ASEAN Energy Transition and Green Value Chains for Carbon Neutrality

Project duration

Start date:
January 2025

Expected close date:
December 2026

Lead implementing partner

Sustainable Energy for All, hosted by UNOPS

Overview of the initiative

This project seeks to enhance ASEAN's multi-sectoral coordination and policy planning for energy transition, to achieve carbon neutrality targets and support the goal of achieving net-zero by 2050. It is designed to enhance institutional capacity and support the implementation of multi-sectoral initiatives which advance regional energy transition and industrial decarbonisation, fostering greater cross-sectoral coordination and collaboration across ASEAN Member States and Timor-Leste.

This will support the implementation of the ASEAN Carbon Neutrality Strategy, published in 2023. The strategy outlines high-level objectives but offers limited guidance on how priorities such as industrial decarbonisation, green value chain development, and globally credible standards for financing and green capabilities will be achieved.

By enabling multi-sectoral dialogue and coordination to build an integrated regional green value chain, the project will strengthen the planning and implementation of regional and national industrial development policies and regulatory frameworks. This contributes to a more resource-efficient and sustainable ASEAN regional economic community.

By strengthening support for multi-sectoral coordination, the project will enhance the ASEAN Secretariat's ability to integrate workstreams on energy, minerals, transport, trade and industry, thereby supporting ASEAN Member States and Timor-Leste in realising their 2025 ASEAN Economic Community Vision.

Key objectives

The project will develop an ASEAN Energy Transition and Investment Roadmap (ETIR) to provide an evidence-based assessment of decarbonisation pathways and investments for mitigation action across all sectors of the economy. Informed by the ETIR, the project will implement policy measures and activities that facilitate an integrated ASEAN green value chain, anchored in renewable energy manufacturing and sustainable critical minerals management and aligned with ASEAN's regional priorities.

There will be three key phases: 1) regional scoping, 2) national-level demonstration and 3) regional technology and financial policy frameworks. These can be applied to the local contexts to unlock investments at scale, across ASEAN. The ASEAN ETIR will:

1. Identify optimised, least-cost technology options across all sectors of the economy to support ASEAN Member States and Timor-Leste and the wider region in achieving national decarbonisation targets and the ASEAN carbon neutrality strategy, while also estimating the scale of investments required. Capacity-building activities will ensure that knowledge, skills and tools are effectively transferred and institutionalised within the ASEAN Secretariat and/or ASEAN Member States and Timor-Leste.

2. Deepen analysis of industrial decarbonisation recommendations, focusing on the development of policy advice for establishing regional green value chains and rolling out of energy-efficient industrial hubs. This will include identifying regional and national actions necessary to establish technology and investment readiness frameworks.

3. Convene regional investor dialogues to operationalise policy recommendations identified at the regional and national levels for clean power technologies, industrial decarbonisation, manufacturing and energy-efficient industrial hubs. These dialogues will adopt a marketplace approach that facilitates project identification and matchmaking, while addressing information asymmetries among interested ASEAN Member States and Timor-Leste, on green industrial hub opportunities.

Alignment with ASEAN vision, plan and priorities

The project will focus on identifying regional green industrialisation priorities through the ASEAN Energy Transition and Investment Roadmap (ETIR). It will align them with regional policy roadmaps and plans and build capacity for the key stakeholders involved in implementing regional policy frameworks such as the ASEAN Carbon Neutrality Strategy, ASEAN Minerals Cooperation Action Plan - III/Minerals Development Vision and Post-2025 ASEAN Economic Community.

Reports, roadmaps and other analytical resources generated by the project will serve as tools to inform regional policy dialogue and support effective implementation and investment mobilisation through engagement with industry, financial institutions and other development partners. For example, the assessment of green value chain development will build upon the earlier identification of renewable energy manufacturing opportunities in ASEAN and seek to address specific challenges in integrating the regional value chain.

The involvement of the ASEAN Secretariat as a key project partner will facilitate coordination with ASEAN Member States and Timor-Leste across sectors and bilateral partners. Project activities will also include bilateral engagements with ASEAN Member States and Timor-Leste through ASEAN Chair consultations, country-specific capacity-building for energy transition and energy efficiency, amongst others. Thus, bilateral and regional engagement across various project activities should be ensured for improved traction of policy recommendations.

"Supporting green value chain development in ASEAN will enable the region's green economic growth priorities while ensuring no one is left behind in the clean energy transition. The project will provide evidence-based approaches for developing an ASEAN green value chain with recommendations for regional and national policies supporting industrial decarbonisation."

Jacqueline Lam
Regional Director for Asia

Long-term outcomes

1. The implementation of the ASEAN Carbon Neutrality Strategy is guided by comprehensive regional technology and investment assessments across renewable energy, hydrogen, e-mobility, industrial decarbonisation, energy storage and Carbon Capture, Utilisation and Storage (CCUS). These assessments also outline corresponding policy measures and financing mechanisms including carbon financing, to enable effective implementation of the strategy.
2. Regional green value chain development is strengthened by addressing integration and capacity gaps, advancing the ASEAN Carbon Neutrality Strategy and the ASEAN Mining Development Vision.
3. Industrial and SME hub decarbonisation is accelerated through regional frameworks for energy efficiency and targeted solutions for hard-to-abate sectors under the ASEAN Carbon Neutrality Strategy.
4. Regional institutional capacity is enhanced to deliver regional and national energy transition priorities in support of the Post-2025 ASEAN Economic Community and the ASEAN Carbon Neutrality Strategy.