RENEWABLE ENERGY MARKETS ASIA 2024 PANEL DISCUSSION

LOCAL RENEWABLE ENERGY OPTION DESIGN AND UTILITY ENGAGEMENT

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Tuesday, 30 April 1:30–2:30 PM

Renewable Energy Markets™ Asia 2024

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REM Asia 2024

Sam Valderrama

30 April 2024

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Philippine Energy Market and the Role of Utilities

- Liberalized, privatized power sector with **152 distribution utilities**
  - Includes **121 electric cooperatives** - Non-profit utilities that serve rural and remote communities across the Philippines
- One of the **highest** electricity rates in Asia
- Power sector - 58% of the country's emissions
- Lack of renewable energy (RE) supply to meet growing demand
  - Electricity demand is projected to increase by **6.6%** annually thru **2040**
  - Government target - **50%** RE in the energy mix by **2040**
- RE sector now fully open to foreign ownership

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Philippine Energy Transition Policies and Programs

- **National Target** - 35% RE in the energy mix by 2030 (and 50% by 2040)
- **Renewable Portfolio Standards** - All utilities are **mandated** to increase their RE use each year (1% increase per year in 2020-2022 and 2.52% increase per year starting in 2023)
- New **Philippine RE Market (PREM)** as the REC platform for utilities
- **Retail Competition and Open Access (RCOA)** for voluntary RE procurement
- New **Green Energy Option Program (GEOP)** for voluntary RE procurement

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Philippine Energy Transition Policies and Programs

- **Green Energy Auction Program (GEAP)** for utility-scale RE installations
- **Preferential Dispatch to Renewable Energy Generation Plants**
- Emerging **Policy and National Framework for the Expanded Rooftop Solar Program (ERSP)**

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Benefits of Voluntary RE Procurement Mechanisms like RCOA and GEOP

SUPPLIERS

- Can **connect** with buyers and offer a supply portfolio that satisfies buyers' full energy requirements
- May enjoy zero-rated VAT generation charge
- RE is incentivized and opens new business opportunities

BUYERS

- Can utilize **customized** approach to meet energy needs
- Can exercise the power of **choice** in selecting an RE Supplier that satisfies their energy and sustainability goals
- Can access more **affordable** electricity and **sustainable** sources of energy

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Renewable Portfolio Standards and the Challenges Facing Electric Cooperatives

Barriers identifying project development resources

- Developing and permitting costs are often not included in EC budgets
- Permitting processes can be unfamiliar and time-consuming

Barriers connecting with financing for RE projects

- ECs often lack connections to debt capital providers to support RE projects
- Many ECs do not have the resources to make direct equity investments

Perceived project risks and concerns about non-core business

- ECs typically focus on distribution infrastructure
- ECs often have limited experience managing RE generation projects and need support to move forward on new RE projects.

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Local Utility Project Accelerator (LUPA)

KAPULUAN RENEWABLES allotrope PARTNERS

LUPA is a blended finance initiative that supports electric cooperatives (ECs) in the Philippines to develop, implement, and commercialize renewable energy (RE) projects.

Progress to Date

- *2020-2021:* Feasibility study to assess gaps ECs face.
- *2022-2024:* Proof of concept to implement initial EC RE projects.
- *Today*: Growing pipeline of 15+ partner ECs and 150+ MW of potential RE projects.

Allotrope Partners designed and incubated LUPA from 2020 to present.

Kapuluan Renewables is the operating entity for the commercialization of LUPA projects.

LUPA **equips ECs** with the **development and financing resources** they need to achieve their RE transition targets.

Building Connections

LUPA fills a gap in the market by bringing together:

- Partner ECs
- Local banks/capital providers
- RE developers/investors
- Legal, regulatory, and other resource partners

Unlocking Benefits

LUPA supports ECs to:

- Secure overall cost savings
- Meet and exceed RPS targets
- Reduce perceived risks and transaction costs
- Expand access to clean, reliable, affordable energy for the local communities they serve

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CLIMATE GROUP

GWEC
GLOBAL WIND ENERGY COUNCIL

WORLD RESOURCES INSTITUTE

Asia Clean Energy Coalition

Driving corporate renewable electricity procurement in Asia

April 30th, 2024

About the Asia Clean Energy Coalition

ACEC was launched in 2022 at the B20 and COP27 by Climate Group, the Global Wind Energy Council and the World Resource Institute to convene a coalition of world-leading renewable energy buyers, in collaboration with sellers and financiers, to strategically shift policy in key Asia-markets.

Decarbonization/Industry Day
COP27 in Sharm el-Sheikh, Egypt
11 November 2022

Business 20 Side Event
B20 Summit in Bali, Indonesi
11 November 2022

Private Sector-driven coalition of influential renewable energy buyers

Unified corporate voice that drives market reforms and industry transformation

Tracking and monitoring the policy and regulatory ecosystems

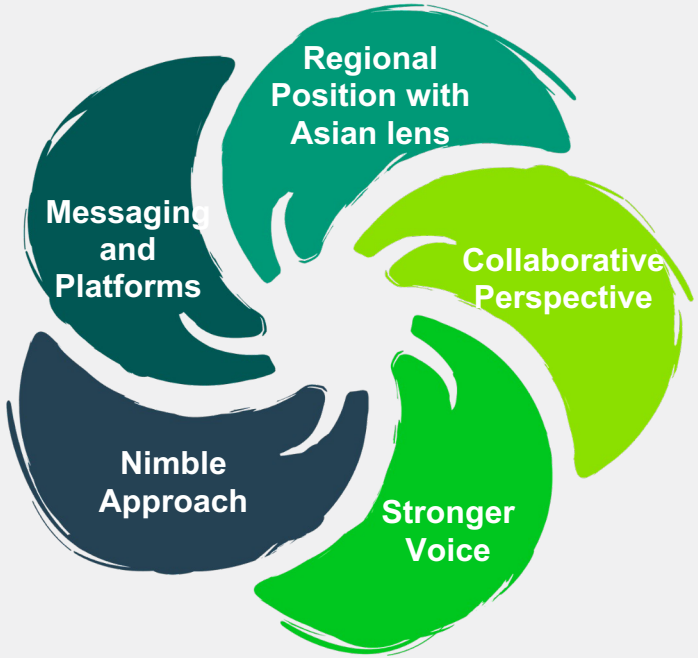
Promote clean energy investments to help advance energy security and a just energy transition

Steering Group Members

as of April 2024

ACEC Strengths

By 2030, Clean energy in Asia's markets is accessible, affordable and accountable at scale, with effective procurement frameworks, regulation and investment. Companies are meeting their clean energy demands and countries are meeting their clean energy goals



Regional Position	ACEC's position at the regional level serves as a strength for cross-country advocacy, learning and collaboration
Collaborative Perspective	ACEC's ability to bring the developer/supply side perspective adds a unique voice to the conversation
Stronger Voice	ACEC can take a stronger and more aggressive stance for specific policy advocacy effort, given its governance and membership structure
Nimble Approaches	ACEC's agility allows for nimble and flexible policy responses in priority countries on an ad-hoc basis
Messaging and Platforms	Elevating existing messaging into new platforms and networks enhances the reach and impact of ACEC's work

Driving Towards Global Sustainability with Corporate Commitment on Clean Energy

Corporate participation helps harmonize policies and supports cross-border energy transactions, especially critical in the ASEAN context where energy needs and resources vary.

➔ Vital for advancing towards Sustainable Development Goals (SDGs), especially in international energy cooperation, sustainable energy access and renewable use.

Importance of Renewable Energy Tracking

ACEC advocates for regulatory alignment and mutual recognition of energy certificates and the establishment of a consistent, reliable system for tracking and trading renewable energy

- → **Access to cost-effective clean energy is crucial for business decisions.**
- → **Direct access to renewable sources like PPAs and green tariffs offers a competitive edge, attracting investments.**
- → **Corporate offtake requires tracking systems to make credible claims - both in market and across markets.**
- → **Tracking systems are vital for validating renewable energy use and supporting corporate sustainability objectives. However, the landscape varies across countries:**

  Ex. Japan utilizes primarily NFCs, as well as GEC and the J-Credit system for tracking energy savings and renewable generation.

  Korea has established the K-REC systems to monitor renewable energy consumption and production.

Diverse Procurement Options for Renewable Energy

ACEC advocates for a broad range of procurement options in order to allow for increased access to clean energy supply. These can include PPAs as well as simpler green utility tariff programs.

Examples of Renewable Energy Procurement Options

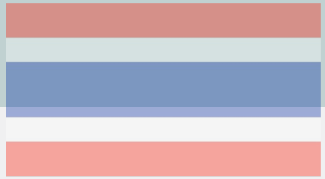
Types	Description
On-Site Installation (Self-generation)	Install RE generation facilities for own consumption
Off-Site Installation (Equity Investment)	Invest a certain stake in the RE generation and enter a Third-party PPA or REC contract with the developer
Renewable Energy Certificate	proof that electricity has been generated from renewable energy sources.
Power Purchase Agreement	allow companies to purchase electricity directly from renewable energy producers, usually at a fixed price over a long-term period
Green Tariff	programs allowing companies to buy renewable energy from their utility provider by paying extra on the top of their electricity bill.

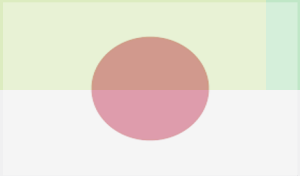
Challenges and Opportunities in Renewable Energy Procurement

In Korea and Japan, despite supportive regulations, there are significant challenges related to the affordability of PPAs, limitations in grid capacity, and complex permitting and siting processes.

Singapore encounters high PPA prices, driven by its limited geographical space and the resultant scarcity of local renewable resources.

In markets with integrated utilities like Thailand, utility green tariffs offer a direct and effective procurement method, simplifying access to renewable energy for companies.





Need for Urging Government and Stakeholder Actions

- Governments are urged to facilitate renewable energy procurement by creating supportive laws and easing regulations.
- Need greater clarity on the interaction between RPS obligations and corporate procurement—aiming for complementary rather than competing frameworks.
- Multi-stakeholder dialogues between the government, buyers, developers and financiers are essential to promote renewable energy sector development.
- Government action to expand procurement options, supported by clear policies, can significantly impact national sustainability achievements.

Asia
Clean Energy
Coalition

The Asia Clean Energy Coalition is committed to leading the conversation on renewable energy adoption, policy innovation, and cross-border energy trading. By aligning with global sustainability goals and advocating for regional policy harmonization, ACEC plays a pivotal role in shaping a sustainable energy future for Asia.

Asia Clean Energy Coalition

Thank you

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