASEAN while working towards the development of new and mutually beneficial partnership arrangements.

8. On the APG, the Meeting welcomed the continuing initiatives to enhance the region’s power systems, the implementation of APG interconnection projects, and the work to advance multilateral power trading (MPT). The Meeting noted the successful conduct of the APG Consultative Meeting among the SOME Focal Points, Heads of ASEAN Power Utilities and Authorities (HAPUA), APG Consultative Committee (APGCC), the ASEAN Energy Regulators Network (AERN), ACE, and ASEAN Secretariat. The Meeting welcomed the commencement of the process for extending the existing Memorandum of Understanding (MoU) of APG until 31 December 2025 and called upon all AMS and APG bodies to support APCGCC as the lead body for the preparation of the successor APG agreement.

9. The Meeting commended the initiatives to further expand MPT in the region, including the release of the Joint Statement initiating the Brunei Darussalam–Indonesia–Malaysia-Philippines Power Integration Project (BIMP-PIP), which will complement existing efforts towards realising the APG under the AEC Blueprint, as well as the first anniversary of the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP). The Meeting noted that the LTMS countries will work towards continued power trade of up to 100 MW and facilitate future discussions regarding further capacity and development of the LTMS-PIP. The Meeting also noted the collaboration on cross-border electricity trading between Cambodia and Singapore via subsea cables.
The Meeting noted the accomplishments of the HAPUA Working Groups, including the completion of supportive studies in the power generation, transmission and distribution sectors and the conduct of capacity building activities to advance MPT, such as the ongoing studies on ‘Implementing Best Practices of Smart Grids in AMS’ and ‘Contractual Arrangements for the ASEAN Power Grid Multilateral Trade’, and welcomed the continuing programs for training and talent exchange between ASEAN power utilities.

The Meeting noted the findings of the ASEAN Interconnection Masterplan Study III (AIMS III) Phase 1 and 2 Update to periodically align AIMS with evolving national and regional power landscapes, establish a long-term RE target under the next APAEC, and initiate more detailed analysis and formulate plans for higher capacity additions for the future prioritised interconnections. The Meeting further appreciated the progress of the projects and programmes that support the implementation of the APG vision across the region, such as the (i) AIMS III Phase 3, (ii) United States Agency for International Development Southeast Asia Smart Power Program (USAID SPP), (iii) Feasibility Studies on cross-border interconnection supported by the United States Trade and Development Agency, and (iv) the APG-Advancing Program (APG-AP) with the UN Office for Project Services and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH of Germany. Further, the Meeting agreed on the importance of building the capacity of ASEAN energy regulators to advance MPT and welcomed the development of the AERN Capacity Building Programme for 2023 – 2025.

On the TAGP programme area, the Meeting emphasised the importance of the continuing role of natural gas in a well-balanced and just energy transition and appreciated the ASEAN Council on Petroleum (ASCOPE) on its continuing advocacy for natural gas through the implementation of the Gas Advocacy Communication Plan. The Meeting also emphasised the need to enhance connectivity and accessibility of gas and LNG supplies and for the region to tap into its indigenous energy resources. It also noted the good progress in the development of new regasification terminals (RGTs) in the region that will allow ASEAN to continue expanding the region’s gas distribution networks to connect at least eight (8) AMS by 2025. The Meeting welcomed plans to extend and amend the existing TAGP MoU to also include the role of LNG and the expanded development of RGTs in the region.

The Meeting recognised the continuing collaborative efforts in addressing volatilities caused by supply chain disruptions from the oil and gas markets. The Meeting affirmed its commitment to extend the current ASEAN Petroleum Security Agreement (APSA) and looked forward to the drafting of the new APSA agreement in 2024.

On Coal and Clean Coal Technology (CCT), the Meeting acknowledged the continuing role of coal-based power in ASEAN’s energy security and affordability, and affirmed the need for regional cooperation to address regional supply stability and security, and carbon management. The Meeting also called for enhancing intra-regional coal trade to increase the resiliency and supply security of AMS amidst global energy supply disruptions.

The Meeting highlighted the commitment to reduce emissions in ASEAN through the deployment of CCT and Carbon Capture, Utilisation, and Storage (CCUS). The Meeting supported the role of the ASEAN Forum on Coal (AFOC) to lead CCUS initiatives in ASEAN, and tasked AFOC to work closely with HAPUA, ASCOPE, and other SSNs and SEBs to
advance CCUS implementation in the region. The Meeting acknowledged the 12 CCUS projects in the pipeline in AMS, with the first CCUS project on natural gas processing expected to be operational by 2025.

16. The Meeting welcomed the on-going development of the ASEAN CCUS Deployment Framework and Roadmap, initiated through the 1st South East Asia CCS Accelerator Workshop organised by the Global CCS Institute and ACE held in May 2023 in Bangkok, Thailand, that discussed needed policy and regulatory support and a coordinated approach to storage resource development for CCS in South East Asia. This effort is complemented by the conduct of the workshop on ‘Advancing CCUS Implementation for Energy Sector in ASEAN’ organised by the Economic Research Institute for ASEAN and East Asia (ERIA), the Ministry of Energy and Mineral Resources of Indonesia and ACE on 23 August 2023 in Bali, Indonesia. The Meeting looked forward to the finalisation of the Framework and Roadmap in 2024, which will identify action plans to achieve short, mid, and long-term regional milestones to help decarbonise the region’s energy systems through CCUS deployment. The Meeting also noted the initiation of an integrated CCUS – coal power plant pilot project in the ASEAN Centre of Excellence for Clean Coal Technology.

17. To further advance CCUS in the region, the Meeting agreed to explore avenues for enabling cross-border carbon transport and storage, as well as to support development of regional carbon markets to improve the economic and technical feasibility of CCUS projects in the region. The Meeting looked forward to the complementary study on the deployment of CCUS in industrial hubs that will assess the economic benefits arising from improvements in the region’s economic and market competitiveness as a result of mitigation action in the industrial sector.

18. On Energy Efficiency and Conservation (EE&C), the Meeting welcomed the 24.5% energy intensity reduction achieved by ASEAN in 2021 (based on 2005 levels) and urged all relevant energy bodies to exert optimum efforts to achieve the APAEC Phase II target of 32% by 2025. The Meeting acknowledged the importance of accelerating EE measures, not only for the power sector but also for the largest energy-consuming sectors such as transport, industry, and building, as well as to expand existing EE measures for lighting and airconditioners on to other electrical appliances especially motors, transformers, and refrigerators, that will help reduce energy use and emissions in cost-effective ways.

19. The Meeting agreed to enhance EE&C measures in the transport sector through the increasing utilisation of biofuels, deployment of electric vehicles (EVs), and improvement of fuel efficiency as depicted in the study ‘ASEAN Energy Efficiency and Conservation for the Transportation Sector: Policy Trends and Best Practices’ supported by the Korea Energy Agency (KEA). The Meeting was encouraged by the efforts for cross-sectoral cooperation between the energy and transport sectors to implement the ‘ASEAN Leaders’ Declaration on Developing Regional Electric Vehicle Ecosystem’, as well as to develop the ‘ASEAN Plus Three Leaders’ Statement on Developing of Electric Vehicle Ecosystem’, and to also explore opportunities to integrate and strengthen the infrastructure for blended biofuels and other alternative fuels for the region’s mobility systems. The Meeting looked forward to the implementation of ‘ASEAN-US Workshop: Integrated Approaches to Scaling Up Electric Mobility’ on 19-22 September 2023 in Bangkok, Thailand.
20. The Meeting looked forward to advancing energy efficiency in the industry sector through digitalisation and utilisation of data analytics. The meeting welcomed the initiative on ‘Supporting Innovative Mechanisms for Industrial Energy Efficiency Financing in Indonesia with Lessons for Replication in the Other AMS’ that aims to address financial, regulatory, and demand-side barriers in the industry sector.

21. The Meeting appreciated the support of DP/IOs in various projects for capacity-building under the EE&C programme area such as ASEAN-Japan Energy Efficiency Partnership scheme 4 and 5 with Energy Conservation Center Japan that focuses on developing the Sustainable ASEAN Energy Management Certification Scheme. The Meeting welcomed the completion of the project ‘Promotion of Higher Efficient Air Conditioners in ASEAN through Harmonisation of Standards (ISO 16358) and Strengthening of Market Verification and Enforcement (MV&E) Capabilities’ with support from the Japan-ASEAN Integration Fund and looked forward to the second phase that aims to reinforce ASEAN MV&E capabilities and increase consumer awareness. The Meeting also noted the ongoing project with the International Energy Agency (IEA) on ‘Efficient Grid-Interactive Buildings’ which explores the use of smart digital technologies and distributed energy resources for buildings in the ASEAN region.

22. On Renewable Energy (RE), the Meeting noted ASEAN’s achievement of 14.4% RE share in the Total Primary Energy Supply (TPES) in 2021. In addition, the RE share in installed power capacity reached 33.6% in 2021, with only a 1.4% gap remaining to achieve the 2025 target. The Meeting welcomed the ongoing preparation of Version-1 of the ASEAN Long-Term RE Roadmap, which will put forth long-term strategies and accelerated actions until 2050 to increase RE investments in the region in the power, industry, and transport sectors. The Meeting looked forward to recommendations on investment strategies supporting infrastructure development, grid enhancement, cross-border connectivity and demand-side management and urged in-depth analysis and discussions to examine the challenges and opportunities to narrow deployment barriers for RE projects in the region.

23. The Meeting welcomed the project ‘Development of Renewable Energy Certificate (REC) Framework in BIMP’ which will study the market potential of REC in BIMP countries with potential replication in other AMS. The Meeting also noted the conduct of the workshop ‘Improving Energy Security in Islands and Remote Grids in ASEAN through Utilisation of Emerging Clean Energy Innovation’ held by ERIA and ACE. The Meeting looked forward to the organisation of the workshop ‘Development of Bioenergy Market Potential in ASEAN’ to be held in October 2023, which will identify the development status, opportunities, and supply-demand outlook for bioenergy in ASEAN.

24. The Meeting appreciated the continued engagement with existing DP/IOs in the areas of RE policy and capacity building, including with (i) the National Science and Technology Development Agency of Thailand on the ‘Electric Vehicle Integration into Biofuel Roadmap’ supported by the ASEAN-Korea Economic Cooperation Fund, (ii) the Ministry of Economy, Trade and Industry of Japan through Cleaner Energy Future Initiative for ASEAN, (iii) the UN Economic and Social Commission for Asia and the Pacific to complement support for the development of ASEAN RE Long-term Roadmap, (iv) the Energy Foundation China on ‘Investments and Measures for Clean Energy and Power Sector Resilience in ASEAN’, and (v) the China Renewable Energy Engineering Institute on the ongoing study on the ‘ASEAN Offshore Wind Development Roadmap’ and the workshop on ‘Offshore Wind+ Energy Potential & Applications in ASEAN’ in May 2023. The
Meeting also noted the efforts to promote sustainable aviation fuels (SAF) in the region and the cross-sector coordination among transport, agriculture and energy sectors to support development of the SAF supply chain.

25. On Regional Energy Policy and Planning (REPP), the Meeting welcomed the good progress in implementing activities under the APAEC Phase II and noted the increasing need to leverage opportunities for multilateral collaboration through new partnerships throughout the seven (7) programme areas. The Meeting noted with appreciation the Mid-Term Review of the APAEC Phase II which assessed the challenges and identified opportunities for improvement for each Outcome Based Strategy until completion in 2025. The Meeting looked forward to the development of the next cycle of the APAEC which will start in January 2024 until its planned endorsement at the 43rd AMEM in 2025. The Meeting further noted the ongoing development of the 8th ASEAN Energy Outlook (AE08) by ACE to include a Carbon Neutrality Scenario and several thematic regional energy insights.

26. The Meeting commended the expansion of energy engagement with new DPs/IOs, including through the conduct of the 1st ASEAN-European Union Energy Dialogue and the 1st ASEAN-Asian Development Bank (ADB) Energy Dialogue held at the sidelines of the 41st SOME in June 2023. The Meeting noted the engagements will be complemented by several projects such as the ‘ASEAN-ADB Workshop on Financing of Power Projects for Energy Transition’ held in May 2023.

27. The Meeting welcomed the support from IEA for a series of ‘peer-to-peer learning workshops between AERN and regulators from other regions’ as well as the conduct of the ‘Singapore – IEA Regional Training Programme on Seizing Opportunities with Regional Power Grids’. The Meeting further noted IEA’s continuing support on emerging issues through the conduct of the ‘IEA – Ministry of Energy and Mineral Resources of Indonesia Workshop on Enabling CCUS Deployment in ASEAN’ and the ‘AEBF Side Event on Critical Minerals: Opportunities and Challenges for ASEAN’. The Meeting encouraged IEA to work closely with ACE and the ASEAN Secretariat to identify cooperation activities under the various programme areas of the APAEC.

28. The Meeting noted the ongoing implementation of the ASEAN Climate Change and Energy Project (ACCEPT) 2 supported by the Norway-ASEAN Regional Integration Programme. This includes the conduct of the High-Level Policy Dialogue on ‘Sustainable Energy Financing and Mobilisation of Energy Investments to Ensure Energy Security and Achieve the Nationally Determined Contributions in ASEAN’ and the workshop on ‘Carbon Pricing Implementation in ASEAN’ in Bali, Indonesia in July 2023. The Meeting looked forward to further activities from ACCEPT to advance the regional energy-climate nexus collaboration, including the implementation of Energy-Climate Nexus Study Tour to Norway on 4-11 November 2023. The Meeting also noted the conclusion of various MOUs by ACE to further ASEAN’s energy agenda and to support APAEC implementation.

29. On Civilian Nuclear Energy, the Meeting noted that several AMS are exploring nuclear energy for power generation, given the emerging technologies and new developments in the field of nuclear energy. Further, the Meeting acknowledged the need to assess the role of nuclear in providing stable, low-carbon baseload power by exploring the potential utilisation of nuclear energy beyond conventional power plants, including
Small Modular Reactors (SMRs), floating nuclear power plants, and nuclear fusion technologies.

30. The Meeting noted the collective aspiration from AMS towards the achievement of carbon neutrality or net zero emission in the region and the interest to explore the viability of nuclear power to provide stable and clean energy. Further, it was recommended to ACE to further study the emerging technologies including SMRs.

31. The Meeting welcomed continued collaboration in capacity building activities with partners such as the International Atomic Energy Agency, Integrated Support Center for Nuclear Non-proliferation and Nuclear Security of the Japan Atomic Energy Agency, and the World Nuclear Association. The Meeting looked forward to the proposed ‘ASEAN-Korea Experts Academy for Nuclear and Clean Energy’ project by ACE and the Korea Nuclear Association and noted the suggestion to explore the establishment of the ASEAN Centre of Excellence for Nuclear Energy Research and Development, with possible cross-sectoral collaboration with the ASEAN Nuclear Power Safety Research Network and the Large Nuclear and Synchrotron Facility Network under the science and technology sector.

Cooperation with IRENA in Achieving ASEAN Renewable Energy Targets

32. At the AMEM-IRENA Dialogue session, the Meeting discussed the global landscape of renewable energy driven energy transition based on IRENA’s World Energy Transitions Outlook 2023 aligned with 1.5°C climate target. The Meeting appreciated IRENA for promoting specific RE technologies highlighting ocean energy technologies, geothermal energy, hydropower, sustainable bioenergy, along with the importance of availability and affordability of critical minerals in the energy transition. The Meeting looked forward to closer cooperation with IRENA through joint studies and projects that assess the challenges and opportunities, as well as policy recommendations for the deployment of RE resources/technologies, including decentralised RE in the region.

33. The Meeting noted the briefing from IRENA on the landscape for renewable energy finance which showed a good progress in global investments into energy transition technologies, including for energy efficiency which reached a record high of USD 1.3 trillion in 2022. To drive investment in energy transition projects, the Meeting noted that funding needs to focus on supporting energy transition for infrastructure development to enable policy frameworks to address persistent socio-economic gaps and to enhance skills and capabilities. The Meeting appreciated IRENA and GIZ in organising the ‘High Level-CEO Dialogue on Financing Energy Transition and the Role of Private Sector’ and looked forward to IRENA’s support through the investment financing platforms facilitated by IRENA, such as the Energy Transition Accelerator Financing and Climate Investment Platform to support RE projects in ASEAN.

34. The Meeting also appreciated the progress made in the implementation of the 2018 ASEAN-IRENA MoU that contributed to the achievement of the APAEC Phases I and II. The Meeting welcomed the proposed activities under the ACE-IRENA Action Plan to Implement the ASEAN-IRENA MOU for the period 2023-2025. This includes the study and capacity building on green hydrogen, assessments for decentralised RE solutions for remote islands, webinars covering various topics related to RE and emerging technologies, long term energy scenario modeling and training, and joint projects on decarbonisation of industry sector through higher RE utilisation. The Meeting also looked forward to the 3rd
35. The 41st AMEM and the U.S. held discussions to further enhance ASEAN-U.S. energy cooperation in efforts to accelerate the energy transition and decarbonise the energy sector in the region by increasing the deployment of RE sources, as well as low-carbon and emerging energy technologies. The Meeting appreciated the sharing from the U.S. on its new legislations to transform the U.S. energy sector such as the Bipartisan Infrastructure Law, CHIPS and Science Act, and the Inflation Reduction Act (IRA) which incentivise the deployment of clean technologies and lowering of energy costs.

36. The Meeting discussed the progress and future initiatives to implement the ASEAN-U.S. Energy Cooperation Work Plan 2021-2025 under four (4) priority areas on (i) energy security and resilience, (ii) renewable, advanced, and emerging energy technologies, (iii) energy market integration, and (iv) natural gas and petroleum. The Meeting commended the signing of the grant agreement between ACE and USAID SPP in June 2023 at the sidelines of the 41st SOME that will support the implementation of APAEC Phase II and the APG programme area, as well as strengthen the region’s power system by boosting regional energy trade and accelerating the deployment of clean energy technologies. The Meeting welcomed the ongoing development of the Feasibility Study on Regional Energy Connectivity in Southeast Asia by the U.S. Department of Energy and National Renewable Energy Laboratory. The Meeting affirmed its commitment to explore strengthening cooperation with the U.S. in the energy sector through the ASEAN Climate Solutions Hub and other areas of cooperation such as energy security and resilience, as well as emerging technologies.

37. The Meeting noted the conduct of the workshop on ‘Innovative Technologies to Identify and Measure Oil and Gas Sector Methane Emissions in Southeast Asia’ and ‘Roundtable Discussion: Regional Collaboration to Reduce Oil and Gas Sector Methane Emissions in Southeast Asia’ in Bangkok in December 2022 that identified the needs and areas for collaborative action to reduce methane emissions in the region. The Meeting looked forward to the organisation of the SIEW Thinktank Roundtable led by the U.S. on ‘Low Carbon Technology in Decarbonising the Energy Sector’ on 26 October 2023. The Meeting also looked forward to the implementation of the ‘ASEAN Energy Sector Methane Leadership Program’, an 18-month regional initiative on capacity and capability building on methane emissions management for the region, launched on 26 June 2023, in Kuala Lumpur, Malaysia as well as the continuation of the ‘ASEAN Energy Sector Methane Roundtable’.

2023 ASEAN Energy Awards and ASEAN Energy Business Forum

38. The Meeting congratulated the 113 awardees of the ASEAN Energy Awards 2023 that were recognised for best practices in energy efficiency and conservation, renewable energy, excellence in energy management, clean coal technologies, and youth awards. The awards were given in the areas of: (i) Green Building (5 awards); (ii) ASEAN Energy Efficient Building (23 awards); (iv) ASEAN Energy Management in Buildings and Industries (14 awards); (v) ASEAN Renewable Energy (19 awards); (vi) ASEAN Coal Awards (20 awards), (vii) 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 (14 awards); and (vii) ASEAN Energy Youth Awards, (18 awards) that is jointly organised with the Southeast Asia Ministers of Education Organisation and the Ministry of Trade, Industry and Energy of the Republic of Korea, and KEA.

39. The Meeting commended the Ministry of Energy and Minerals Resources of Indonesia and ACE on the successful organisation of the AEBF 2023, including the 3rd ASEAN International Conference on Energy and Environment.

42nd AMEM

40. The Meeting looked forward to the 42nd AMEM in 2024 to be hosted by Lao PDR.

The Meeting expressed their sincere appreciation to the Government and people of Indonesia for hosting the 41st AMEM and its Associated Meetings.