

CORPORATE QUALIFICATIONS



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Who We Are

Asia Clean Energy Partners Limited (ACE Partners) is an international firm that provides consulting and advisory services related to the energy sector with an emphasis on understanding markets, developing networks of expertise and knowledge; and evaluating and designing clean energy initiatives and programs. ACE Partners has its primary office in Bangkok, Thailand, allowing it to provide regional coverage with expert consultants and advisors across Southeast and South Asia and the Pacific. The firm helps clients accelerate clean energy deployment to achieve greater speed and scale.



The Needs We Serve

Governments, businesses, and regional organizations increasingly recognize the need to scale up efforts to transform the energy system, taking into account new advances in technologies and business models, the need to increase investments in renewable energy and energy efficiency, and the development and implementation of net-zero strategies. However, they do not always have the in-house capacity or expertise to design, socialize, and implement their initiatives. ACE Partners has been established to fill this gap. We support the design and execution of effective clean energy initiatives, with a focus on four main areas:

- a) creating insights through research and analytics;
- b) designing and executing projects and initiatives;
- c) connecting stakeholders with the knowledge, technology, and finance to achieve results; and
- d) **building knowledge and action platforms** that facilitate networking, connections, and impact.





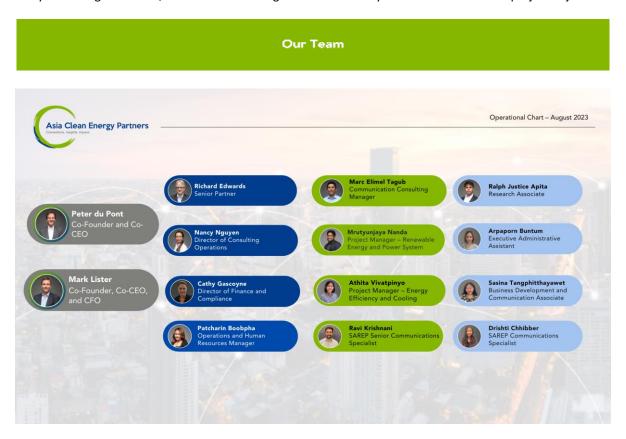
The partners who lead ACE Partners have decades of implementation experience, backed by extensive expertise on clean energy financing, business development and climate finance in the Asia-Pacific region, working with a cross-section of stakeholders- policymakers, experts and thought leaders, private sector investors and businesses, and civil society organizations.

Our team offers a verifiable track record of delivering excellent results and tangible impacts for our clients.

Our expertise includes:

- deployment of national and regional programs in climate and clean energy finance and market development
- design, implementation, and evaluation of intelligent, effective, and resilient clean energy strategies
- regional communications leadership and support
- regional program coordination and building communities of practice

Our key strengths include (a) **first-hand insights** into the clean energy ecosystems and institutions operating in Asian markets; (b) **deep understanding of the opportunities** of the future energy system; (c) **expertise and connections** to enable organizations to make their desired transition. The company has wide and deep networks in key Asian target markets, which can be leveraged as local delivery teams towards diverse project objectives.



Technology and Markets

Project title: GCPF Green lending support Cambodia

Dates: October 2022 – October 2023

Clients/Partners: Global Climate Partnership Fund (GCPF)

Countries: Cambodia

Project description:

This assignment aims to conduct an in-depth market assessment to scope out the highest potential for energy efficiency and renewable energy in the agriculture and SME sectors and to identify relevant technology providers/ distributors that show an interest in partnering with the financial institution to establish a lean data sharing process to enable joint promotion and tracking of equipment.

Asia Clean Energy Partners' (ACE Partners) role is to support the financial institution in Cambodia in defining a clear action plan to guide them in tapping this market potential and to support the bank in implementing this action plan, which is expected to include support on product development and testing, staff capacity building while operationalizing working relationships with vendors and provide promotional support.

Deliverables under this activity will include:

- Market potential assessment and ecosystem mapping and evaluation, which will include a list of potentially eligible energy efficiency and renewable energy technologies of interest to the target clients, current technology providers, financing schemes available in the market for farmers and SMEs, as well as the organization of a workshop to present findings to the GCPF, investment manager, and financial institution management.
- Product development and roll-out support, which will include product support documentation, a product pilot report, training materials, and progress reports, including a final report and supporting materials to be used in the final workshop session.

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Project title: Good Practices for LGU Energy Efficiency and Small Renewables in the Philippines

Dates: August 2022 – September 2023
Clients/Partners: Asian Development Bank (ADB)

Countries: Philippines

Project description:

This assignment aims to develop a compendium of good practices and practical guidance that local government units (LGUs) in the Philippines can use to implement energy efficiency (EE) and small renewable energy (RE) initiatives effectively. The reference book will focus on small renewable energy to power LGU's energy consumption and energy efficiency on LGU's owned infrastructure. The development of the reference book shall be in coordination with the DOE EUMB (Energy Utilization Management Bureau) and REMB (Renewable Energy Management Bureau).

The Asian Development Bank (ADB) has engaged ACE Partners- together with the Danish Management Group to lead the development of the reference book. ACE Partners' contributions include:

- Identifying key priorities, barriers, and overall goals of LGUs:
- Determining and mapping the spheres of the LGU's influence on EE/RE opportunities
- Reviewing of RE and EE technologies and applications
- Preparing case studies and providing recommendations on financing options, good practices and practical guidance for LGUs to implement EE and small RE initiatives

Project title: Private Financing Advisory Network (PFAN)

Dates: October 2018 – December 2023

Clients/Partners: United Nations Industrial Development Organization

Countries: 12 countries in South and Southeast Asia

Project description:

The Private Financing Advisory Network (PFAN), hosted jointly by the United Nations Industrial Development Organization (UNIDO) and the Renewable Energy and Energy Efficiency Partnership (REEEP), is a global network of clean energy financing experts that provide free mentoring to project developers and link them to investors. Since its inception in 2006, PFAN has helped raise \$3 billion for clean energy and climate change projects globally.

ACE Partners serves as the Southeast Asia Regional Coordinator overseeing work in eight countries--Cambodia, Indonesia, Malaysia, Laos, Myanmar, Philippines, Thailand, and Vietnam, and provides support for the overall Asia implementation team, which includes four countries in South Asia—namely Bangladesh, India, Nepal, and Sri Lanka. ACE Partners' services for PFAN include:

- Project origination and project coaching: ACE Partners helps build a strong pipeline through extensive outreach across Asia and engagements with key stakeholders including national and state government agencies, energy and business associations, project developers, and others. As of May 2023, PFAN Asia has a pipeline of 167 projects, with 104 of those currently being coached.
- Investment facilitation and deal closure: ACE Partners helps lead PFAN's efforts to reach out to investors, banks, and financial institutions across the Asia region, to understand investor appetite and investment requirements, then match PFAN projects to suitable investors. In 2022, PFAN Asia helped 24 projects raise a total investment of \$733 million.
- Capacity building of project developers: While project developers are passionate about technology, they often lack skills in packaging and presenting their case to investors. ACE Partners leads the network of PFAN Advisors that provide mentoring and business coaching to selected PFAN projects. These Advisors assist in building the capacity of project developers and help them make their projects more attractive to investors.

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Project title: ESCO Market Assessment

Dates: October 2022 – July 2023

Clients/Partners: EP Group Limited
Countries: Philippines

Project description:

EP Group Limited has engaged ACE Partners to conduct market research on the ESCO (Energy Service Company) market and services in the Philippines. Additionally, ACE Partners will assist EP Group in the development of a marketing and communication plan for the ESCO-in-a-Box project which is set to be implemented in the Philippines.

ACE Partners undertook the following tasks:

- Determine the size of the addressable markets for Partner ESCOS in the Philippines, including a potential market size figure, in USD, including a breakdown of key industries and their energy intensity, investigations into energy price savings and the SME sector composition, to inform the strategy for the Super-ESCO.
- Identify and prioritize 2-5 market segments with the greatest potential for an EIAB based proposition in the Philippines, considering national policies, legislation, energy prices, the existing client bases of prospective Partner ESCOs, and the technology and finance solutions that will best serve each segment.

Project title: Enabling Access to Off-grid Renewable Energy in Magway, Myanmar

Dates: October 2021 – December 2022

Clients/Partners: United Nations Development Programme (UNDP)

Countries: Myanmar

Project description:

The United Nations Development Programme (UNDP) initiated a Technical Assistance (TA) on Energy under the Environmental Goods and Services (EGS) component of the Governance for Resilience and Sustainability Project (GRSP)—a UNDP initiative to develop the private sector by addressing the market-creating challenges of EGS and green business, as well as the emerging and compounding risks associated with the 1 February military take-over of the civilian government and the COVID 19 pandemic. The TA on Energy aims to improve access to clean and affordable energy to selected villages in Magway Region, Myanmar. The TA's main output is to provide clean electricity to 200–300 households.

ACE Partners—together with its partner, Myanmar Eco Solutions—designed and implemented the following activities:

- Identification, assessment, and validation of four pilot villages and up to eight beneficiary groups
- Reviewed and fine-tuned the Impact/Business model
- Development of a procurement plan for the purchase of technology solutions (a combined quantity of 500 RE/EE technology solutions. It is expected that ~60%-70% of the solutions (300-350 pieces) will be solar home systems (SHS) and ~30%-40% of the solutions (150-200 pieces) will be improved cookstoves (ICS).
- Designed and structured a series of adaptive capacity development training sessions (bilingual) and tailored coaching sessions, including topics on enterprise skills development and financial literacy.
- Phased-roll out of technology solutions, adaptive mentoring, and enterprise skills coaching

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Project title: Clean Energy Project Assessments

Dates: November 2021 – December 2023

Clients/Partners: United States Trade and Development Agency (USTDA)

Country: Subregional/ Multi-country

Project description:

The U.S. Trade and Development Agency (USTDA) is a foreign assistance agency that delivers its program commitments through grants and contracts. USTDA requires services to support its decision-making relative to the funding of activities to support Energy Opportunities in Asia and the Pacific.

ACE Partners—together with its partner, Emerging Market Group, provided preliminary project assessments for ten project reports and recommends ten activities for USTDA funding consideration of feasibility studies, technical assistance activities, and /or pilot projects in the energy sector (including solar, wind, geothermal, biomass, hydropower, waste-to-energy, biofuels, electricity transmission and distribution, smart grid, distributed energy resources, energy efficiency, energy storage, carbon capture, hydrogen, electric vehicles, ocean thermal, small modular reactors, nickel processing for battery storage, and traditional energy and power projects).

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Project title: Finance Mapping Southeast Asia (for the Clean Affordable Secure Energy for

Southeast Asia (CASE) Programme)

Dates: November 2021 – February 2022

Clients/Partners: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Countries: Indonesia, Philippines, Thailand, Vietnam

Project description:

The objective of the assignment is to support the CASE regional team to systematically map and capture key data and information on the finance and investment environment related to the energy transition in the four CASE countries—Indonesia, Philippines, Thailand, and Vietnam. This will include data and information on current and past investment flows, sources of finance, costs of different technologies, and other relevant aspects comprising both domestic as well as international financial activities and flows.

ACE Partners supported the CASE regional team on the following tasks:

- Creating a framework to scope, map, and gather relevant data and information regarding the finance and investment landscape in the energy sector.
- Collecting data and information from the four partner countries, which are Indonesia, Philippines, Thailand, and Vietnam.
- Synthesizing the collected data and information into a format that is easily accessible and can be updated
 as needed.

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Project title: Green Finance and ESG Solutions Assessment for the Manufacturing Sector in

Cambodia, Thailand, and Vietnam

Dates: November 2021 – February 2022

Clients/Partners: Institute for Sustainable Communities (ISC)

Country: Cambodia, Thailand, and Viet Nam

Project description:

The Institute for Sustainable Communities (ISC) has been awarded a new 3-year USAID-funded alliance, the Mekong Sustainability Manufacturing Alliance (MSMA), which aims to enhance the lower Mekong region as a sustainable manufacturing hub. The program targets factories in the food processing, electronics, and textiles sectors in Cambodia, Thailand, and Vietnam, with country-specific and region-wide activities. The MSMA emphasizes the business advantages of implementing sustainable manufacturing practices. ISC contracted ACE Partners to conduct a landscape assessment in Thailand, Vietnam, and Cambodia of the financing opportunities available for the manufacturing sector to advance environmental, social and governance (ESG) performance. This includes a parallel assessment of locally appropriate solutions to improve factory ESG performance. This will allow ISC and MSMA stakeholders to understand the ESG context, priorities, and financing needs of manufacturers in each of the target countries, potential solutions for improving ESG performance, and the barriers that factory owners face to further action.

ACE Partners performed the following tasks for each country:

- Examining the manufacturing sector's status in relation to ESG benchmarks to identify issues for the MSMA program to address;
- Analyzing financing needs for ESG initiatives and identifying barriers to securing finance;
- Documenting existing green finance initiatives to identify partnership opportunities and expand financing for ESG best practices in the manufacturing sector;
- Creating a materiality assessment for each industry to understand potential solutions' impact on ESG improvement;
- Identifying potential ESG solutions and their benefits, including business value, brand value, and ESG effectiveness;
- Documenting the existing solution landscape, technical and government partners, and rollout considerations;
- Creating an overall solution feasibility assessment that links the financial landscape with the solution landscape to determine the suitability of the solutions for MSMA participants and provide a pathway to finance the recommended solutions.

Project title: Development of a "Primer on Zero Carbon Buildings"

Dates: June 2021 – December 2021

Clients/Partners: World Bank Energy Sector Management Assistance Program (ESMAP)

Country: Global

Project description:

The objective of the assignment was to produce a primer on Zero Carbon Buildings (ZCBs) that provided the World Bank Group (WBG), its clients (low- and middle-income countries), and other stakeholders with insights and recommendations on how to shift towards ZCBs in WBG and client government projects and programs. The assignment also included a presentation of the insights and recommendations to the WBG and client audiences.

ACE Partners collaborated with DEM and WRI experts to complete the following tasks:

- Conducted a comprehensive desk review of literature, policies, regulations, and strategies related to zerocarbon buildings in various countries, including ZCB design elements, certification schemes, and relevant initiatives.
- Summarized the key barriers to ZCB implementation and developed policy recommendations to overcome them for both new construction and retrofitting of existing buildings.
- Developed technical assistance and investment program recommendations for ZCB implementation, covering policy and regulation, capacity building, awareness-raising, and procurement approaches.
- Conducted a cost-benefit analysis of ZCBs, including passive and active design elements, renewable energy, and carbon offset measures for different building types.
- Compiled five case studies on single-family, multifamily, office, school, and hospital buildings, detailing
 energy efficiency levels, renewable energy generation, investment costs, energy costs, payback periods for
 retrofitting, and lessons learned.

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Project title: Green and Innovative Finance Initiative for Scaling Up Southeast Asian

Infrastructure

Dates: March – November 2021
Clients/Partners: Asian Development Bank

Country: Thailand

Project description:

This project aims to help the National Housing Authority (NHA) of Thailand develop and issue Green Bonds to help finance the future development of its housing. NHA is a state-owned enterprise with a mandate to develop affordable housing for low-income households in the country. In recent years, NHA has been focused on integrating sustainable urban housing concepts and approaches into their assets including energy efficiency measures, eco-housing concepts, and aligning themselves with national energy efficiency labels such as EGAT's Label No. 5 efficient housing.

ACE Partners led an ADB Consulting Team to help review NHA's existing asset base to determine eligibility as green assets. Based on a review of NHA's expansion plans, and construction design, the ADB Consulting Team will identify measures that NHA may incorporate in their near-to-medium term expansion plans to construct additional green assets, financed through issuances of Green Bonds. The role of ACE Partners was to:

- Carry out an assessment of regulatory issues as it pertains to energy efficiency measures in residential buildings in Thailand;
- Review green buildings eligibility criteria as stipulated by ASEAN green bond standard, ICMA green bonds standard, and the Climate Bonds Initiative.
- Integrate the inputs of the senior energy efficiency in buildings expert (technical); and
- Present the findings to relevant counterparts in dissemination workshops
- Develop a knowledge product on thematic bonds for sustainable housing in Thailand

Project title: Energy System Analysis, Technology Road Maps and Feasibility Studies for Pilot

Testing

Dates: February 2020 – March 2021
Clients/Partners: Asian Development Bank (ADB)

Country: Uzbekistan

Project description:

This assignment is part of the ADB's technical assistance to the Uzbekistan Government in its effort to establish Special Economic Zones as a strategic initiative to promote industrialization for high-value-added products and job creation in Uzbekistan.

ACE Partners led a team of three specialists to conduct a market survey to identify potential international investors and assess the readiness of the basic infrastructure for the deployment of solar PV, waste-to-energy as part of decentralized and smart energy systems in the Eco-Industrial Parks. The final report prepared by ACE Partners includes recommendations on (i) suitable industries (manufacturing, energy) to be located in the Eco-Industrial Parks; (ii) needed infrastructure (energy, road, water) and cost estimates; (iii) social-environmental impact safeguards measures; (iv) institutional arrangements for the management of Eco-Industrial Parks; (v) Terms of Reference for a more comprehensive Feasibility Study on selected sites.



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