Regulatory Barriers to Corporate Clean Energy Procurement in Southeast Asia

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About the USAID Southeast Asia Smart Power Program (SPP)

SPP aims to enhance energy security in Southeast Asia by creating open and transparent energy markets, promoting energy trade, and transforming the energy sector to improve access to clean, reliable, affordable energy.

**Targets**

The life of program targets SPP is driving to achieve include:

- 2,000 MW of advanced energy systems deployed
- $2 Billion finance mobilized
- 5% Increase in regional energy trade

**Strategy**

SPP will focus on achieving the following technical and policy objectives:

- **Objective 1:** Utility Modernization & Power Trading
- **Objective 2:** Increased Deployment of Advanced Energy Systems
- **Objective 3:** Clean and Sustainable Energy

In May 12-13, 2022, U.S.-ASEAN Special Summit in Washington, D.C. re-affirmed U.S. support across ASEAN’s institutions and programs.

**Regional Partners**

- ASEAN Centre for Energy
- HAPUA

**USG and International Donor Partners**

- USG
- International Donor Partners
The Competitive Procurement Center (CPC) is a regional one-stop-shop for best practices and technical assistance on procurement of products and services relating to the energy transition.

CPC resources and services are developed based on market needs and include:

- Guidelines, Leading Practices, and Case Studies
- Template documents
- Tailored technical assistance and advisory services (e.g. procurement planning, evaluation criteria, and technical standards).

**What is Competitive Procurement?**

A procurement mechanism which involves a buyer issuing a tender for goods or services and comparing bids from multiple vendors before a winner. The benefits of competitive procurement include price efficiency, quality control, transparency and fairness.
Most SEA countries have a **single buyer model which restricts businesses to purchase electricity only from national utility providers**, limiting their access to renewable energy options. While the Philippines allows for some direct procurement, there are minimum volume requirements which pose challenges for small and medium enterprises.
## Current regulation limits direct procurement options

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Type</th>
<th>Market Policy</th>
<th>Direct Enabling Policy</th>
<th>Corporate Power Purchase Agreements (CPPAs) Currently Exist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>Vertically Integrated</td>
<td>• IPPS allowed&lt;br&gt;• Some customer classes can purchase directly from IPPs. Industrial estates with separate grid supplied onsite are allowed.&lt;br&gt;• No wheeling through the state utility’s transmission or distribution infrastructure.</td>
<td>• Energy Regulatory Commission (ERC) Sandbox&lt;br&gt;• Utility Green Tariff soon</td>
<td>Onsite/dedicated line only</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Vertically Integrated</td>
<td>• IPPS allowed, but no policy for direct purchase from IPPs</td>
<td>None</td>
<td>Yes; outside of National Electric Company (Indonesia) (PLN) territory</td>
</tr>
<tr>
<td>Philippines</td>
<td>Restructured Market</td>
<td>• Retail Competition and Open Access (RCOA) and Green Energy Option Program (GEOP) allows customers with certain minimum demand to select their Energy Supplier</td>
<td>RCOA and GEOP</td>
<td>Yes</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Transitioning from Vertically Integrated to Restructured Market</td>
<td>• IPPS allowed, but no policy for direct purchase from IPPs&lt;br&gt;• Specific regulations are in progress to allow CPPAs.</td>
<td>Direct Power Purchase Agreement (DPPA) Program pending</td>
<td>Onsite rooftop allowed</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Vertically Integrated</td>
<td>• IPPS allowed, but no policy for direct purchase from IPPs</td>
<td>None</td>
<td>Yes, but unclear how existing CPPAs were initiated, given market conditions do not openly allow CPPAs</td>
</tr>
<tr>
<td>Lao</td>
<td>Vertically Integrated</td>
<td>Market regulations allow IPPs, but do not speak to customer ability to purchase from IPPs.</td>
<td>None</td>
<td>No</td>
</tr>
</tbody>
</table>
Thailand’s Utility Green Tariff (UGT) will allow purchase of green electricity, with utilities as intermediary.

EGAT is the I-REC issuer – potential conflict of interest.

**UGT1:**
- Premium: 0.0594 THB (0.16 US cents)/kWh
- Lock-in: 1 year

**UGT2:**
- Premium: 4.55 THB (13 US cents)/kWh
- Lock-in: 10 years
Malaysia: TNB Green Electricity Tariff

- **TNB’s Green Electricity Tariff (GET)** is an annual quota. 2024 quota = 6,600 GWh.
- **Generation**: solar and hydro.
- Premium: 10 sen (2 US cents)/kWh for residential, 20 sen (4 US cents)/kWh for non-residential.
- Lock-in period: through December 31 of each year, with 1-year automatic renewal. Option to backdate through January 1.

Source: Tenaga Nasional Berhad (TNB) 2024
Vietnam: Direct Power Purchase Agreement Mechanism (not finalized)

- Latest version as of April 15, 2024: released for public consultation.
- Two options:
  - **Direct private wire PPA**
  - **Sleeved PPA**: all transactions happen via wholesale market
- Minimum generator size = 10MW
- User minimum = 500,000 kWh/month consumption by signee of contract
- Generation: wind and solar

Source: Deloitte
Key Takeaways

Expand green procurement options

Current regulatory frameworks tend to limit green procurement to onsite PPAs and unbundled RECs
- Onsite: limited capacity, unable to meet 100% of energy demand
- Unbundled RECs: potentially seen as greenwashing

Release intermediary bottleneck

Utility as the middleman is unnecessary
- Demand driven by large corporate customers who can negotiate their own DPPAs
- DPPAs can yield lower prices, more transparent REC delivery

Regulatory catchup

Regulation needs to catch up to the market
- Inevitable trend is for direct sale via the grid
- SEA needs to scale up RE a lot faster to meet NDCs
- State-owned incumbents need to adapt rather than create a bottleneck for RE deployment
Thank You!

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