

# **Earthquake Response Cooperation Initiative**

## **BACKGROUND**

Many APEC member economies are located in the region suffering from frequent earthquakes. In the past decades, several member economies such as China, Japan, Mexico, Chinese Taipei, Philippines, Indonesia and USA have experienced a series of severe earthquakes that resulted in serious damages to their energy supply infrastructure and their economic development, in addition to the loss of lives and properties. In January 1995, a severe earthquake hit Kobe and Osaka, Japan. A large fire resulted from the leakage of natural gas and caused tremendous damages.

In the early morning of September 21, 1999, the earthquake struck the central region of Chinese Taipei and resulted in tremendous disasters. Due to the collapse of transformer substations and several extra-high voltage electricity transmission towers, the shut down of electricity supply for over half of Chinese Taipei lasted for over one week. Furthermore, the rationing of electricity lasted for another two weeks. Also many other energy supply systems were seriously damaged, including natural gas pipelines, service stations, oil storage tanks, etc. After this big disaster, Chinese Taipei found that a cross-economies cooperative mechanism for energy supply system would benefit many APEC member economies. We would also like to share our valuable experience with other member economies.

## **INITIATIVE**

The main challenges faced by APEC member economies with regard to reducing the damage of energy supply system caused by a severe earthquake are to:

- Identify and verify the causes for the earthquake.
- Operate the emergency communication system and make it functional after the earthquake.
- Re-locate the emergency energy supply system.
- Investigate of the damage condition for the energy supply system resulted from earthquake.
- Execute the rescue action according the rescue plan.
- Implement the plan for the rebuilding of energy supply system.

Therefore, this initiative is to establish a cooperative contingency mechanism among the APEC member economies for energy supply system. It is also to provide an opportunity for all the APEC member economies to share their experience in both

preventing the collapse of energy supply system during earthquakes and rebuilding these systems after the earthquake. The initiative can be classified as the following five aspects:

1. Information Sharing

Exchange earthquakes related information and experience by conducting seminars and translating relevant information into English.

2. Policy Dialogue

Establish related policy dialogue at the level of the EWG for raising the awareness and harmonizing institutional measures of preventing severe damages.

3. Emergency Reactions

Set up contingency communication system to facilitate and monitor the rescue action.

4. Rescue Cooperation

Establish a database for accessing various resources of emergency energy supply within the member economies. Promote the exchange of necessary technologies for emergency energy supply.

5. Rehabilitation Programs

Advise rehabilitation programs for the reference of member economies. Develop information acquisition and management system in the aftermath.

**OBJECTIVE**

The main objectives of this initiative are to:

- Enhance and establish a mechanism on the sharing of information and experience among the member economies for preventing the damage of energy supply system during and after earthquakes.
- Improve the regional capabilities for rehabilitating the energy supply systems.
- Set up the networks of contingency mechanism to improve the regional security of energy supply.
- Promote the rescue cooperation and mitigate the impacts of earthquakes on energy supply infrastructure.

**STRUCTURE**

A project will be developed to realize this initiative. It will include regular communication on this issue between all the APEC member economies during each EWG meeting. A responsible economy will be selected by the EWG. The responsible economy will oversee the progress of this project and make report to EWG. All the APEC member economies can choose to participate in or host activities to provide valuable information for this initiative. The actions for this initiative will include workshop, seminars and publication of manuals. Each effort or activity under this project will seek its own funding from participating member economies, international financing organizations, foundations or the private sectors. Projects developed under each collaborative effort will take into consideration of establishing and operating the cooperative contingency mechanism of the energy supply system in response to earthquakes. Participation in this project is entirely voluntary. The progress of this project will be reviewed at the EWG meeting and the status of this project will be decided after three years of operation.

### **BENEFITS TO APEC**

This initiative will encourage APEC member economies to actively participate in this cooperative contingency mechanism. Such mechanism can mobilize all special facilities and rescue experts to any APEC member economy hit by a severe earthquake.