



Hasil ASEAN Ministers on Energy Meeting (AMEM) dan Langkah Maju untuk Mencapai Agenda Iklim dan Energi Bersih di ASEAN

Friday, 20 October 2023

Persetujuan Paris dan Target Iklim di ASEAN

Article 4

1. In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.

2. Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

19. All Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

Sumber: unfccc.int

- Persetujuan Paris (2015) memandatkan kepada Negara Pihak (*Parties*) UNFCCC untuk menyampaikan *Nationally Determined Contribution* (NDC), sebuah dokumen yang memuat komitmen dan aksi iklim sebuah negara yang dikomunikasikan kepada dunia melalui *United Nations Framework Convention on Climate Change* (UNFCCC). **Semua negara telah menyampaikan dan memutakhirkan NDC**
- Selain, Persetujuan Paris (2015) mengimbau Negara Pihak untuk menyampaikan *Low-Term Emission Development Strategy* (LT-LEDS), dokumen yang memuat visi upaya dan aksi perubahan iklim sampai 2050. **Hanya Indonesia (2021), Thailand, Singapore (2020), dan Cambodia (2021) yang menyampaikan dokumen LT-LEDS kepada Sekretariat UNFCCC.**
- Keberadaan komitmen negara/kebijakan iklim yang tertuang dalam NDC ataupun LT-LEDS menjadi penting sebagai dasar untuk mengukur proyeksi (agregat) kenaikan emisi global yang diupayakan tidak melebihi 2 derajat atau lebih baik 1.5 di tahun 20100

The Emissions Targets of ASEAN Member States

| ASEAN Country | Emissions Reduction Target | | Carbon Neutrality / Net Zero Target |
|-------------------|--|--|--|
| | Unconditional | Conditional | |
| Brunei Darussalam | <ul style="list-style-type: none"> 20% GHG emissions reduction by 2030 compared to Business as Usual (BAU) At least 10% GHG emissions reduction by 2035 through better supply and demand management of electricity consumption | N/A | Net zero emissions by 2050 |
| Cambodia | N/A | 42% GHG emissions reduction or 64.5 MtCO ₂ eq by 2030 compared to BAU | Carbon neutrality by 2050 |
| Indonesia | 31.89% GHG emissions reduction by 2030 compared to BAU | 43.2% GHG emissions reduction by 2030 compared to BAU | Net zero emissions by 2060 or sooner |
| Lao PDR | 60% GHG emission reduction compared to the Baseline Scenario, or around 62 MtCO ₂ eq in absolute terms | N/A | Net zero emissions by 2050 conditionally |
| Malaysia | Economy-wide carbon intensity (against GDP) reduction of 45% in 2030 compared to the 2005 level | N/A | Carbon neutrality by 2050 |
| Myanmar | 244.52 MtCO ₂ eq emissions reduction by 2030 | 414.75 MtCO ₂ eq emissions reduction by 2030 | Carbon neutrality by 2050 |
| Philippines | 2.71% GHG emissions reduction by 2030 compared to BAU | 72.29% GHG emissions reduction by 2030 compared to BAU | N/A |
| Singapore | Achieve peak emissions at 60 MtCO ₂ eq around 2030 | N/A | Net zero emissions by 2050 |
| Thailand | 30% GHG emissions reduction by 2030 compared to BAU | 40% GHG emissions reduction by 2030 compared to BAU | Carbon neutrality by 2050 and net zero emissions by 2065 |
| Vietnam | 15.8% GHG emissions reduction by 2030 compared to BAU | 43.5% GHG emissions reduction by 2030 compared to BAU | Net zero emissions by 2050 |

Source: Authors' compilation from the official AMS' NDCs and LT-LEDS

Sumber: ASEAN Energy Outlook 2023

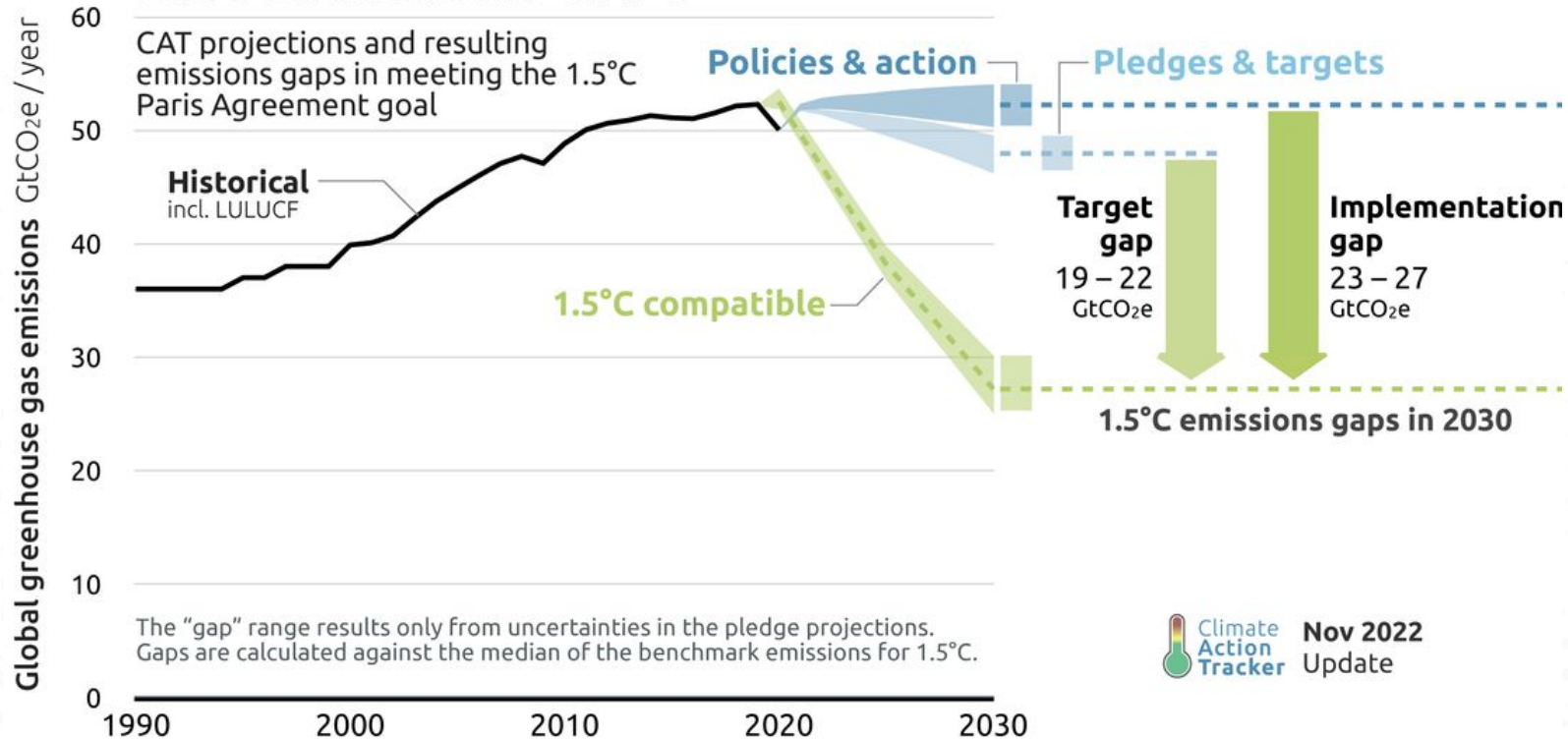
Negara-Negara ASEAN (hanya mencakup lima negara)

| <u>AMS</u> | <u>Overall Rating</u> | <u>Policies and actions against fair share</u> | <u>Conditional NDC target against modelled domestic pathways</u> | <u>Unconditional NDC target against fair share</u> |
|--------------------|-------------------------|--|--|--|
| <u>Indonesia</u> | Highly insufficient | Insufficient | Critically insufficient | Critically insufficient |
| <u>Philippines</u> | Insufficient | Insufficient | 1.5° compatible | Insufficient |
| <u>Singapore*</u> | Critically Insufficient | Policy and actions against modelled domestic pathways: highly insufficient NDC target against modelled domestic pathways: highly insufficient NDC target against fair share: Critically insufficient | | |
| <u>Thailand</u> | Critically Insufficient | Critically insufficient | Insufficient | Critically insufficient |
| <u>Vietnam</u> | Critically Insufficient | Critically Insufficient | Critically Insufficient | Critically Insufficient |

*Singapore is considered as a developed country and thus no “conditional/unconditional NDC target”

Sumber: Climate Action Tracker (climateactiontracker.org)

2030 EMISSIONS GAPS



Sumber: Climate Action Tracker (climateactiontracker.org)

Energi Bersih dan Pertumbuhan Ekonomi ASEAN

Figure 6 – ASEAN Energy Supply Projection

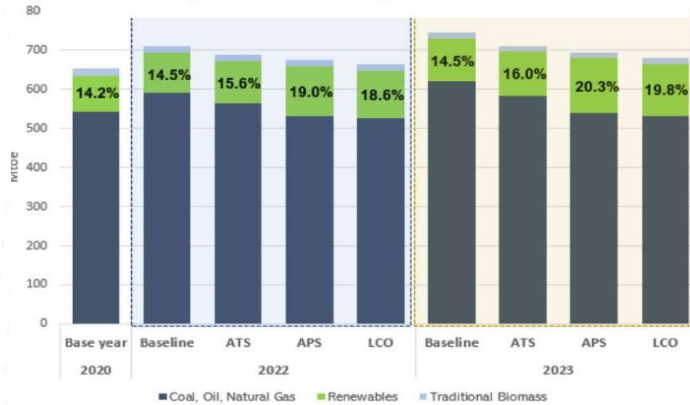
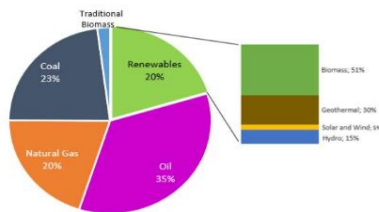


Figure 7 – ASEAN Energy Supply 2023 APS Projection



Sumber: ASEAN Energy Outlook 2023

- Pertumbuhan PDB ASEAN diprediksi akan tumbuh tumbuh sekitar 4.6% di tahun 2023 dan diprediksi menjadi ekonomi terbesar kelima dunia pada tahun 2030 (Jakarta Globe, 2023)
- Pemimpin ASEAN berikrar untuk menjadikan Kawasan sebagai pusat pertumbuhan ekonomi global (ASEAN Leaders' Declaration, 2023)
- Energi memiliki peran penting untuk aktivitas ekonomi Kawasan (industry, transportasi, dan building). Saat ini bauran energi di ASEAN masih didominasi oleh bahan bakar fosil sekitar 83% (WE Forum, 2023) urgensi agenda transisi energi yang menekankan energi terbarukan sebagai penggerak roda perekonomian Persetujuan Paris dan Tujuan Pembangunan Berkelanjutan No. 13 dan No.7.
- Kawasan ASEAN memiliki potensi 17.000 GW yang berasal dari energi bersih (Tempo, 2023).
- Keketuaan Indonesia mengangkat isu energi sebagai salah satu isu prioritas melalui *Priority Economic Development (PED) – Sustainability*. Tema: “Improving Sustainable Energy Security through interconnectivity and market integration”
- Catatan: Tata Kelola isu energi (ASEAN Energy Cooperation) dan iklim (AWGCC) di tingkat ASEAN diatur secara terpisah tantangan

ASEAN Plan of Action for Energy Cooperation phase II



1. ASEAN Power Grid

To expand regional multilateral electricity trading, strengthen grid resilience and modernisation, and promote clean and renewable energy integration.



2. Trans-ASEAN Gas Pipeline

To pursue the development of a **common gas market** for ASEAN by enhancing gas and LNG connectivity and accessibility.



3. Coal and Clean Coal Technology

To optimise the **role of CCT in facilitating the transition** towards sustainable and lower emission development.



4. Energy Efficiency and Conservation

To **reduce energy intensity** by 32% by 2025 and encourage EE&C efforts, especially in transport and industry



5. Renewable Energy

To **increase the share of RE** to 23% in TPES and 35% in installed power capacity by 2025



6. Regional Energy Policy and Planning

To advance energy policy and planning to **accelerate the region's energy transition and resilience**



7. Civilian Nuclear Energy

To build **human resource capabilities on nuclear science and technology** for power generation.

Joint Ministerial Statement of the 41st ASEAN Ministers of Energy Meeting

| | 41st AMEM |
|---|---|
| Host Specific Priority and Important ASEAN milestones | <p>Joint Declaration on Sustainable Energy Security through Interconnectivity, further enhancing and expanding APG and TAGP Developing basis for post-2025 ASEAN vision in the energy sector by highlighting the principle of “just and inclusive energy transitions” while ensuring “energy security, reliability, accessibility, sustainability, resiliency, and affordability.”</p> <p>Acknowledgement of the importance of the overarching ASEAN sustainability agenda which requires cooperation across sectors and pillars. took note of the development and implementation of 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</p> |
| ASEAN Power Grid (APG) | <p>Extension of the existing Memorandum of Understanding (MoU) of APG until 31 December 2025; support APGCC as the lead body for the preparation of the successor APG agreement.</p> <p>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).</p> <p>Commended the release of the Joint Statement initiating the Brunei Darussalam–Indonesia– Malaysia-Philippines Power Integration Project (BIMP-PIP), the first anniversary of the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP) that will work towards continued power trade of up to 100 MW; cross-border electricity trading between Cambodia and Singapore via subsea cables.</p> |
| Trans-ASEAN Gas Pipeline (TAGP) | <p>Emphasized the importance of the continuing role of natural gas in a well-balanced and just energy transition.</p> <p>Extension of the current ASEAN Petroleum Security Agreement (APSA) and drafting of the new APSA agreement in 2024.</p> |
| Coal and Clean Coal Technology (CCT) | <p>Acknowledged the continuing role of coal-based power in ASEAN’s energy security and affordability; called for enhancing intra-regional coal trade Commitment to reduce emissions in ASEAN through the deployment of CCT and Carbon Capture, Utilisation, and Storage (CCUS).</p> <p>Acknowledged the 12 CCUS projects in the pipeline in AMS. Welcomed the on-going development of the ASEAN CCUS Deployment Framework and Roadmap</p> <p>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.</p> |

Joint Ministerial Statement of the 41st ASEAN Ministers of Energy Meeting

| | 41 st AMEM |
|--|---|
| Energy Efficiency and Conservation (EE&C), | <p>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.</p> <p>Encouraged by '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'</p> |
| Renewable Energy (RE) | <p>Welcomed the ongoing preparation of Version-1 of the ASEAN Long-Term RE Roadmap.</p> <p>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.</p> |
| Regional Energy Policy and Planning (REPP) | <p>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.</p> |
| Civilian Nuclear Energy (CNE) | <p>Noted that several AMS are exploring nuclear energy for power generation, given the emerging technologies and new developments in the field of nuclear energy. 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.</p> |

MOU Baru untuk Implementasi APAEC

1. **ACE-PLN-TNB: feasibility study for Sumatra - P. Malaysia subsea interconnection**
2. **ACE-PLN-Sabah Electricity Sdn Bhd (SESB): feasibility study on energy interconnectivity in the BIMP area**
3. **ACE-CASE-ETP: partnership to implement the APG Advancement Programme**
4. **ASEAN-China: clean energy collaboration (research, knowledge sharing)**
5. **ACE-Korean Development Bank: “Supporting Innovative Mechanisms for Industrial EE Financing in Indonesia with Lessons for other AMS**
6. **ACE-JICA: expediting carbonization and sustainable development in ASEAN**
7. **ACE-ADB: collaboration on regional power market development and energy efficiency, and establish an ASEAN-ADB Energy Dialogue**
8. **ACE-JETRO: further collaboration**
9. **ACE-National Solar Exchange: developing a demonstration of a regional energy investment platform**
10. **Three other MOUs with Universiti Tenaga Nasional, Universitas Pendidikan Nasional and Waseda University: research, knowledge exchange, training**

Beberapa Kerjasama ASEAN dan Partner External



Asia Zero Emissions Community (AZEC)

- **Anggota: Australia, Brunei, Cambodia, Indonesia, Japan, Lao, Malaysia, Philippines, Singapore, Thailand, dan Vietnam**
- **Teknologi: hydrogen, ammonia, dan CCUS.**
- **Dukungan Jepang: Pendanaan USD 8 Billion hingga 2023, bantuan penyusunan peta jalan energi, transfer teknologi, dan pelatihan.**

Beberapa Kerjasama ASEAN dan Partner External



Kerjasama Energi Bersih ASEAN dan China

- **Proposal pembentukan ASEAN – China Clean Energy Cooperation Center (ACCEC)**
- **Adanya Kerjasama ASEAN dan China di isu energi diharapkan mampu memberikan terobosan baru untuk transisi energi di ASEAN, mencakup energi terbarukan, pension dini PLTU, industri hijau, serta kolaborasi teknologi energi terbarukan kedua pihak.**
- **Diharapkan dapat mendorong investasi energi terbarukan di Kawasan ASEAN.**

Catatan Keketuaan Indonesia di ASEAN 2023

Selama Keketuaan Indonesia di ASEAN 2023, wacana terkait perubahan iklim, sustainability, SDGs dan transisi energi menjadi arus utama dalam penyusunan di tingkat regional.

Hal tersebut terefleksi dalam prinsip/norma yang dihasilkan atau turunan pelaksanaannya yang berkaitan dengan isu di atas.

1. **Joint Statement on CC to COP-28**
2. **Development of the Roadmap of ASEAN Harmonised Standards to Support Sustainable Development Goals (SDG) Implementation**
3. **Development of the electric vehicle ecosystem**
4. **Transition Financing Framework to support sustainable financing and green economy**
5. **ASEAN Strategy for Carbon Neutrality**

Tantangan kedepannya:

1. **Bagaimana memastikan pelaksanaan gagasan 'hijau' yang sudah diusulkan memberikan prioritas kepada energi terbarukan dan menutup celah bagi teknologi yang secara keekonomian dan teknis belum terlalu teruji (CCUS, CCT, CCS).**
2. **Bagaimana memastikan agenda transisi energi menjadi prioritas keketuaan Laos di 2024.**

Empat Gaps

- **Gap Kelembagaan (*Institutional Gap*) :**

Kerangka kelembagaan ASEAN mengenai isu energi dan iklim masih terpecah (fragmented). Pengaturan tentang Energi di bawah Pillar Ekonomi ASEAN sedangkan pengaturan isu iklim di bawah Pillar Budaya ASEAN. □ perlu pemetaan mengenai peran dan tanggungjawab kelembagaan secara komprehensif □ efektif dan efisien untuk pelaksanaan kebijakan di tingkat nasional dan regional.

- **Gap Ambisi (*Ambition Gap*):**

Penilaian lima (5) negara ASEAN untuk aksi iklim di kategori *highly insufficient, insufficient, critically insufficient* (CAT) □ belum selaras dengan target Persetujuan Paris □ peningkatan ambisi sektor energi Kawasan ASEAN perlu terefleksi di dokumen perencanaan energi regional (APAEC terbaru).

- **Gap Implementasi (*Implementation Gap*)**

Efektifitas pelaksanaan transisi energi regional dan nasional masih terkendala oleh beberapa factor politis/kebijakan maupun teknis. Sebagai contoh, masih adanya delay pelaksanaan JETP dan negara-negara masih memberi ruang bagi teknologi (CCUS, CCS) yang akan mempertahankan ketergantungan ASEAN terhadap bahan bakar fosil.

- **Gap Partisipasi (*Participation Gap*)**

Saat ini partisipasi kelompok masyarakat sipil dan wadah pemikir dalam proses ASEAN masih terbatas. Keterlibatan kelompok ini dapat memberikan input yang penting untuk perumusan kebijakan di tingkat regional, seperti memberikan penelitian teknokratis pembeding.

Langkah Maju Penguatan Strategi Diplomasi Iklim dan Energi Indonesia

- **Penguatan Kebijakan Iklim dan Energi Domestik:**
 - Kondisi domestik merupakan modalitas utama diplomasi iklim dan energi Indonesia, baik di tingkat bilateral, regional, ataupun multilateral. Indonesia perlu mendorong peningkatan ambisi iklim dan juga kontribusi sektor energi untuk penurunan emisi. □ **lead by example**.
- **Mendorong Penyelesaian Empat Gap di Tingkat Regional:**
 - Sebagai negara dengan ekonomi terbesar dan memiliki leverage politik signifikan di ASEAN, Indonesia dapat **mendorong Laos** sebagai keketuaan ASEAN di 2024 **untuk mengangkat transisi (ketahanan) energi sebagai agenda prioritas**.
 - Serta **mendorong pembenahan empat gap** yang sudah disebutkan sebelumnya dalam proses internal ASEAN.
- **Pemantapan Strategi antar Fora Multilateral:**
 - Isu iklim dan energi merupakan isu lintas sektor, pembahasan di tingkat global bisa dibahas dalam forum yang berbeda satu sama lain (G20, UNFCCC, WB, UNGA). □ perlu pemantapan berupa **sinkronisasi komprehensif dan terukur strategi diplomasi iklim**, tidak hanya menyuarakan suara negara berkembang (ASEAN), tapi diarahkan bahwa setiap upaya diplomasi yang dilakukan mampu menghasilkan concrete deliverables (Kerjasama teknis, investasi bersih, atau mobilisasi pendanaan) bagi Indonesia dan ASEAN.

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Institute for Essential Services Reform (IESR)

Jl. Tebet Timur Raya No.48b, RT.9/RW.5,
Tebet Timur, Kec. Tebet, Kota Jakarta
Selatan, Daerah Khusus Ibukota Jakarta
12820



Email

iesr@iesr.or.id



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