

# Chapter 5

## Summary of AGTP Guideline

**This chapter should be cited as**

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# Chapter 5

## Summary of AGTP guideline

### 1. Introduction

AGTP guideline contains the principles, framework, and other technical arrangements for the establishment of AGTP. It is one of the main deliverables for the project 'Study on the Formation of the ASEAN Power Grid Generation and Transmission System Planning Institution (AGTP)' by TEPCO.

Another coupled project, 'Study on the Formation of the ASEAN Power Grid Transmission System Operators Institution (ATSO)', is performed by Nord Pool Consulting. ERIA is the implementation agency for both projects.

This document proposed that AGTP and ATSO functions be put under one umbrella, APP, etc to keep a close relationship. ATSO and AGTP guidelines are developed without overlapping with same contents, unless necessary. The overall organizational structure of APP, which incorporates AGTP functions, is discussed in detail in ATSO guideline. AGTP guideline mainly deals with system planning and the corresponding proposal of regulations for APP.

The following are four of the five chapters of the guideline:

#### Chapter 2 Summary for current practices of system planning

This chapter explains main items of the current functions of AMS regarding the necessary interconnections study based on the answers to the questionnaire.

#### Chapter 3 Function of system planning department

This chapter elaborates the function of system planning department. Evaluation of supply reliability by checking demand and supply plan, and proposal for reinforcement of interconnections are the two main business.

#### Chapter 4 Roles and responsibility for system planning department

This chapter describes the responsibility of working group and subunits belonging to system planning department and proposes staffing at the initial stage and the advanced stage.

#### Chapter 5 Appendix, Current practices of system planning according to answers to the questionnaire

This chapter describes current practices about system planning amongst AMSs such as demand forecast, power development plan (PDP), transmission development plan (TDP), and interconnections development plans. All answers to AGTP questionnaire are shared in this chapter.

## **2. Summary of current practices of system planning**

Main items of the current functions of AMS as regards necessary interconnections study are shown below based on the answers to the questionnaire.

- (1) Procedures, criteria, and software
  - a) There are some difference in procedures and criteria amongst AMSs for developing demand forecast, power development plan, and transmission development plan.
  - b) As the software of transmission planning, power system simulator for engineering (PSS/E) is used in many countries.
  - c) As the software of generation planning, there are no de facto standard at present.
- (2) Corporation process with other countries
  - a) To study necessary interconnections, there are some cases of corporation process between only two countries. However, there are no cases of it amongst more than three countries.
  - b) To develop PDP and TDP, there are no cases of corporation process with neighbouring countries.
- (3) Others
  - a) Issues about environment to affect interconnections are under control in all AMSs.
  - b) All AMSs have organization to check or monitor PDP and TDP in national levels.

## **3. Business o system planning department**

### **3.1. Working group**

System planning department discuss, propose, and decide rules, criteria, and procedures to implement study and business for system planning as shown below.

- (1) Evaluation of supply reliability by checking demand and supply plan
  - a) How to develop demand forecast
  - b) Evaluation method of supply capacity
- (2) Proposal for reinforcement of interconnections
  - a) Procedures for long-term reinforcement policy
  - b) Criteria and procedures for the necessity of interconnections
- (3) Basic concepts for beneficiary and cost allocation

### **3.2. Subunit for aggregation of supply plan**

This subunit is for aggregation of supply plan that implements evaluation of supply reliability by checking demand and supply plan based on rules, criteria, etc. developed by working group.

### **3.3. Subunit for system planning for interconnections**

This subunit is for system planning for interconnections that implements proposal for reinforcement of interconnections.

This interconnection study is divided into two parts:

- (1) High-level study, which is implemented on an annual basis by staff in this subunit.
- (2) Detailed study, which is implemented on the specified period by staff in this subunit and related AMS experts who live in connecting grid points or are beneficiaries.

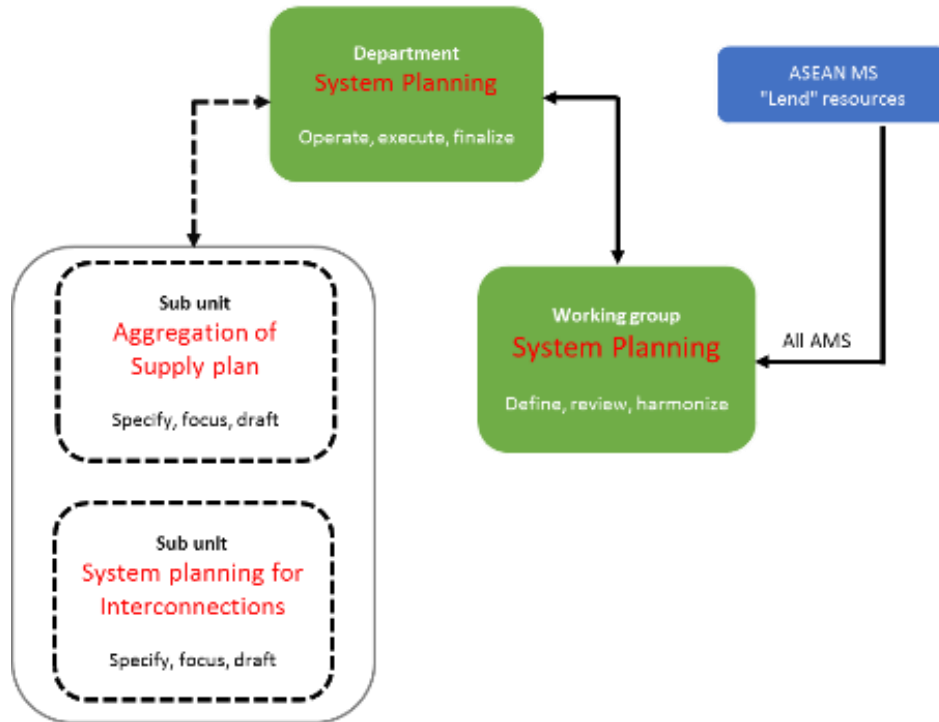
## **4. Roles and responsibility for system planning department**

### **4.1. In the initial stage**

APP is expected to be started as a small organization in the initial stage. System planning department study and discuss at the beginning system planning department starts to study and discuss the business, like the articles of incorporation, amongst themselves and establish regulations in working group (Figure 18). The following are the personnel who belong to this department and numbering less than five:

- (1) One department head
- (2) One or two staff to study and discuss the business of the system planning department like the articles of incorporation
- (3) One or two staff to establish the standards and regulation in working group

**Figure 18: Organizational Relations within System Planning Department in the Initial Stage**

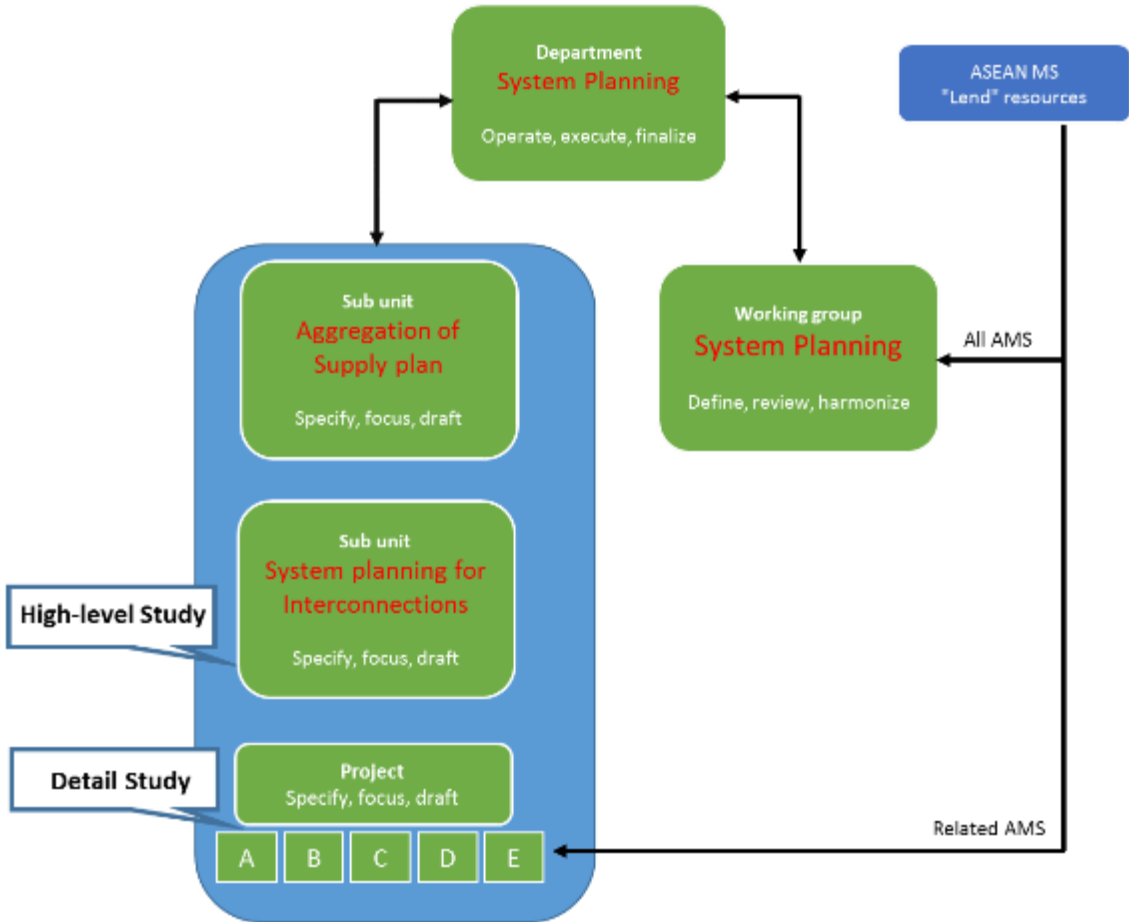


AMS = ASEAN member state.  
Source: Authors.

**4.2. In the advanced stage**

Figure 20 shows organizational relations in system planning department. Appropriate number of staff will be hired, and working group, including 10 AMSs, set the rules and criteria. Two subunits implement annual base business mainly for evaluation of 10 AMSs' supply plan and selection for necessary interconnections. When a subunit of system planning reaches the necessity of interconnections, it is studied in the project including related countries.

**Figure 19: Organizational Relations within System Planning Department in the Advanced Stage**



AMS = ASEAN member state.  
Source: Authors.