

April 10, 2014

**Toward Building an Energy-Independent and Low Carbon Society**  
**– Summary of Issues and Policy Proposal –**

**Policy Proposal Overview**

The Great East Japan Earthquake and the subsequent Fukushima Daiichi nuclear power plant accident forced Japan to review its current environmental and energy policies.

Given the prevailing situation, it has become essential to take immediate action to reduce skyrocketing energy costs and to promote the implementation of consistent environmental and energy policies for the mid and long term with a view of a society to reach for in the future in Japan. From that perspective, we have reviewed the actions that need to be taken. In this policy proposal, based on assumptions that Japan should aim for an energy-independent and low-carbon society, we propose the following six specific actions to support the building of such society.

**Policy Proposal 1: Review and Improve Policies to Promote Energy Creation**

Overcome the challenges of high energy costs and output power fluctuations by accelerating the development and widespread use of homegrown technologies for low-carbon power sources, such as renewable energies, and energy storage in order to improve energy self-sufficiency and reduce dependence on fossil fuels.

- i) Strengthen research and development systems to facilitate and promote the development and widespread use of revolutionary energy technologies.
- ii) Review existing feed-in tariffs scheme.
  - Establish an upper limit on the amount of surcharge borne by electricity consumers.
  - Give preferential treatment to top runners in energy conversion efficiency.
  - Ensure thorough transparency of electrical grid connections under the Organization for Nationwide Coordination of Transmission Operators.

## **Policy Proposal 2: Accelerate the Roadmap to Hydrogen/Fuel Cell Strategies**

Promote the widespread use of hydrogen energy, which is a virtually unlimited source of power and has the potential of becoming a source of power that does not emit carbon dioxide by supporting the creation of markets for hydrogen fuel cell vehicles, among other things.

- i) Prioritize investments in the research and development of hydrogen energy technologies and their commercial application.
- ii) Facilitate the widespread use of fuel cell vehicles and the development of hydrogen supply infrastructure.
  - Promote the development of energy supply infrastructure for next-generation vehicles.
  - Support the management and operation of hydrogen filling stations in their infancy stages.
  - Develop legislation to enable the supply of electricity from a fuel cell battery vehicle to a residence, etc. (vehicle to home power supply system).

## **Policy Proposal 3. Promote the Improvement of Energy Efficiency in Existing Homes and Buildings**

Develop a system in which the value of an existing home or building is fairly appraised based on energy efficiency in order to facilitate energy efficient renovations of existing homes and buildings with poor energy efficiency.

- i) Promote and support the development and popularization of a system in which energy efficiency performance is properly measured, such as the unification of criteria for appraising the values of existing homes and buildings.
- ii) Promote and support the development and popularization of a system that facilitates the maintenance and enhancement of the values of existing homes and buildings.

#### **Policy Proposal 4. Implement Support Measures to Help Build Distributed Energy Networks**

Utilize heat energy, such as exhaust heat generated from a dispersed power system and renewable heat, in order to reduce primary energy consumption and enhance energy self-sufficiency. Promote the systematic building of distributed energy networks by enacting a law and develop other necessary legislation in order to help facilitate the utilization of heat energy and introduce a large amount of renewable energy.

- i) Enact a law aimed at facilitating the introduction of distributed energy systems.
- ii) Develop legislation to facilitate the interconnected use of energy sources among buildings or regions.

#### **Policy Proposal 5. Promote the Development of Nuclear Safety Technology**

Promote the research and development of nuclear safety technology and risk management based on lessons learned from the Fukushima Daiichi nuclear power plant accident with the determination to fulfill its obligations to the international community and future generations through the development of the world's most advanced technology and competent human resources.

- i) Continue a full-scale investigation to pinpoint the causes of the Fukushima Daiichi nuclear power plant accident, with the full participation of experts both at home and abroad.
- ii) Promote the development of nuclear safety technology.
  - Strengthen the development of innovative technologies, such as those for enhancing the safety of a nuclear power plant, the decommissioning of a nuclear power plant, reducing the degree of hazard of radioactive waste, and reducing radioactive waste volume, among other things.
  - Develop and retain competent human resources in collaboration and cooperation with international organizations and the major nations of the world.

## **Policy Proposal 6: Strengthen the National System for the Promotion of Environmental and Energy Policies**

In order to promote the implementation of consistent environmental and energy policies in the mid and long term, create a new independent committee, which is modeled after the Committee on Climate Change in the United Kingdom and which is primarily composed of learned individuals in the private sector, and enact a fundamental law concerning climate change measures to ensure the implementation of such measures that are aligned with energy policies.

- i) Create a committee that comprehensively reviews and considers environmental and energy matters, such as energy resource plans and greenhouse gas reduction targets.
- ii) Ensure an early enactment of a new fundamental law concerning climate change measures.

###