

# Outline of the Annual Report on Energy for FY2011 (Energy White Paper 2012)

**Major point of the Energy White Paper 2012 - Energy Policy needs to be reviewed with a zero-based thinking methodology, based on a profound reflection on the Great East Japan Earthquake and the subsequent accident at TEPCO's Fukushima Daiichi Nuclear Power Station and identified issues -**

## 1. Issues Identified after the Great East Japan Earthquake and the Accident at TEPCO's Fukushima Daiichi Nuclear Power Station

The Great East Japan Earthquake and subsequent accident at TEPCO's Fukushima Daiichi Nuclear Power Station significantly damaged public trust in the safety of nuclear power. The disruption of energy supplies, including electricity, oil and gas, revealed the vulnerability of Japan's energy system.

<Identified Issues in response to the damage>

Electricity (incl. nuclear power)	Securing nuclear safety, increase of capacity of frequency conversion stations and interconnection lines, and avoidance of impact on industries caused by a tighter electricity supply-demand balance, etc.
City gas	Necessity of strengthening the network for the stable supply of city gas, etc.
Oil and LPG	Development of a system to ensure supply of oil products, etc. in the event of a disaster, including enhancement of disaster response capability and logistics functions of oil bases, service stations, and LPG stations, etc.

## 2. Major Energy Measures Taken after the Great East Japan Earthquake and the Accident at TEPCO's Fukushima Daiichi Nuclear Power Station

### (1) Electricity Supply-Demand Measures

(Summer and winter of FY2011 and summer of FY2012)

#### (i) Measures on the supply side

• Increased supply capacity (summer and winter of FY2011, and summer of FY2012), and implemented flexible power interchange in wider areas (winter of FY2011 and summer of FY2012), etc.

#### (ii) Measures on the demand side

- Summer of FY2011: Restricted electricity use and requested electricity saving, etc.
- Winter of FY2011: Requested electricity saving, etc., Restriction of electricity use was not implemented.  
→ Rolling blackouts and power failures due to tight supply-demand balance were avoided.
- Summer of FY2012: Requested electricity saving and reviewed the targets of electricity saving during the term

### (2) Restart of the Operation of Nuclear Power Plants

- Instructed emergency safety measures, compiled lessons from the accident, and instructed evaluation through stress tests, etc.
- Units 3 and 4 of Ohi Nuclear Power Station (Kansai Electric Power Co., Inc.) restarted operation in July 2012.

### (3) Review of the Electricity Rate System

- Based on the report compiled by the Expert Panel on Reviewing Electricity Rate System and Its Operation in March 2012, related regulations were revised in the same month.
- TEPCO filed an application for the approval of an electricity rate raise (increase by 10.28% on average) in May 2012. Through deliberations at the Expert Committee on Reviewing Electricity Rate, the electricity rate raise (increase by 8.46% on average) was approved in July.

### (4) Introduction of the Feed-in Tariff Scheme for Renewable Energy

- The Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities was enacted (August 2011)
- In June 2012, the purchase price and purchase period were settled and the scheme started in July 2012.

### (5) Toward revision of the Act on the Rational Use of Energy

- The bill to partially amend the Act on the Rational Use of Energy (Energy Conservation Act) was submitted to the Diet (March 2012), which incorporates measures for peak demand reduction of electricity use and energy conservation measures in the consumer sector.

## 3. Relating to the Accident at the Nuclear Power Station

### (1) Investigation and Examination of the Causes of the Accident by the Investigation Committee on the Accidents at the Fukushima Nuclear Power Stations of Tokyo Electric Power Company

- The final report was compiled in July 2011  
→ Proposed on seven items, including safety measures for nuclear power stations and measures to prevent or reduce damage

### (2) Initiatives by the Regulatory Authority based on the Accident at TEPCO's Fukushima Daiichi Nuclear Power Station

- Instructed emergency safety measures and ensured reliability of external power sources
- Decided to conduct stress tests (July 2011)  
→ Submitted reports on the primary evaluation for 22 nuclear power stations as of July 2012
- Control of severe accidents → Shifted to safety regulation which consider severe accidents.

### (3) Nuclear Regulation Authority (NRA)

- Cabinet decided the basic policy on the reform of organizations relating to nuclear safety regulation (August 2011)
- The Act for Establishment of the Nuclear Regulation Authority was enacted (June 2012).  
→ The Authority was established as an Article 3 (of the National Government Organization Law) based commission to unify the administration related to nuclear safety regulation affairs.

### (4) Efforts toward Decommissioning of Units 1 to 4 of TEPCO's Fukushima Daiichi Nuclear Power Station

- Compiled the "Roadmap towards Settlement of the Accidents at TEPCO's Fukushima Daiichi Nuclear Power Station"  
→ Confirmed a condition equivalent to "cold shutdown" in December 2011 (completed Step 2)
- Decided the medium- and long-term roadmap for decommissioning of Units 1 to 4 and the R&D plan (December 2011).

### (5) Nuclear Damage Compensation

- Established the Nuclear Damage Liability Facilitation Fund (September 2011)
- Approved TEPCO's "Comprehensive Special Business Plan" (May 2012) → Streamlined further excavation, minimum rate revision, new management system (temporary public management: around a 1 trillion yen contribution to TEPCO), etc.
- Commenced provisional compensation (April 2011) and permanent indemnification (October 2011) (as of the end of July 2012, around 1.1 trillion yen was paid (around 0.15 trillion yen (provisional compensation) and around 0.95 trillion yen (permanent indemnification), and improved operations relating to compensation-related matters.

### (6) Support for Residents affected by the Nuclear Accident

- Established Support Team for Residents Affected by Nuclear Incidents under the Nuclear Emergency Response Headquarters (March 2011)
- Lifted the designation of evacuation-prepared areas in case of emergency (September 2011)
- Rearranged the restricted areas and areas to which evacuation orders have been issued (April and July 2012)  
→ Allowed temporary access into the restricted areas  
→ Implemented four times by the end of July 2012 and a total of around 70,000 households (around 160,000 people) entered the areas
- Implemented decontamination → The Act on Special Measures concerning the Handling of Radioactive Pollution was promulgated in August 2011; started the model decontamination project in November 2011 and promoted full-fledged decontamination
- Supported "Fukushima Health Management Survey" (conduct The Thyroid Ultrasound Examination, would cover all people in the prefecture aged 0 to 18 years at The Great East Japan Earthquake), etc.

## 4. Review of Energy Policy Based on the Great East Japan Earthquake and the Accident at TEPCO's Fukushima Daiichi Nuclear Power Station

### (1) Relating to Electricity Systems Reform

- Expert Committee on the Electricity Systems Reform was established in February 2012, under the Coordination Subcommittee of the Advisory Committee for Natural Resources and Energy
- "Basic Policy on Electricity System Reform" was compiled in July 2012 with the aim of establishing electricity power systems open to the public, and proposed (i) full liberalization of the retail market and abolishment of rate regulation, (ii) full liberalization of power generation and revitalization of wholesale power exchange markets, and (iii) securing of the extensiveness and the neutrality of the power transmission/distribution sector, and enhancement of inter-area networks, etc. as a basic policy.

### (2) Natural Gas

- Expert Committee on the Infrastructure Development for a Shift to Natural Gas was established in January 2012, under the Coordination Subcommittee of the Advisory Committee for Natural Resources and Energy
- The committee compiled a report in June 2012, which recommends that the government shall formulate a "Basic Policy on Infrastructure Development" and promote infrastructure development by making the most use of power of private business operators, as well as suggests an ideal approach for promoting development, such as reduction of costs and boosting of regional demand.

### (3) Oil and LPG

- In order to strengthen the system to supply oil stably even in an emergency, the bill to revise the Oil Stockpiling Act was submitted to the Diet in February 2012, which incorporates the easing of the requirements for releasing stockpiled oil and the establishment of a joint work structure among oil refiner-distributors in the event of a disaster.
- In June 2012, "Strategy for securing natural resources" was compiled at the Ministerial Meeting on the Overseas Deployment of Integrated Infrastructure Systems, which consists of five pillars, including the strengthening of financing functions for the acquisition of resource rights.

### (4) Energy and Environment Council

- Energy and Environment Council was established in June 2011
- In June 2012, the Council presented three scenarios presuming to reduce the ratio of nuclear power by 2030 to 0%, 15%, and 20-25%, and carried out national discussions including public hearings, debate-based polling, and collecting public comments, etc. in July.

### (5) Review of the Basic Energy Plan

- In order to review the latest "Basic Energy Plan" (Strategic Energy Plan) compiled in 2010 based on the experience of the Great East Japan Earthquake and the accident at TEPCO's Fukushima Daiichi Nuclear Power Station, the Fundamental Issues Subcommittee was established in October 2011 under the Coordination Subcommittee of the Advisory Committee for Natural Resources and Energy
- Up to the end of July 2012, a total of 30 meetings were held to summarize main points of issues and prepare for a draft of options toward formulating a new plan.