

# Chapter 2

## Benefit of ASEAN Power Grid

**This chapter should be cited as**

Study team (2019), 'Benefit of ASEAN Power Grid', in Tokyo Electric Power Company Holdings (eds.), *Study on the Formation of the ASEAN Power Grid Generation and Transmission System Planning Institution*. ERIA Research Project Report FY2018 No. 25, Jakarta: ERIA, pp.6-26.

## Chapter 2

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#### 1. Mission of each institution

Below is the mission of each institution according to each website. And considering their mission and current situation of ASEAN, one draft for the mission of APP is suggested. This should be discussed deeply from now on.

Some common points are found in the current mission of OCCTO, ENTSO-E and SAPP. Then Security and Economy are key factors. And Sustainability is also one of them. Then according to the current situation of ASEAN, Electrification could be one important factor to be achieved. These 4 points are chosen for the draft missions.

**Figure 1: Overview of the Missions of OCCTO, ENTO-E and SAPP<sup>1</sup>**

	Mission
OCCTO	<ul style="list-style-type: none"> <li>● <b>Security</b> <ul style="list-style-type: none"> <li>· Securing Stable Electricity Supply</li> </ul> </li> <li>● <b>Economy</b> <ul style="list-style-type: none"> <li>· Suppressing Electricity Rates to the Maximum Extent Possible</li> <li>· Expanding Choices for Consumers and Business Opportunities</li> </ul> </li> </ul>
ENTSO-E	<ul style="list-style-type: none"> <li>● <b>Security</b> <ul style="list-style-type: none"> <li>· Pursuing coordinated, reliable and secure operations of the interconnected electricity transmission network</li> <li>· Promoting the adequate development of the interconnected European grid and investments for a reliable, efficient and sustainable power system.</li> </ul> </li> <li>● <b>Economy</b> <ul style="list-style-type: none"> <li>· Providing a platform for the market by proposing and implementing standardised market integration and transparency frameworks</li> </ul> </li> <li>● <b>Sustainability</b> <ul style="list-style-type: none"> <li>· Facilitating secure integration of new generation sources, particularly renewable energy</li> </ul> </li> </ul>
SAPP	<ul style="list-style-type: none"> <li>● <b>Economy and Sustainability</b> <ul style="list-style-type: none"> <li>· Aim to provide the least cost, environmentally friendly and affordable energy</li> <li>· Facilitate the development of a competitive electricity market</li> <li>· Give the end user a choice of electricity supplier</li> <li>· Ensure sustainable energy developments through sound economic, environmental and social practices</li> </ul> </li> <li>● <b>Security and Electrification</b> <ul style="list-style-type: none"> <li>· Provide a forum for the development of a world class, robust, safe, efficient, reliable and stable interconnected electrical system</li> <li>· Increase accessibility to rural communities</li> </ul> </li> </ul>

Source: website of OCCTO, ENTSO-E and SAPP as follows:

<sup>1</sup> [https://www.occto.or.jp/en/about\\_occto/about\\_occto.html](https://www.occto.or.jp/en/about_occto/about_occto.html)  
<https://www.entsoe.eu/about/>  
<http://www.sapp.co.zw/>

	Security	Economy	Sustainability	Electrification
OCCTO	○	○		
ENTSO-E	○	○	○	
SAPP	○	○	○	○



	Security	Economy	Sustainability	Electrification
APP	○	○	○	○

ATSO = ASEAN Power Grid Transmission System Operators Institution.  
 ENTSO-E = European Network of Transmission System Operators for Electricity.  
 OCCTO = Organization for Cross-regional Coordination of Transmission Operators.  
 SAPP = Southern African Power Pool.

#### Draft Mission of APP

- Securing stable electricity supply
- Facilitating economical and sustainable energy development
- Increase accessibility to rural communities

And in the future

- Providing a platform for the market by proposing and implementing standardized market integration and transparency frameworks

Source: Overview compiled by Nord Pool Consulting.

## 2. Japan

For keeping 'Life with Electricity' in Japan by securing stable electricity supply even in an emergency, the Organization for Cross-regional Coordination of Transmission Operators (OCCTO) plays as a control tower. It has three goals: (i) securing stable electricity supply; (ii) suppressing electricity rates to the maximum extent possible; and (iii) expanding choices for consumers and business opportunities.

OCCTO plays a major role in the promotion of cross-regional management of electrical businesses by<sup>2</sup>:

<sup>2</sup> [https://www.occto.or.jp/en/about\\_occto/about\\_occto.html](https://www.occto.or.jp/en/about_occto/about_occto.html)

- (1) Strengthening supply–demand control function in both normal and emergency situations on a nationwide basis
  - i) Instructing for improvement of supply instability situation to members
  - ii) Monitoring conditions of supply–demand and system operation 24 hours a day, 365 days a year
  - iii) Grasping situation of nationwide supply–demand balance by plan management
- (2) Securing mid-term and long-term stable electricity supply
  - i) Securing stable electricity supply by plan aggregation and generator bidding
  - ii) Formulating long-term development plan of cross-regional network and cross-regional network development plan and taking a lead in reinforcing necessary facilities
- (3) Developing fair utilization environment for power system
  - i) Formulating rules to be observed by system operators and users
  - ii) Accepting system impact studies for power generation facilities
  - iii) Managing use of interconnection lines
  - iv) Settling troubles amongst electric power companies
- (4) Operating a system to support procedures related to switching

### **3. ENTSO-E<sup>3</sup>**

#### **a. Mission**

The European Network of Transmission System Operators for Electricity (ENTSO-E) is the legally mandated body of electricity transmission system operators (TSOs) at the European level. Its mission is to fulfil its various legal mandates for the benefit of electricity customers, and to leverage its mandated work products to shape future energy policy for the benefit of society in the face of significant challenges in the following areas:

- (1) Security – pursuing coordinated, reliable, and secure operations of the interconnected electricity transmission network, while anticipating the decision to cope with upcoming system evolutions.
- (2) Market – providing a platform for the market by proposing and implementing standardized market integration and transparency frameworks that facilitate competitive and integrated continental wholesale and retail markets.
- (3) Sustainability – facilitating secure integration of new generation sources, particularly renewable energy, as well as significantly contributing to the European Union’s (EU) greenhouse gases reduction and renewable energy supply goals. These challenges also imply addressing network adequacy – promoting the adequate development of the interconnected European grid and investments for a reliable, efficient, and sustainable power system.

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<sup>3</sup> <https://www.entsoe.eu/about-entso-e/inside-entso-e/mission-and-vision/Pages/default.aspx>

b. Vision

ENTSO-E is the association of European electricity transmission system operators (TSOs) with key legal mandates from the EU institutions. It aspires to become the professional body to which European and national policy makers, regulators, and market participants turn for competent guidance. It prepares proactive proposals and objective assessments for technical, market, and policy issues related to the European electricity systems. ENTSO-E will take the TSO perspective at the European level and will create value for society.

#### **4. SAPP<sup>4</sup>**

a. Mission

Southern African Power Pool (SAPP) aims to provide the least cost, environmentally friendly, and affordable energy and increase accessibility to rural communities.

b. Our Strategy

SAPP's strategy is to be the most preferred region for investment for value for money by energy intensive users.

c. Vision

The following are SAPP's vision:

- (1) Facilitate the development of a competitive electricity market in the Southern African region
- (2) Give the end user a choice of electricity supplier
- (3) Ensure that the Southern African region is the region of choice for investment by energy intensive users
- (4) Ensure sustainable energy developments through sound economic, environmental, and social practices

The following are SAPP's objectives:

- (1) Provide a forum for the development of a world class, robust, safe, efficient, reliable, and stable interconnected electrical system in the Southern African region
- (2) Coordinate and enforce common regional standards of quality of supply, measurement, and monitoring of systems performance
- (3) Harmonize relationships between member utilities
- (4) Facilitate the development of regional expertise through training programmers and research
- (5) Increase power accessibility in rural communities
- (6) Implement strategies in support of sustainable development priorities

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<sup>4</sup> <http://www.sapp.co.zw/>