



**Asia-Pacific  
Economic Cooperation**

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Agenda Item: 6

**Statement on Notable Energy Developments:  
A Creative Convergence of ICT and Electricity  
Market to Develop NEW Growth Engines and NEW  
Service Industries**

Purpose: Information

Submitted by: Korea



**46<sup>th</sup> Energy Working Group Meeting  
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## STATEMENT ON NOTABLE ENERGY DEVELOPMENTS

### A Creative Convergence of ICT and Electricity Market to Develop NEW Growth Engines and NEW Service Industries

- ☐ Due to a sharp increase of social costs for power supply, there is a great difficulty to satisfy the rapidly growing demand of electricity.
  - Korean government needs to redirect the electricity policies to meet growing demands, particularly focusing on the demand side management. The government aims to reduce the demand of electricity rather than increase power supply.
  - Fundamental and systematic ways to manage the demand side need to be relied on our cutting-edge ICT. Implementing temporary measures for saving energy such as indoor temperature control is not effective to manage the demand side for a long-term.
- ☐ Based on the challenge faced, the government established a plan; to turn a power supply crisis into an opportunity to create a new market which creates new jobs and new growth engines for creative economy;
  - It also includes; integrating the secondary cell and software industry with the traditional energy industry, and making the opportunities for the new energy industries based on ICT, namely ESS, EMS, LED, etc. to enter into market;
  - creating a new market for DSM resources, so as to enhance new industries including ICT-based DSM services by increasing market participants and creating new jobs.

#### ◆ Action Plans

- ☐ **Energy Storage System (ESS)**
  - Various types of incentives will be provided to the power suppliers who have installed ESS; an acceptance of up to twice the amount of electricity actually generated by wind power generators using ESS; offering differential tariff options for peak and off-peak hours; grant incentives when to store electricity during nighttime and use in the daytime at peak hours.
  - Large energy consumers will be encouraged to install ESS; large-sized workplace in private sectors will be encouraged to install ESS with a capacity of more than 5% of the electricity contract amount; public institutions(more than 1,800) will be advised to install ESS as well.
- ☐ **Energy Management System (EMS)**
  - The government will actively induce public/private new buildings over 10,000m<sup>2</sup> and energy glutton buildings to install EMS that enables a building manager to know energy consumptions in real-time and to remotely control power supply;
  - To ease the burden of small and mid-sized enterprises who cannot afford the initial investment costs, for whom establish EMS, the government supports up to 50% of the installation costs, and provides additional incentives such as investment tax credits or offering additional points for project financing.
  - When ESCOs that possess EMS technologies use the ICT to manage power, they will be fostered by the government as 'aggregators,' the energy demand management companies who participate in electricity market and generate profits.
- ☐ **ICT-based High Efficiency Appliances**

- Promoting LED lighting deployment; LED retrofitting at places with heavy demand for lighting such as subways (stations), tunnels and terminals, using ESCO budget and project financing system; the government subsidies should be concentrated on weak social groups who cannot afford retrofits at their own expenses - the low income bracket, social welfare facilities, and poultry farmhouse, etc.
- Deployment of Smart-Plug; leading people to voluntarily reduce their energy use by letting them see their own energy consumption with their smart phones or PCs; starting from 2014, energy intensive appliances such as air-conditioners and EHPs will be given the 1th grade only when they are equipped with Smart-plug function inside.

☐ **Expanding Investments into Energy Efficiency**

- KEPCO, the sole electricity supplier in Korea, should engage in the demand side management beginning with investments in energy efficiency in houses and commercial buildings.

☐ **Facilitating the DSM Resource Market**

- The Korean government encourage private sector to participate various DSM programs in order to enhance national energy efficiency; private participation in DSM program should be promoted by cultivating Demand Response Aggregators so that various business models using DSM resources such as ESS, EMS, EHP etc. would be industrialized and create actual profits.