



**Asia-Pacific
Economic Cooperation**

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**APEC Initiative for Quality of Electric Power
Infrastructure Development - AEPC Energy
Resilience Task Force (EWG06 2015S)**

Purpose: Information
Submitted by: Japan



**54th Energy Working Group Meeting
Wellington, New Zealand
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APEC Initiative for Quality of Electric Power Infrastructure Development

AEPC Energy Resilience Task Force
APEC Energy Working Group [EWG06 2015S]

Background

In the APEC region, electricity demand has soared mainly due to its rapid economic growth. Given the gravity of enough and stable electric supply on enhancing people's living standard and its economic activity, shortage of electricity, delayed start of operation and frequent outage are huge risks to the society. Maintaining and enhancing the quality of electric power infrastructure in this region is one of the most important and urgent tasks APEC economies are facing. It can be achieved by commencing operation of power plants as scheduled, supplying electric power stably and implementing effective operation and maintenance (O&M) throughout the duration of service.

In October 2015, the APEC Energy Ministerial Meeting (EMM) affirmed the importance of "the quality of electric power infrastructure" in order to sustain the importance of environmental sustainability, including transition to low-carbon economy, and power supply robustness against disasters. At the same time, the Ministers welcomed "APEC Initiative for Enhancing the Quality of Electric Power Infrastructure", which includes the formulation of a guideline helping APEC economies secure and promote its quality.

Workshop Activities

The two rounds of workshop were held in Tokyo, Japan in August 2015 and August 2016 to discuss a draft "APEC Guideline for Quality Electric Power Infrastructure."

In the 1st workshop, 29 participants and 7 experts from APEC member economies, Non-APEC countries, international organizations and private companies were presented. The participants discussed problems and measures relating to electric power infrastructure in their economies.

In the 2nd workshop, 30 participants and 5 experts from APEC member economies, Non-APEC countries, international organizations and private companies were presented. Comments were made on the final draft guideline.



Outcomes

“APEC Guideline for Quality Electric Power Infrastructure” was published on October 2016.

The guideline aims to undertake to: (1) Facilitate understanding on how electric power infrastructure is built and operated, (2) Share best practices of electric power infrastructure, and (3) Provide and share useful suggestions of methodologies for securing quality of electric infrastructure.

The guideline frames Quality of Electric Power Infrastructure as a composition of the following six components:

- (1) Initial performance
- (2) Supply stability
- (3) Ability to smoothly stop and recover
- (4) Environmental and social consideration
- (5) Safety
- (6) Life Cycle Cost

The guideline explains how to evaluate each of six components in each phase of feasibility study, planning, construction, and operation.

The guideline is available from APEC website:

<https://www.apec.org/Publications/2016/12/APEC-Guideline-for-Quality-Electric-Power-Infrastructure>

Next Step

Related project “Making the Case for Clean Energy Investments with Life-Cycle Impact Assessments [EWG02 2017A]” is now in implementation.

Japanese electric utility companies have communication with South-East Asia electric utility companies, including this guideline aspect.

For further information, please contact:

Hiroki Yoshida

Ministry of Economy, Trade and Industry

yoshida-hiroki@meti.go.jp