ENERGY TRANSITION PARTNERSHIP

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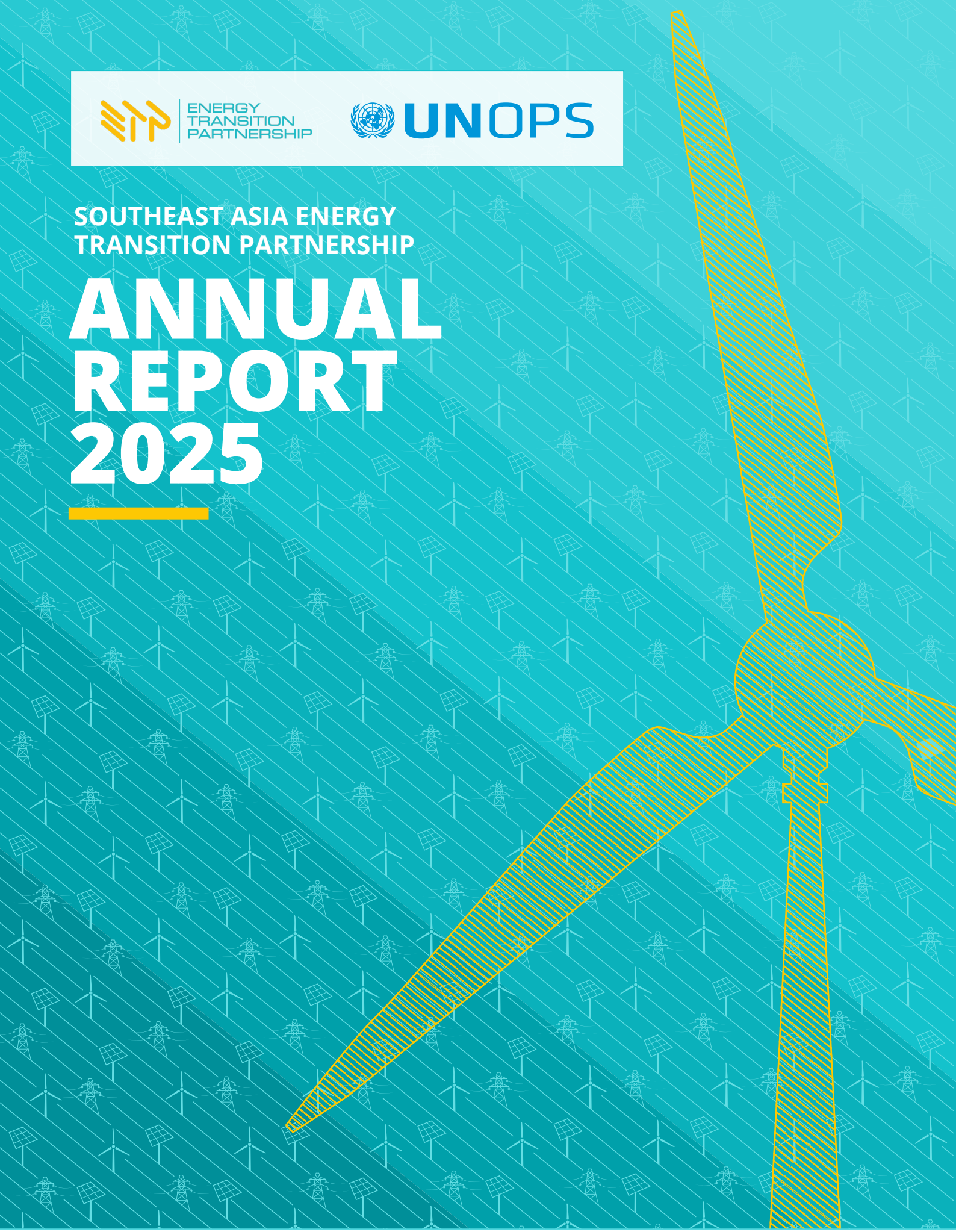
SOUTHEAST ASIA ENERGY TRANSITION PARTNERSHIP

ANNUAL REPORT 2025



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THE SOUTHEAST ASIA ENERGY TRANSITION PARTNERSHIP

Annual Report 2025

Produced and designed by:
Southeast Asia Energy Transition Partnership

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About Us

The Southeast Asia Energy Transition Partnership (ETP) was established in 2020 under a shared vision by philanthropies and governments at the 2018 Climate Action Summit. Since its inception, ETP has evolved from a startup initiative into a respected regional actor, working towards a just energy transition in Southeast Asia. A programme of the United Nations Office for Project Services (UNOPS), ETP has mobilized nearly $70 million to date through its multi-donor partnership model to deliver projects across Indonesia, the Philippines, Viet Nam and through the regional programme.

By bridging the gap between policy and technical implementation, ETP works alongside governments to transition towards clean energy systems, ensuring that economic growth and energy security are balanced with environmental sustainability. ETP supports partner countries to reach their climate targets; aligning actions with the Paris Agreement and the United Nations Sustainable Development Goals, while leveraging a growing network of development partners and technical experts.

More information about the data and results presented in this report can be referred to via our Results-based Monitoring Framework

Foreword

Southeast Asia is projected to account for 25% of global energy demand growth through 2035.[1] Expansion is currently largely dependent on fossil fuels, which risks locking the region into a cycle of escalating emissions and climate vulnerability. While ASEAN nations have pledged ambitious net-zero targets, fragmented infrastructure and investment gaps continue to hinder the pace of the transition. The Southeast Asia Energy Transition Partnership (ETP) provides technical expertise required to bridge these gaps and convert political commitments into bankable and actionable energy investments.

The 2025 Annual Report is a major milestone for ETP, as it follows the launch of an ambitious 5-year strategy. In a year of shifting global policies and geopolitics, ETP has adapted to the changing landscape and focused on achieving transformative results across Indonesia, the Philippines, Viet Nam and our expanding regional programme.

In Viet Nam, ETP launched 20 national standards for offshore wind development and supported the establishment of the regulatory framework for the country's pilot emissions trading system. In Indonesia, we finalized the National Net-Zero Roadmap and identified 'ready-to-go' zones to catalyse solar investment in support of the nation's 100 GW target. Our long-standing commitment to the Jawa-Madura-Bali Grid has progressed to include human resource development via the Specialized Workforce for Indonesia's Future Transition (SWIFT) in Energy project, a strategic initiative designed to bridge the green skills gap. In the Philippines, ETP is enabling future offshore wind investments by streamlining permitting processes with the potential to unlock 16 GW capacity and is driving pivotal market reforms through the wholesale electricity spot market. Beyond individual borders, ETP is fostering a unified regional architecture; we secured the official endorsement of the Roadmap for Multilateral Power Trade in ASEAN and are working towards the establishment of the ASEAN School of Regulation to build institutional capacity for a cross-border renewable energy market. Furthermore, initiatives such as the inaugural Sharing Perspectives to Advance Regional Knowledge (SPARK) dialogue on Energy Transition in Southeast Asia is facilitating peer-to-peer policy innovation on complex challenges like coal phase-down and carbon pricing.

As ETP enters its next 5 years, with nearly $70 million mobilized to date, we will focus on realizing and scaling up clean energy deliverables. This includes unlocking large-scale renewable energy and energy efficiency projects and catalysing investments to accelerate progress. The 2025 Annual Report details a year of progress across our key thematic areas; achievements made possible through close collaboration with our government, civil society and private sector partners. We remain deeply grateful for the steadfast support of our Steering Committee and multi-donor partners. I look forward to deepening our cooperation as we power a sustainable, inclusive and resilient future for the region.

Philip Timothy Rose
Director—Southeast Asia Energy Transition Partnership

1 *International Energy Agency (IEA), Southeast Asia Energy Outlook 2024, World Energy Outlook Special Report (October 2024)*

Indonesia

25 PROJECTS
● 14 completed
▨ 11 ongoing

THEMATIC AREA
Renewable energy

ETP developed pre-feasibility studies and detailed solar mapping across selected regions in Indonesia to identify high-potential zones for utility-scale solar deployment. These studies provide the data necessary for investors and developers to prioritize site locations and design technically and economically viable solar projects. The completion of this study coincided with a presidential announcement outlining a vision to develop 100 GW of solar power in Indonesia.[2] ETP's analysis supports this goal by identifying the most feasible 1 to 2 GW of potential development with total investment estimated at $1.58 billion.


Credit: Worawee Meepian

ETP supported the Ministry of Energy and Mineral Resources (MEMR) to update their five-year medium-term strategic plan, prioritizing national renewable energy development. Completed in September 2025, the plan's development involved extensive research and data-triangulation with other ministry directorates to ensure comprehensive policy integration and alignment with national development planning. This highly consultative process enabled the ministry to align its strategy with national targets, as well as Indonesia's domestic and international climate and energy policy commitments. In December 2025, this work was formalized with the adoption of the updated strategic plan of the Directorate General of New and Renewable Energy and Energy Conservation.[3]

THEMATIC AREA
Energy efficiency and conservation

Although Indonesia represents one of the world's largest potential energy efficiency markets and is heavily reliant on a sustainable energy efficient industrial sector to achieve its net-zero goal, this sector remains non-existent. The absence of successfully implemented projects leads to a lack of proof-of-concept for key stakeholders, particularly financiers and policymakers, consequently generating scepticism toward energy efficiency practitioners and the energy service company (ESCO) business model.

To address this void, ETP was appointed to lead the Energy Efficiency and Electrification Working Group under the JETP framework,[4] and contributed to the *Energy Efficiency and Electrification Investment Report* launched in December 2025.[5] This document extends the themes of the Just Energy Transition Partnership (JETP) progress report, with a specific concentration on energy efficiency and electrification investments. This report provides a strategic roadmap for Indonesia's energy transition by integrating supply-side upgrades and demand-side efficiency with accelerated electrification in transport, buildings, and industry. By combining data and international best practices, the document identifies critical gaps and outlines a technical foundation for key policy initiatives through 2030, including the Supply-Side Efficiency Pathway and necessary investment frameworks. It serves as a practical guide for the Indonesian government, bridging the gap between high-level diagnostics and actionable reforms to ensure a more efficient, electrified, and modern energy landscape.

ETP is also advancing regulatory and practical support for ESCOs, which has led to the development of the MEMR regulation for ESCOs, which will be

2 *Tempo: "Energy Minister Announces 100 GW Solar Power Plant Plan for Village Cooperatives"*
3 *Established through the issuance of Ministry Regulation No. 20/2025 on the MEMR Strategic Plan 2025-2029.*
4 *The working group is a collaborative effort between national and international partners, including the International Energy Agency, World Resources Institute, Universitas Gadjah Mada, Indonesia-Denmark Energy Partnership Programme, and Net Zero World Initiative*
5 *(1) https://jetp-id.org/news/launching-e3-study*
(2) https://id.jetp-id.org/berita/laporan-tematik-5-efisiensi-energi-dan-elektrifikasi

officially enacted in early 2026.[6] This regulation is designed to create an enabling environment for the establishment and growth of ESCOs in Indonesia, in order to catalyse energy efficiency implementation across both industries and buildings by providing capital recovered through energy savings. ETP supported the Government to develop implementation guidelines for ESCOs, targeted at both ESCO providers and financial institutions, to facilitate effective market uptake and financing.

What are ESCOS?
An energy service company (ESCO) is a commercial entity that designs and implements energy-saving projects by assuming the technical and financial risks. Unlike a traditional contractor, its compensation is directly tied to the project's actual energy performance, allowing clients to modernize infrastructure without upfront capital.

ETP is working to establish an investable and functional energy efficiency market in Indonesia by 2030, through the development of bankable projects and testing business models to attract investments. Phase I of the initiative is complete and the initiative is currently finalizing contracts for energy efficiency as a service with 5 selected project owners that are supported by investment grade audits, following initial technical audits provided to 25 potential candidates. This effort provides evidence-based examples for policymakers and financiers, enabling ESCOs to develop a reliable project pipeline to implement energy efficiency. ETP's implementing partner for this project has raised $1.1 million of equity that will be applied to the projects signed under this initiative.

THEMATIC AREA

Resilient power grid and energy storage

The Battery Energy Storage Systems Project has transitioned from its technical analysis phase and is now developing financial modelling to define viable business structures. Key findings from this analysis were disseminated in December 2025. ETP's future focus involves providing dedicated technical assistance to establish regulatory frameworks, including the creation of national standards and policy structures. This work aims to accelerate Indonesia's energy transition by ensuring the effective and reliable integration of battery energy storage systems into the national energy infrastructure.

ETP maintains a long-standing commitment to the modernization of Indonesia's main electricity grid management hub, the Jawa-Madura-Bali (JAMALI) Control Center, which manages approximately 70% of Indonesia's power generation capacity. ETP's technical assistance for the JAMALI project has evolved significantly. Originating with essential infrastructure and software upgrades, the project scope now includes advisory services and soft-skills development for staff. The overall JAMALI project aims for dual readiness: establishing infrastructure to absorb increased renewable energy, and human resource readiness through knowledge transfer to staff of the country's state electricity company (PLN). Core capacity building activities have been delivered, including technical assessments, inspection tests, supervision of material delivery to the new building, and dedicated training for 41 staff members to ensure the PLN team can proficiently operate the new technology.


Credit: PLN UIP2B Jamali

THEMATIC AREA

Sustainable supply chain

ETP delivered a comprehensive investment roadmap for Indonesia's integrated battery supply chain. This included recommendations to enhance environmental and social aspects related to its implementation. The roadmap is intended to attract increased international investment and minimize reliance on imports by guiding the Government on the placement of incentives and by strategizing future technology selection based on domestic resource availability.

6 *The enacted regulation: ESCO Regulation (PERMEN ESDM 1/2026): Boosts energy efficiency investment.*

THEMATIC AREA

Just transition

The Just Transition Framework, initially introduced within the JETP Comprehensive Investment and Policy Plan, defines 9 standards encompassing social and environmental safeguards, economic diversification and community resilience. ETP's technical assistance completed Phase I, which focused on developing a comprehensive operationalization guide for all 9 standards. This guide ensures that stakeholders, including national policymakers, project developers and local communities, can apply just transition principles consistently across projects at both subnational and national levels. Phase II of the project, supported by the UK's Foreign, Commonwealth and Development Office, was completed including the delivery of pilot studies at select geothermal and wind power plants. These pilots assess the framework's implementability in real-world settings and refine the existing standards based on practical findings.

Credit: Southeast Asia Energy Transition Partnership

ETP also completed a macroeconomic impact analysis of the decarbonized captive power market to support industrial decarbonization projects. This introduced the Greener Captive Power for Industrial Sector Framework, which is currently under development.[7]

THEMATIC AREA

Market mechanisms

ETP led a study to identify and design incentive mechanisms crucial for unlocking investment in renewable energy in support of the coal phase-down in Indonesia. The project assessed tariff adjustments, both fiscal and non-fiscal incentives, and innovative transition finance instruments aimed at mobilizing both public and private capital. The project identified key regulatory gaps in the existing incentive and disincentive frameworks with the intention to eventually create an enabling environment for all energy transition initiatives.[8]

The Carbon Border Adjustment Mechanism (CBAM) project consists of 2 main components: a macro-level analysis to help the Government understand the potential economic implications of CBAM (stemming from the European Union and potentially other countries), and an industry readiness component. The latter involved completing impact assessments and conducting capacity building on vital topics including measurement, reporting and verification protocols. The project assisted the Government in upgrading the national green industry standard for alignment with international negotiations. A white paper on an emission trading scheme for the industrial sector was additionally developed; framing CBAM as an opportunity to accelerate industrial decarbonization and enhance product competitiveness.

THEMATIC AREA

Coal phase down / phase out

ETP delivered a comprehensive mapping of over 400 captive power assets in Eastern Indonesia and co-produced a macroeconomic impact analysis report in partnership with the Ministry of Industry. This helped the project select 10 industrial sites for in-depth case studies. The project is set to deliver national and sectoral decarbonization strategies that will inform future government regulatory frameworks.

Credit: Tom Fisk

7 *Site visits are set to take place at 10 locations to gain a detailed understanding of challenges, decarbonization potential and the viable business models within the captive power sector.*

8 *This incentive mechanism project is expected to make a significant contribution to the forthcoming revision of Presidential Regulation 112/2022.*

Credit: Southeast Asia Energy Transition Partnership

THEMATIC AREA

Knowledge and awareness-raising

ETP directed efforts on human capital development to ensure a skilled workforce capable of supporting the country's clean energy transition. As part of these efforts, ETP co-developed the Strategic Workforce for Indonesia's Future Transition Roadmap in partnership with the Centre for Human Resources Development in Electrical Power, New and Renewable Energy, and Energy Conservation (PPSDM KEBTKE). The roadmap provides a foundation for a just transition by introducing specialized curricular and certification processes, and identifies the skills and institutional frameworks necessary to support renewable energy growth. The roadmap was launched at the annual MEMR Human Capital Summit.[9]

ETP established the PLN Centre of Excellence for Energy Transition, a national platform for energy transition. The centre fosters knowledge sharing, business ideation and training through the curation of technical studies, best practices and learning materials developed with the support of ETP and its partners. Through this, an 11-module training programme was integrated into the PLN Corporate University curriculum, with sessions expected to reach approximately 900 participants. To align with global energy transition standards, the initiative also includes an assessment of international partners, enabling the identification of stakeholders for potential internships, site visits and technical collaborations.

9 *Republik: "Diluncurkan, Peta Jalan Nasional Pengembangan SDM Pendukung Transisi Energi Indonesia"*

Philippines

23 PROJECTS
- 13 completed
- 10 ongoing

THEMATIC AREA

Renewable energy

In support of the Philippines renewable energy target of 50% by 2040, ETP developed a comprehensive guidebook detailing the permitting and consenting processes for offshore wind projects. Philippines' high offshore wind potential has been prioritized by the Government, therefore the guidebook serves as a valuable asset, which has since been disseminated to key permitting agencies and made publicly accessible on the Department of Energy (DOE) website.[10]

Credit: Southeast Asia Energy Transition Partnership

ETP also supported the DOE in the development of marine spatial planning tools. This was shared with 16 leading offshore wind developers, representing approximately 16 GW of potential capacity.[11] To enhance the tool's methodology and underlying data, the DOE and the Department of Environment and Natural Resources will conduct a joint peer review, underscoring a significant increase in interagency coordination resulting from the project.

The draft policy for the voluntary renewable energy market (VREM) is progressing, with the DOE currently setting in place a framework for its operationalization. VREMs stimulate renewable energy investment by providing developers with an additional revenue source. This expands the market and improves project bankability, making it easier to secure necessary funding

What is a voluntary renewable energy market?
In a voluntary renewable energy market, businesses and individuals take sustainability into their own hands. By purchasing renewable energy certificates beyond what the law requires, they directly support the growth of wind and solar power while making measurable progress toward their net-zero goals.

As part of the Philippines' National Energy Consciousness Month in December, the DOE hosted a public VREM dialogue, signalling the Government's preparation for the market's opening to potential buyers and suppliers of renewable energy certificates.[12]

Work on the new National Renewable Energy Program is underway, which serves as the DOE's strategic plan for transitioning the country's power supply toward the renewable energy targets of 35% by 2030 and 50% by 2040. ETP is supporting the DOE to develop a plan, with the first draft to be made public in 2026; inclusive of a reference document and a detailed roadmap outlining the DOE's key priorities and action items on renewable energy.

THEMATIC AREA

Resilient power grid and energy storage

ETP has completed the Clean Energy Investment Scenario Plan, a crucial document that provides detailed insights on the necessary transmission capacity and investment required to meet the Philippines' clean energy targets. This plan specifically details how clean energy scenarios will replace or displace coal-fired power plants and analyses the resulting implications for grid stability. The first draft of the plan is complete and is scheduled for release in 2026. ETP's goal of

10 *(1) https://legacy.doe.gov.ph/press-releases/ph-launches-comprehensive-guidebook-boost-offshore-wind-energy-projects (2) https://legacy.doe.gov.ph/announcements/osw-guidebook-permitting-and-consenting-offshore-wind-energy-philippines*
11 *DOE advisory on MSP*
12 *DOE: "Empowering Filipino prosumers through voluntary RE Market"*

enabling a resilient power grid was strengthened through workshops with technical experts and stakeholders, supporting policy development, target setting and investment attraction for renewable energy infrastructure.

Concurrently, ETP has supported improvements to hydro energy storage viability by identifying over 30 potential sites for pumped storage hydro projects. This initiative is set to deliver a market assessment report on commercial viability and a white paper on repurposing abandoned mining sites for such projects.

In support of grid modernization, 15 electric cooperatives have completed geographic information system data collection as part of the smart grid distribution project. ETP is also providing essential assistance to the Energy Regulatory Commission in developing its microgrid rules, mandated by the Microgrid Systems Act (published April 2025). These rules, which will govern licensing, technical standards, pricing and subsidies for microgrid system providers, are currently being finalized by the commission.

What progress has been made through the Microgrid Systems Act?
Following the enactment of the Microgrid Systems Act in January 2022 and the subsequent issuance of the revised Implementing Rules and Regulations in April 2025, the Energy Regulatory Commission has been tasked with developing the necessary responsive frameworks. ETP's technical support ensured the commission's proposed microgrid rules remain strictly aligned with the act, its revised rules and regulations, and broader energy policies.

ETP has initiated work to maximize the value of the Philippines' considerable reserves of 4 key minerals (copper, cobalt, nickel and chromium) which are currently under-leveraged due to being predominantly exported in raw form. The programme coordinated an inaugural roundtable, during which initial findings on the supply chain dynamics for these minerals were presented. Ongoing project activities will culminate in a detailed cost-benefit analysis and the development of an investment framework aimed at enhancing domestic processing capacity.


Credit: Pexels

THEMATIC AREA

Market mechanisms

The rising share of intermittent renewable energy sources within the wholesale electricity spot market in the Philippines has introduced significant market volatility, highlighting the outdated price mitigation caps (originally set in 2014). To address this challenge, ETP supported the Philippines Electricity Market Corporation's comprehensive review process, including two focus group discussions with the Energy Regulatory Commission and the DOE. The project identified the need to urgently update the market price caps and establish clear, enforceable reliability standards. ETPs contribution to the work directly resulted in the ERC formally requesting a detailed analysis and scheduling a public hearing to implement updated price mitigation measures and caps, marking a decisive step toward enhancing market stability.

THEMATIC AREA

Knowledge and awareness-raising

Regional energy governance was strengthened through essential planning and capacity-building support by ETP to the Ministry of Environment, Natural Resources and Energy of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). This effort directly facilitated the establishment of the region's Sustainable Energy Master Plan. Key activities undertaken included focused discussions on energy planning with the DOE, field visits and stake-holder workshops covering topics such as renewable energy project development.

Credit: ©Philippines Ministry of Environment, Natural Resources, and Energy (2025)

This initiative culminated in the near finalization of the Master Plan, which has significantly enhanced the ministry's long-term energy planning capabilities. ETP's contribution was formally recognized during a special parliamentary session. The salient points of the BARMM energy sector and its development, formed in the Master Plan, were presented during the first-ever Bangsamoro Sustainable Energy Summit. The event provided an avenue for national and regional government agencies to collaborate with development partners to support BARMM in its regional development goals.

Credit: Southeast Asia Energy Transition Partnership

In the latter half of 2025, ETP initiated the Sustainable Energy Planning for Local Government Units project. This initiative aims to establish the Local Government Academy as the premier centre for local sustainable energy planning. A comprehensive capacity development plan is currently under development, detailing a strategic approach to upskilling local executives and mid-level officials through targeted training programmes.

In December 2025, ETP launched a project to provide studies exploring the potential macroeconomic implications, workforce risks and social impacts of a domestic coal mining phase-out at the community level. This included an anticipated macroeconomic assessment of the coal mining phase-down – focused on Antique Province, the country's largest source of domestically mined coal – which is slated for completion in early 2026.

Viet Nam

26 PROJECTS
- 18 completed
- 8 ongoing

THEMATIC AREA

Carbon market development

ETP's technical assistance contributed to Viet Nam's adoption of key policy instruments, enabling the transition from carbon market planning to operational readiness. ETP's efforts aligned with the approval of a national scheme for the establishment and development of Viet Nam's carbon market, advancing implementation arrangements under the national scheme, and regulating the domestic carbon exchange.[13, 14, 15]

A core result was the strengthening of the operational content of the national carbon market scheme.[16] ETP provided technical inputs on market architecture, including options for a carbon trade exchange, which helped translate strategic objectives into clearer institutional and operational directions, reducing ambiguity around implementation. ETP delivered decision-support and impact assessment on critical emissions trading system (ETS) design choices, including sectoral scope and allowance allocation for the pilot phase.[17] This support enabled evidence-based Government decisions that balance environmental integrity with administrative feasibility, reducing risks associated with weak or overly complex initial ETS design. In late 2025, ETP helped operationalize the carbon market by providing technical analysis for the domestic carbon exchange's operating model. These insights shaped a national decree that defines the legal and procedural framework for trading carbon allowances and credits.[18] The pilot phase is now better positioned for success, due to more defined transaction models and institutional responsibilities.

To prepare for Viet Nam's 2026 carbon market launch, ETP trained over 650 key stakeholders and surveyed 237 major emitters through hands-on simulations. These efforts boosted local expertise and buy-in, nearly doubling the number of participants who view the system as essential and raising confidence in its cost-effectiveness to 74%. By aligning the public and private sectors on practical rules and reporting, the project lowered implementation risks and built a solid foundation for the country's net-zero goals.[19]


Credit: Southeast Asia Energy Transition Partnership

ETP is set to support Viet Nam launch a high-integrity carbon market aligned with the Paris Agreement. By closing regulatory gaps and establishing clear rules for international credit transfers, the initiative supports the issuance of a new government decree and national offsetting standards. These steps are designed to boost investor confidence, reduce risks for the 2026-2028 ETS pilot, and position Viet Nam as a credible supplier of high-quality carbon credits that directly support its national climate goals.

The Carbon Labelling Project establishes a government-led voluntary framework designed to prepare Viet Nam's public and private sectors for future carbon pricing and international trade requirements, such as the EU's Carbon Border Adjustment Mechanism. By piloting emission measurement and verification methodologies, the project provides enterprises (in carbon-intensive export sectors) with the tools to systematically report and reduce greenhouse gas emissions in line with international standards. At the institutional level, it equips the Ministry of Agriculture and Environment and the Department of Climate Change with tested policies and technical guidance that serve as a practical bridge toward mandatory disclosure.

13 *Decision No. 232/QĐ-TTg (January 2025).*
14 *Decision No. 119/QĐ-TTg (June 2025).*
15 *Decree No. 29/2026/NĐ-CP (January 2026).*
16 *Decision 232/QĐ-TTg.*
17 *Reflected in Decisions 232/QĐ-TTg and 119/QĐ-TTg.*
18 *Decree 29/2026/NĐ-CP.*
19 *Technical capacity gains were equally pronounced, with the proportion of participants able to clearly explain carbon pricing rising from 6.1% to 37.4%, and overall understanding of ETS and carbon-market mechanisms increasing from 10.4% to 59.2%.*

THEMATIC AREA

Energy efficiency


Credit: Poguz. P

ETP provided critical technical and analytical support to sharpen Vietnam's national climate and green investment policies within the cooling sector. ETP defined institutional arrangements and monitoring frameworks for the phase-out of ozone-depleting substances, accelerating the transition to high-efficiency cooling technologies.[20] This support extended to the development of the National Green Taxonomy, where ETP provided technical indicators for 14 investment project types and 40 economic codes. These inputs ensured that cooling-related projects are now consistently assessed under environmental screening criteria, such as greenhouse gas reduction potential and energy performance. By engaging over 200 stakeholders through workshops and consultations, ETP strengthened the evidence-based foundation of these regulations, helping the Government direct capital toward low-emission technologies while ensuring national policies remain robust and internationally aligned.

ETP implemented an energy efficiency project focused on food processing and related supporting industries. Through 9 specialized training courses, the initiative engaged 508 participants from 177 enterprises, while 16 manufacturers advanced to high-level energy investment assessments. This technical groundwork resulted in 4 major bankable projects that integrate advanced technologies, with over $298k investment secured by the end of 2025 and over $2M expected in the first quarter 2026 Beyond individual factories, the project fostered a national energy efficiency network connecting over 200 enterprises with energy service companies and financial institutions, supported by a new pilot benchmarking tool for performance tracking. The project produced 12 technical reports and a roadmap for a national energy service company association to ensure long-term market growth. The initiative successfully integrated social inclusion by exceeding its gender targets, with women making up over 35% of all participants, providing a strong foundation for a proposed second phase focused on large-scale industrial decarbonization.

THEMATIC AREA

Renewable energy development

ETP supported the development of 20 new national standards for offshore wind power covering the full range of offshore wind power technologies and systems, aligned with international standards and adapted to Viet Nam's specific offshore conditions such as tropical storms, high humidity, saline corrosion and seismic risks.[21] The standards framework for offshore wind reduces regulatory and technical uncertainty, providing a clear roadmap for both investors and regulators. By aligning with the revised Power Development Plan VIII, these standards directly support Viet Nam's strategic goal of scaling offshore wind as a key pillar for achieving net-zero emissions by 2050.


Credit: Nguyen Thi Hang

ETP's findings have provided an important analytical reference for the national decision-making, contributing to the official recognition of battery technologies as one of 11 strategic technologies for Viet Nam, with a specific focus on the energy sector. Research outputs have been transferred to the Government and were integrated into a Prime Minister's decision to create a framework that enables access to budget allocations and incentives to support private investment, human resource development, research and development, and supply chain localization.[22]

20 *By contributing to the Prime Minister's Decision No. 496/QĐ-TTg*
21 *IEC61400 series standards*
22 *Decision No. 1131/QĐ-TTg (June 2025).*


Credit: Pexels

ETP is developing a bankable foundation for the development of the Lam Son Clean Energy Complex in Khanh Hoa Province, a large-scale integrated renewable energy hub.[23] A preliminary study provided the technical and financial roadmap needed to de-risk investment and mobilize approximately $3.98 billion for a large-scale integrated energy project in Viet Nam. The project supports both grid resilience and development within the Khanh Hoa Province, by enabling potential to deliver 1.5 GW of stable power through a replicable solar-storage-hydropower model.

In June 2025, the Government approved revisions to the Law on Public-Private Partnership (PPP) and its implementing decree, marking an important milestone in the sector. The revisions simplified aspects of PPP project development and licensing processes and enhanced revenue-sharing and incentive mechanisms; broadening opportunities for renewable energy, grid and BESS projects of varying scales under the PPP model. During this period, ETP was engaged in related discussions and technical exchanges in the same policy space. Through its activities, the project contributed perspectives on innovative financing approaches, including blended finance mechanisms, as part of the broader dialogue on mobilising non-state investment capital. This work was aligned with the Ministry of Finance's mandate under the Strategy for National Energy Development and its implementation plan. The resulting reforms reflect the collective efforts of multiple institutions and stakeholders working in parallel, within which ETP's engagement formed one contributing element.

23 *The energy hub comprises up to 3,500 MWp of solar PV, 1,440 MW of pumped-storage hydropower, and 350 MW of battery energy storage systems (BESS).*

24 *EVN: "Phát triển năng lượng tái tạo trong khu công nghiệp: Lợi thế cạnh tranh gắn bảo vệ môi trường"*

25 *Resolution No. 306/NQ-CP (October 2025)*

THEMATIC AREA

Grid reliability and energy security

ETP provided technical expertise to establish Viet Nam's first technical foundation for electric vehicle growth by developing 8 national standards for charging infrastructure. Aligned with international ISO 15118 protocols, these standards resolve existing gaps in safety and interoperability, providing the legal framework necessary for nationwide licensing and deployment of charging stations. By training over 150 stakeholders (including regulators, manufacturers and customs authorities) the project has significantly reduced regulatory uncertainty. This unified technical landscape is expected to unlock large-scale public and private investment, enabling a seamless and safe charging network across the country.


Credit: tatyanakorenyugina

Industrial parks account for approximately 47% of the country's electricity consumption, yet many face power shortages, limited access to clean energy, and significant challenges in advancing the green transition.[24] In response to this, ETP led the Pilot Energy Investment and Planning for Industrial Parks and Economic Zones: Thang Long II project which successfully concluded in 2025. Designed to align with green investment requirements, the project strengthened electricity supply infrastructure, optimized regional power distribution, and mobilized private sector investment to support stable and sustainable energy systems within industrial parks. The project delivered an investment and design blueprint for rooftop solar and Battery Energy Storage System (BESS) at Thang Long II Industrial Park, supporting its expansion to 100 MW. This case study now serves as a national model for eco-industrial development, directly aligning with the National Socio-Economic Master Plan's objectives for green energy integration and resource efficiency.[25]

The Development of National Standards for BESS project achieved a landmark outcome by delivering Viet Nam's first-ever set of 15 national standards (TCVNs) for BESS, closing a critical regulatory and technical gap in the country's power sector. These standards provide coverage across the BESS lifecycle,[26] and are adapted to Viet Nam's tropical climate, grid conditions, and institutional context. The project addressed long-standing barriers to BESS deployment (such as inconsistent safety practices, unclear technical requirements) and improved project bankability and reduced risks for developers, regulators, and investors. The standards create an enabling foundation for large-scale BESS deployment in line with the country's Power Development Plan VIII.[27]

THEMATIC AREAS

Market and finance

ETP is supporting the revision of Viet Nam's National Green Growth Strategy and Action Plan. Its core contribution is an assessment and review of progress around green financing initiatives, with the aim of generating targeted recommendations for the revised action plan and its implementation roadmap from 2026 onwards. ETP prepared a report on recent shifts in government priorities and institutional structures, which was presented at the National Finance and Economic Forum in December 2025, under the theme of *Shaping Viet Nam in the New Context: Strategic Vision of the Economy and Finance for the 2026–2030 Period*.[28] The analysis emphasizes that the country's green transition should be viewed not as a standalone environmental agenda, but as the organizing framework for Viet Nam's next phase of economic and sustainable development.

ETP is supporting the Viet Nam's Ministry of Finance Department of Finance and Economics to prioritize sustainable energy investments, by enabling the redirection of public and private funds towards major renewable projects. Following the concluding consultation workshop, relevant government stakeholders have completed technical reports and materials to support the internal processes related to the development of a national resolution.[29] The issuance of implementing decisions and guidance documents is expected in 2026. Anticipated for 2026, this evolving policy framework adopts a holistic approach to investment mobilization by integrating green financing, tax incentives and competitive bidding processes over traditional tariff-based models. Upon the Prime Minister's approval of these priority policies, the project will transition into full implementation, overseen by the issuance of a formal government decree and a comprehensive strategic roadmap.

Building on the previous year's momentum, ETP's recommendation for development of carbon tax in Vietnam as an option to response to the EU's Carbon Border Adjustment Mechanism (CBAM) was integrated into Vietnam's Resolution 70[30] on Energy Security as a key strategic solution. The study provided actionable recommendations for a national carbon tax roadmap, designed to strengthen the system while minimizing negative economic implications

Credit: ArtTimes (Vietnam)

THEMATIC AREAS

Knowledge and awareness-raising

ETP led a nationwide multimedia campaign addressing the impacts of climate; engaging diverse groups (including youth, women, ethnic minorities and informal workers), and produced more than 50 articles published across 10 broadcast platforms, 30 broadcast segments and 30 social media posts. These outputs were a significant contribution to the Ministry of Culture, Sports and Tourism's database, which recorded 1,200 energy transition-related articles. ETP's broadcast content achieved more than 2.1 million views. The campaign's success played a role in fostering collaboration among multiple ministries and stakeholders, distinguishing it as one of the first initiatives in Viet Nam to achieve meaningful community engagement on climate and energy transition issues.

26 *This includes terminology, system planning, safety requirements, performance testing, environmental management, and conformity assessment, and are harmonized with the IEC 62933 series.*

27 *Under which 10–16.3 GW of BESS is expected by 2030 and nearly 96 GW by 2050.*

28 *Hanoi Times: " Vietnam urged to reshape economic strategy for 2026-2030 breakthrough"*

29 *Resolution No. 253/2025/QH15 of the National Assembly on mechanisms and policies for national energy development for the 2026–2030 period.*

30 *Resolution N. 70-NQ/TW on ensuring national energy security until 2030, with a vision to 2045*

Regional

19 PROJECTS
- 13 completed
- 6 ongoing

THEMATIC AREA

Expanding and strengthening regional energy transition cooperation

The ASEAN Power Grid represents a crucial regional effort to integrate power systems across Southeast Asia, with the aim to enable cross-border power trade while enhancing energy security and affordability. ETP is delivering key studies, strengthening stakeholder coordination, and building technical capacities, to advance the implementation of regional power trading, particularly from renewable sources. This is carried out through ETP's collaboration with the ASEAN Centre for Energy, CASE for Southeast Asia, and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).

ETP's work on the *Study of the Roadmap for Multilateral Power Trade in ASEAN* was officially endorsed by ASEAN during the Senior Officials Meeting on Energy.[31] The study explores how cross-border electricity trading in ASEAN will potentially evolve based on the existing and planned interconnections.

In 2025 ETP delivered analytical work required for Phase 3 of the ASEAN Interconnection Masterplan Study (AIMS III). Phase 3 of the project forms the basis for multilateral power trade arrangements, covering minimum requirements for multilateral power trading, integrated resource and resilience planning, and grid code harmonization. Phase 3 was completed in 2025 and is set to be endorsed by the ASEAN member states in 2026. ETP also delivered 2 capacity-building activities: one focusing on the available transmission capacity calculation methodology, and the other addressing subsea cables for power interconnection, tackling the unique challenges faced by ASEAN countries.

31 *"Study on the Roadmap for Multilateral Power Trade in ASEAN"*
32 *"ASEAN Interconnection Masterplan Study (AIMS) III Report"*


Credit: Reza Maftazani

What are subsea cables, and how are they important?
Subsea cables transmit high-voltage power through cables laid on or beneath the seabed between areas that are otherwise physically disconnected. For an archipelagic region like Southeast Asia, subsea cables will enable cross-border and cross-island power interconnections. ASEAN countries are starting to explore ways to build a subsea cable infrastructure by defining its technical, legal, commercial and governance aspects. The development of such a subsea cable infrastructure across ASEAN countries will not only realize the APG ambition, but also attract significant investment and enable renewable energy trading.

ETP is currently identifying activities to facilitate pilot multilateral power trade across ASEAN countries. A sub-regional country grouping has been identified that will focus on Viet Nam, Thailand, Malaysia and Singapore. The grouping is based on renewable energy trading potential, particularly offshore wind from Viet Nam via subsea cable.

Southeast Asia has the capacity to unlock 200 GW of renewable energy by 2030, most of which can be achieved through cross-border power trade.[32] ETP aims to expand support for ASEAN's energy cooperation beyond the physical grid by building confidence among countries in implementing multilateral power trade through policy and regulatory capacity building. Significant progress was made this year by establishing the ASEAN School of Regulation, a concept that was


Credit: Emotive Visuals

endorsed by the ASEAN Energy Regulators' Network, and delivered in collaboration with ESCAP and the ASEAN Secretariat. This concept for the school was operationalized through in-depth analytical work, capacity-building via a pilot summer school, and extensive engagement with relevant stakeholder networks. ETP aims to establish a permanent school that serves as the main capacity building platform supporting the needs of ASEAN countries.

Credit: Emotive Visuals

What is the pilot summer school for energy regulators?

ETP and ESCAP, in collaboration with the Energy Commission of Malaysia, the ASEAN Secretariat and the Florence School of Regulation, launched a pilot Summer School for Energy Regulators in ASEAN. The pilot programme is a key milestone in establishing the ASEAN School of Regulation that aims to provide proof of concept for building the capacities of regional energy regulators. This would equip them with the essential skills and knowledge needed to facilitate cross-border power trade under the ASEAN Power Grid initiative, ultimately fostering more sustainable energy systems across the region.

To foster high-level policy innovation and cooperation, ETP launched the Sharing of Perspectives to Advance Regional Knowledge on Energy Transition (SPARK) dialogue this year. This initiative is designed to create a space for peer-to-peer collaboration and learning among Southeast Asian policymakers to accelerate energy sector decarbonization. Convened in Thailand, the inaugural SPARK dialogue brought together government officials from Viet Nam, Indonesia and the Philippines with a focus on advancing carbon pricing and market development.[33] A key outcome was the development of country-specific pathways to strengthen carbon pricing efforts. The discussions have been documented in the form of policy briefs and reports to inform future technical assistance.[34]

Credit: ACE-Partners

THEMATIC AREA

Supporting coal phase-down and decarbonization

ETP's ongoing work in coal phase-down and decarbonization aims to accelerate the shift to renewables by reducing reliance on fossil fuels. These efforts combine coal retirement with essential improvements in energy efficiency to create space for clean energy growth.

ETP's current project to accelerate coal plant retirement focuses on a case-study facility to develop a commercial model for early decommissioning.[35] This experience provided an important lesson on shifting the project's focus from an asset-centric approach to system-level interventions. This shift is reinforced by findings from our assessment of the coal phaseout ecosystem in the Philippines. A key finding was the limited support for retiring older, less efficient coal plants and the need for a holistic coal phaseout framework to guide financing decisions and planning. ETP is collaborating with the Philippines Department of Energy (DOE) to develop a coal phase-out framework that incorporates these initial learnings. The resulting work will also inform public-facing documents ETP is to prepare on coal plant repurposing. Building on this work, the project will develop a guidebook featuring technical analysis and a framework for selecting coal plant repurposing options tailored for the ASEAN context.

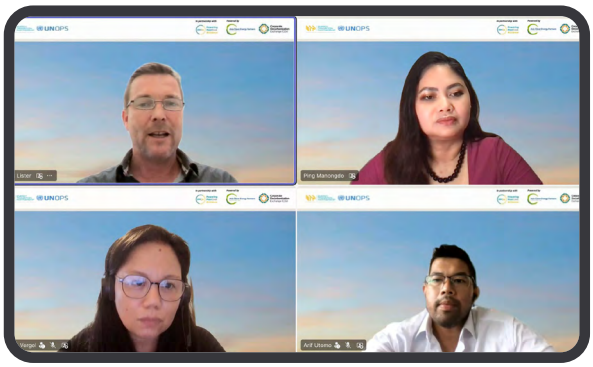
ETP launched a twinning project focused on decarbonization of small and medium enterprises (SMEs) in Indonesia, Viet Nam and the Philippines. The project supports these enterprises in their decarbonization journey through practical knowledge exchange and technology transfer. The technology transfer component involves inviting specialized technology providers and clean suppliers to introduce key innovations to the SME market. The initiative

33 *The second SPARK event is scheduled for January 2026 in the Philippines and will focus on coal phase-down financing.*

34 *"Making Carbon Pricing Work for Southeast Asia's Energy Transition"*

35 *The effort faced constraints when stakeholders raised energy security concerns, which ultimately prevented the plant's retirement from moving forward.*

also addresses the carbon footprint created by SME supply chains, an issue that also affects large corporations. The project timeline includes an in-person event scheduled for 2026, followed by virtual activities and investment dialogues.



The Private Sector Accelerator - Technical Assistance Facility (PSA-TAF) focuses on enabling private sector market entry by providing targeted support, operating distinctly from ETP's higher-level policy work. The facility aims to identify and address specific gaps and risks to private sector investments, delivering targeted technical assistance that enables entry into key transition markets. PSA-TAF currently has 3 projects under development, focused on grid upgrading, utility-scale renewable energy and storage hybrids, and distributed renewable energy. A core operational strategy of the facility is ensuring that all outputs and knowledge products effectively reach the target private sector participants and industry associations.

THEMATIC AREA

Mainstreaming just elements of the transition

With climate commitments becoming increasingly urgent, ETP has proactively established the Just Coal Transition Platform for Southeast Asia to support a just and equitable transition across the region. The platform facilitates peer-to-peer learning and experience exchange, offering insights tailored to local socio-political and economic contexts. To advance this commitment, ETP provides direct, just transition-focused technical assistance, including supporting the Just Energy Transition Partnership Secretariat in Indonesia on economic diversification and transformation within their investment plan, which features a floating solar photovoltaic pilot.

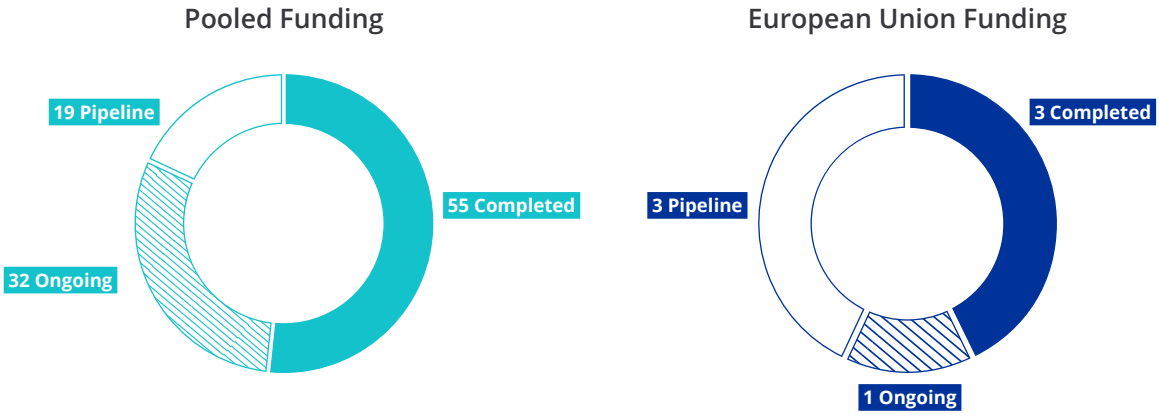
THEMATIC AREA

Enhancing capacity and knowledge sharing across Southeast Asia

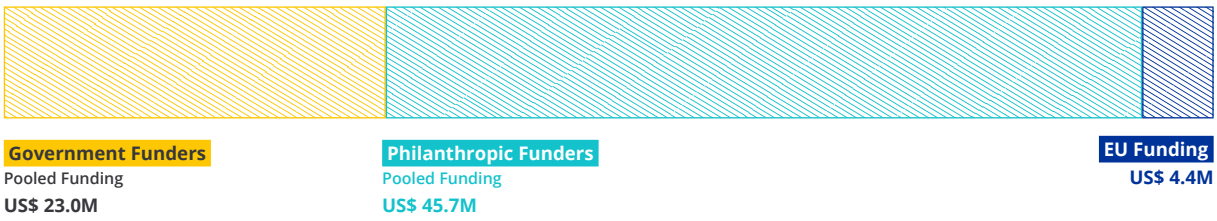
ETP is currently developing a suite of 3 reports to inform energy transition policymaking and broader stakeholder engagement. The first, a stock taking report, assesses the progress of Viet Nam, the Philippines and Indonesia in their energy transition. The second, produced collaboratively with the UN Issue-based Coalition on Climate Action, focuses on coal phase down in Asia and the Pacific, highlighting the economic and just aspects of the transition and analysing coal trends and economic implications in the 3 key Southeast Asian countries. The third report addresses the need to develop the renewable energy workforce, examining skill development programmes, employment policies and opportunities for regional integration, including harmonized certification for renewable energy projects.

Financial Overview

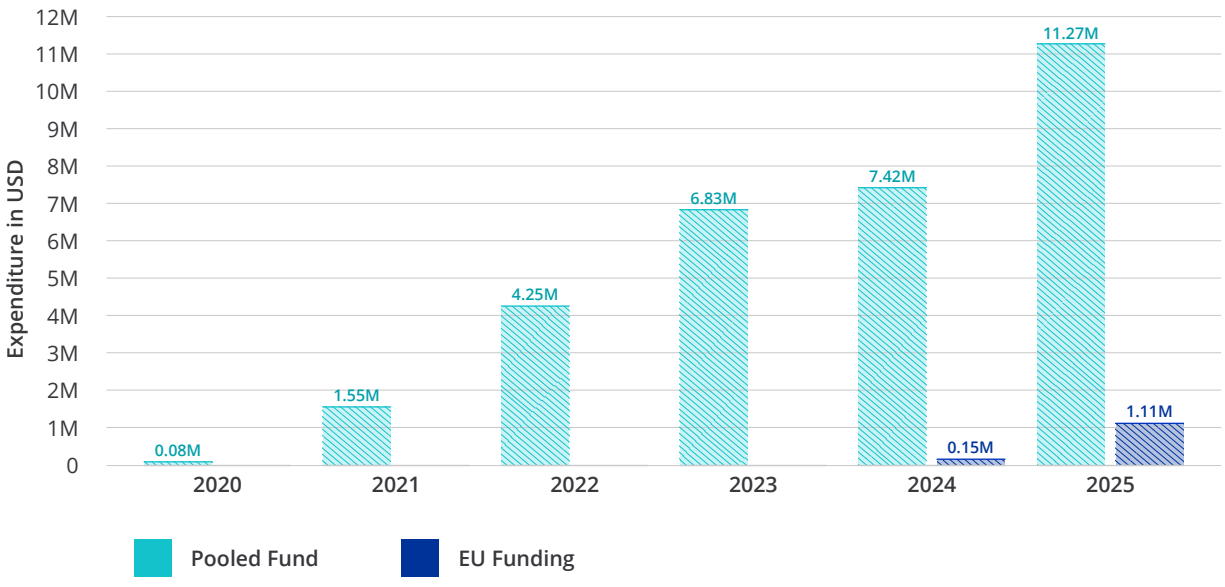
Project portfolio (as of December 2025)



Funding contributions (as of December 2025)



Programme expenditures (as of December 2025)



Outreach

Beyond our core programming, ETP prioritizes participation in regional and global events, effectively bridging the gap between local implementation and international climate discourse.

The designations employed and the presentation of material on this map do not imply the expression of any opinion(s) whatsoever on the part of the United Nations Office for Project Services (UNOPS), the Southeast Asia Energy Transition Partnership (ETP) and its constituents, concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Asian Clean Energy Forum

PHILIPPINES

Credit: Asia Clean Energy Forum

At the 20th Asia Clean Energy Forum in Manila, ETP's senior management team contributed as both moderators and keynote speakers, contributing to discussions on the critical roles of battery energy storage systems and renewable energy integration, bridging gaps between regional policy goals and technical requirements. The forum was an opportunity to exchange innovative financing solutions and strengthen ties with both new and existing counterparts.

Bangkok Climate Action Week

THAILAND

Credit: Southeast Asia Energy Transition Partnership

Participating at the inaugural Bangkok Climate Action Week, ETP presented research forecasting a regional low-carbon energy boom between 2025 and 2030. It emphasized how net-zero policies can drive inclusive growth through workforce development and economic diversification. The team also spoke at a coal-to-clean transition dialogue at Chulalongkorn University, presenting ETP's model of leveraging both government and philanthropic support to deliver complex projects.

Southeast Asia Corporate Decarbonization Exchange Summit

THAILAND


Credit: Southeast Asia Corporate Decarbonization Exchange

In a parallel session during Bangkok Climate Action Week, ETP participated in the Southeast Asia Corporate Decarbonization Exchange Summit. Represented by its senior leadership and programme team, ETP contributed to high-level discussions on the region's progress toward a just transition. This emphasized the role of corporate alignment in achieving Southeast Asia's decarbonization goals.

Clean Energy Ministerial

SOUTH KOREA

ETP focused on the transition from high-level global commitments to tangible, on-the-ground implementation. ETP engaged directly with funders and key partners, allowing for strengthened cooperation and the alignment of upcoming activities for the next phase of the partnership's strategic cycle. These discussions ensured that ETP's regional interventions remain synchronized with global clean energy standards and funding priorities.

ASEAN Energy Business Forum

MALAYSIA

ETP participated as a panellist for an exclusive, closed-door session on coal phasedown pathways. The discussion brought together key government officials and leading financial institutions to explore actionable transition strategies.

Acknowledgements

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Our diverse network of governments, philanthropies and technical experts has been instrumental in advancing policy discussions, delivering essential technical assistance, and building the strategic partnerships necessary for a just energy transition. It is through their collective dedication and collaborative spirit that ETP can drive systemic change and power a sustainable future for Southeast Asia.

Abbreviations

AIMS III	ASEAN Interconnection Masterplan Study (Phase 3)
APG	ASEAN Power Grid
ASEAN	Association of Southeast Asian Nations
BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BESS	Battery Energy Storage Systems
CASE	Clean, Affordable and Secure Energy for Southeast Asia
CBAM	Carbon Border Adjustment Mechanism
CIPP	Comprehensive Investment and Policy Plan
DOE	Department of Energy (Philippines)
ERC	Energy Regulatory Commission (Philippines)
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
ESCO	Energy Service Company
ETS	Emissions Trading System
ETP	Southeast Asia Energy Transition Partnership
EU	European Union
GW	Gigawatt
JAMALI	Jawa-Madura-Bali (Control Center)
JETP	Just Energy Transition Partnership
MEMR	Ministry of Energy and Mineral Resources (Indonesia)
MW	Megawatt
PLN	Perusahaan Listrik Negara (Indonesia's State Electricity Company)
PPP	Public-Private Partnership
PPSDM-KEBTKE	Centre for Human Resources Development in Electrical Power, New and Renewable Energy, and Energy Conservation (Indonesia)
PSA-TAF	Private Sector Accelerator - Technical Assistance Facility
SME	Small and Medium Enterprise
SPARK	Sharing Perspectives to Advance Regional Knowledge
UNOPS	United Nations Office for Project Services
VREM	Voluntary Renewable Energy Market

ENERGY TRANSITION PARTNERSHIP

UNOPS

southeast-asia-energy-transition-partnership

The **Southeast Asia Energy Transition Partnership** is a programme of the United Nations Office for Project Services.

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AFD Agence Française de Développement
Federal Ministry for Economic Affairs and Climate Action
Department for Energy Security & Net Zero
Environment and Climate Change Canada
Environnement et Changement climatique Canada
Australian Government
Department of Climate Change, Energy, the Environment and Water
CIFF Children's Investment Fund Foundation
Sequoia Climate Foundation