

FY2012 Annual Report on Energy (Energy White Paper 2013) Outline

June 2013

Agency for Natural Resources and Energy

This is a provisional English translation. Please refer to the original Japanese for official use.

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○ **The Energy White Paper shall be reported to the Diet every year based on the Basic Act on Energy Policy**

○ **Part 1 of this White Paper, which is the tenth report to the Diet, consists of the following two chapters.**

• **Part 1, Chapter 1: Consideration of Global Experiences Surrounding Energy**

→ In this chapter, the report takes into consideration global experiences surrounding energy usage so that the Government of Japan is able to gain standpoints for establishing responsible energy policies in the future.

• **Part 1, Chapter 2: The Great East Japan Earthquake and Zero-based Review of Japan's Energy Policies**

→ In this chapter, the report describes the situations that Japan underwent from August 2012 to around the end of March 2013, concerning the key measures the Government took following the Great East Japan Earthquake and its zero-based review of its energy policies.

(the details of the situation up to the end of July 2012 were provided in the 2012 White Paper).

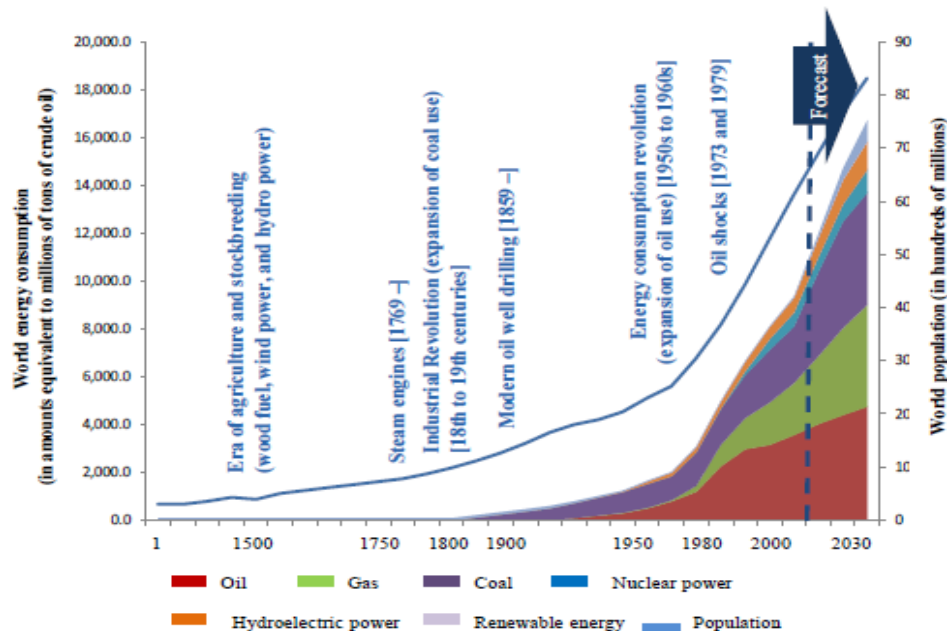
***Part 2 explains energy trends in Japan and overseas, and Part 3 outlines the measures taken during the previous fiscal year.**

Chapter 1: Consideration of Global Experiences Surrounding Energy

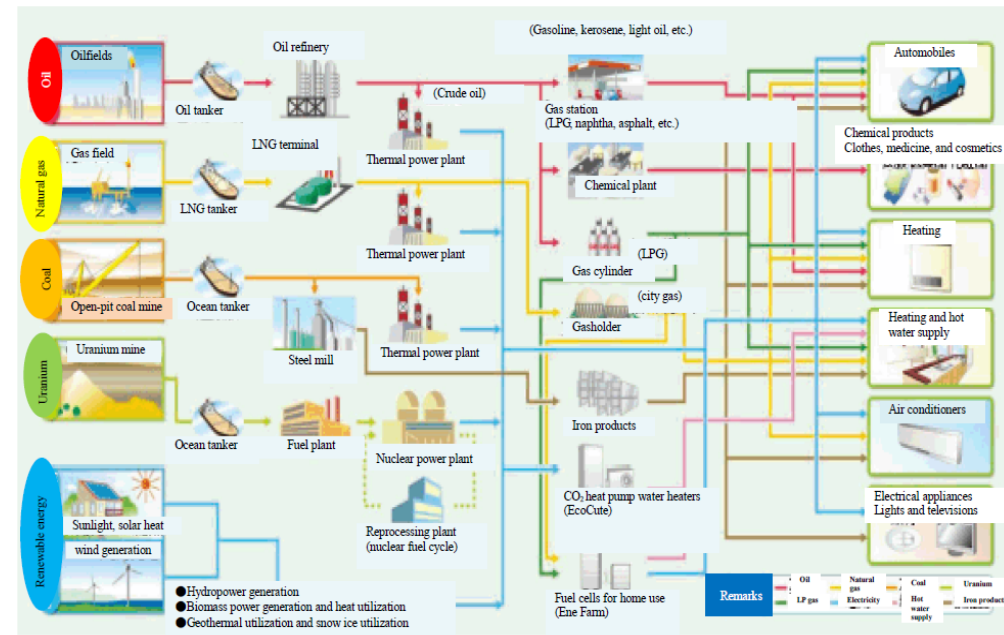
1-1 Human History and Energy

1. Human beings have improved and diversified their energy usage in accordance with the development of their lifestyles. Energy consumption has continued to increase due to the expansion of energy use and dissemination of convenient energy sources, such as coal, oil, and natural gas.
2. The utilization of energy in various fields has raised standards of living and improved public health, which has led to an increase in population and a resulting further expansion of energy consumption. This tendency is expected to continue into the future.
3. Energy is used in all aspects of today's society, including clothing, food and housing, as well as labor, travel, and entertainment. Today's society cannot be maintained without a stable and economical supply of energy.

Human History and Energy

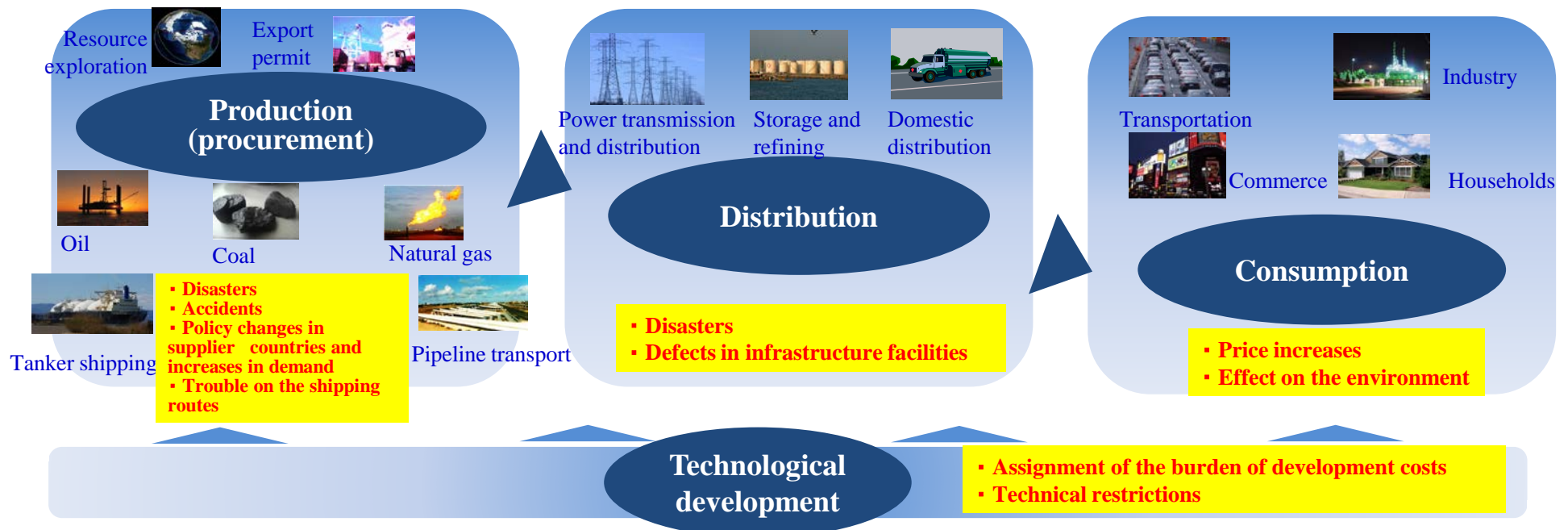


Diversified Energy Usage in Today's Society



1-2 Potential Risks behind the Complex Energy Supply Chain and Responses to be Taken

1. Energy is indispensable to the functions of modern society, but requires a long, complex supply chain consisting of cross-border production (procurement), distribution, and consumption before it can be utilized by end users at their companies and homes. Technological development is also a necessary cross-sectional factor.
2. A problem with any of the processes that make up the complex global energy supply chain can interrupt the stable and economical distribution of energy to end users.
3. The history of energy development and use, which progressed in concert with human development, contains examples of various problems that have emerged in the energy supply chain and responses taken to such problems. In order to establish a responsible energy policy, it is necessary to learn the lessons provided by these past examples.
4. In collecting examples from the past, we need to take into account the fact that Japan is surrounded by the ocean and lacks natural resources, despite being a technology-oriented nation with many advanced energy technologies.



1-2-1 Case Studies of Issues Surrounding Energy Supply Chain Processes

(i) [Production (Procurement) Process (i)]

Production (Procurement) Process (i)

Blockage of the Suez Canal (1956 and 1967)

– Blockage of a choke point –

A choke point of the route from the Middle East to Europe was blocked for ten months due to the Second Middle Eastern War. European countries attempted to reduce their oil consumption as an emergency measure. The canal was blocked again in 1967.

Ships sunk at the time of the blockage of the Suez Canal



Responses

European countries and other countries attempted to achieve independence from their conventional oil supply systems, which had become fully dependent on certain geographical areas (diversification and decentralization of supply sources). The OEEC (the predecessor of the OECD) recommended the special stockpiling of oil, and oil reserves were increased.

Nuclear Power Plant Accidents (1979, 1986, and 2011)

– Serious effects in the surrounding regions –

The IAEA International Nuclear and Radiological Event Scale and Past Major Nuclear Accidents

7: Major Accident	● Accident at the Chernobyl NPP, former Soviet Union (1986) ● Accident at TEPCO's Fukushima Daiichi NPS (2011)
6: Serious Accident	● Accident at Kyshtym, the former Soviet Union (1957)
5: Incident with Wider Consequences	● Accident at the Windscale NPP, the United Kingdom (1957) ○ Accident at the Three Mile Island NPP, the United States (1979)
4: Incident with Local Consequences	● Criticality accident at JCO (1999) ○ Accident at the Saint Laurent NPP, France (1980)

The accidents at the Three Mile Island NPP (1979), the Chernobyl NPP (1986), and Tokyo Electric Power Company's Fukushima Daiichi NPS (2011) seriously affected their surrounding areas.

Responses

- Accident levels are evaluated under three criteria: ● Criterion 1 (People and the environment); ○ Criterion 2 (Radiological barriers and controls at facilities), and ◎ Criterion 3 (Defence in depth). The highest scores are considered to be the evaluation results.

After the Three Mile Island Accident, the United States strengthened safety regulations, and after the accident at the Chernobyl NPP, countries including Germany, Belgium, and Sweden changed their policies on nuclear power and began seeking more diversified energy sources.

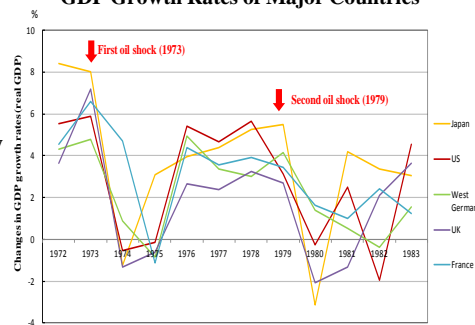
* The responses to the accident at TEPCO's Fukushima Daiichi NPS are detailed in Chapter 2.

The First Oil Shock (1973)

– Export controls by oil supplier countries –

The world had become increasingly dependent on oil, and oil producing countries in the Persian Gulf decided to raise crude oil prices and halt or reduce their crude oil exports, which exerted an enormous influence on the world economy and pushed the Japanese economy into recession.

GDP Growth Rates of Major Countries



Responses

Oil consuming countries took the initiative and responded in various ways, including geographic diversification of their energy sources and suppliers, proactive implementation of energy conservation measures, development of alternative energy, and promotion of international collaboration (establishment of the IEA).

Intensified Competition for Acquiring and Seizing Resource Interests (the 1970s and 2000s)

– Planned procurement of energy becomes increasingly difficult –

As resource-rich countries were trying to seize their resource interests, China, India and other emerging countries have begun to compete with each other on an increasingly intense basis to acquire resource rights and interests.

Examples of Emerging Countries' Acquisition of Interests in Oil and Natural Gas (2012)

China	CNOOC acquired a Canadian company, Nexen, for US \$15 billion.
India	PTT acquired an interest in a gas field in Mozambique for US \$1.9 billion.
Thailand	ONGC acquired an interest in the Kashagan oil field, Kazakhstan, for US \$5.0 billion.

Responses

Resource consuming countries have been striving to diversify and decentralize their energy sources, strengthen their diplomatic relationships with resource-rich countries (resource diplomacy), and increase the involvement of their national governments in the overseas expansion of state-owned oil companies, etc.

1-2-2 Case Studies of Issues Surrounding Energy Supply Chain Processes (ii)

[Production (Procurement) Process (ii) / Distribution Process]

Production (Procurement) Process (ii)

Natural Disasters (2005, etc.)

– Damage to production facilities due to hurricanes, etc. –

A large scale hurricane caused significant damage to U.S. refineries and production facilities in the Gulf of Mexico. Eight refineries suspended production, which accounted for 90% of the total oil production in the United States, and oil prices surged. The IEA decided to release oil reserves as an emergency measure.

Damaged oil refining facilities



Responses

It became clear that a locally tight supply-demand balance in one area affects the entire world via the international oil market. It became apparent that oil consuming and producing countries need to cooperate to stabilize the market.

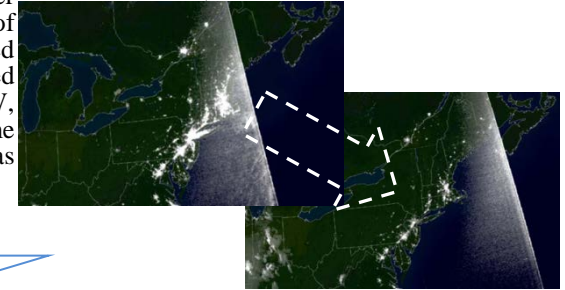
Distribution Process

Northeast Blackout of 2013

– A large-scale blackout caused by inadequate management and operation of the power grid system –

After a blackout occurred due to the inadequate management of a power transmission company, a lack of communication between related business operators further expanded the blackout (61.8 million kW, affecting 50 million people). In some areas, more than one week was required for complete recovery.

Effects of the Blackout (Changes in Night Views Visible by Satellite Observation)



Responses

The investigation committee established jointly by the U.S. and Canadian governments made recommendations on 46 items in its final report including the reliability standards of the North American Electric Reliability Corporation and means of ensuring the independence of the Council.

Accidents at Energy Production Facilities (2010, etc.)

– Large-scale accidents at production facilities and risks of outside attack –

Large-scale accidents at production facilities (such as the oil spill in the Gulf of Mexico) have caused significant environmental pollution, etc. Such facilities are also vulnerable to attacks from outside.

An oil drilling facility on fire



Responses

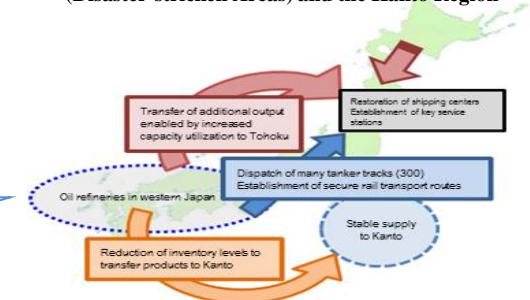
The United States temporarily suspended offshore oil drilling projects, and changed its policy to further prioritize a balance between safe operation and management efficiency.

The Great East Japan Earthquake (2011)

– Issues concerning the Energy Supply Infrastructure –

The Great East Japan Earthquake revealed problems in Japan's energy supply infrastructure, such as the fact that damage to oil refineries hindered the stable transportation of gasoline, etc.

Comprehensive Plan to Ensure the Supply of Gasoline, Light Oil, etc. in the Tohoku Region (Disaster-stricken Areas) and the Kanto Region



Responses

The government of Japan revised the Oil Stockpiling Act and strengthened a system to ensure oil supply even in an emergency.

1-2-3 Case Studies of Issues Surrounding Energy Supply Chain Processes

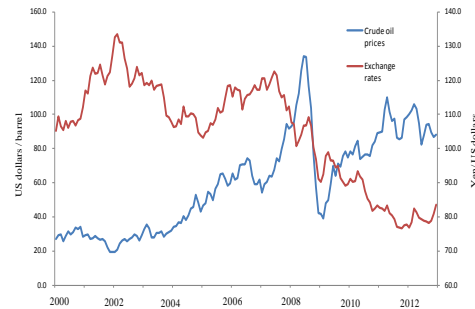
(iii) [Consumption Process / Technological Development]

Consumption Process

Rapid Energy Price Increases (the 2000s)

– Economic efficiency problems in energy use –

Changes in Crude Oil Prices



Crude oil prices were stable at approximately US \$20 per barrel throughout the 1990s, but have been rising since 2004, reaching their highest-ever level of around US\$ 147 per barrel in 2008. The price has since remained high.

Responses

The development and introduction of non-fossil fuel energy and unconventional fossil fuel energy has been promoted. Efforts to increase self-sufficiency ratios and acquire resource interests have also been active.

Effects on the Global Environment

– Environmental pollution and global warming due to the use of fossil fuels –

Air pollution has been caused by sulfur oxides, etc. generated due to the use of fossil fuels for power generation and transportation. In Europe, cross-border environmental pollution caused by air pollutants emitted in other countries has been a social problem since the 1960s, and since the 1990s, global warming caused by greenhouse gas emissions has also been recognized as a serious problem.

Responses

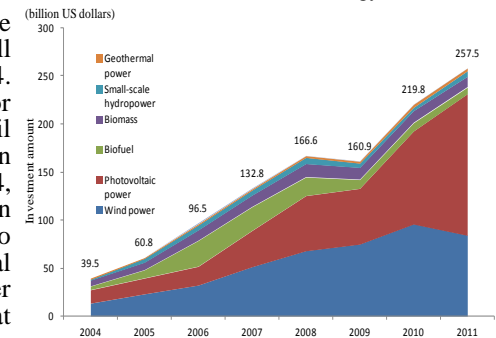
As countermeasures, technological development to curb emissions of air pollutants has been promoted and stricter regulations on fuel quality have been established. International deliberations have been underway regarding the issue of global warming.

Technological Development

Renewable Energy

– Photovoltaic power generation (approximately 40 years since the advent of the Sunshine Program) –

Changes in the World's Investments in Renewable Energy

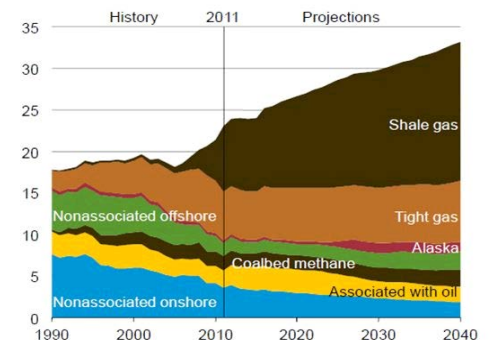


The principles underlying solar cells were discovered in 1839, and the first solar cell was invented 110 years later in 1954. Solar cells were first used mainly for satellites. However, triggered by the Oil Shocks, the Government of Japan launched the Sunshine Program in 1974, allocating approximately 500 billion yen from the national budget. Thanks to steady and continuous technological development, photovoltaic power generation is widely commercialized at present.

Unconventional Oil / Natural Gas Resource Development

– Shale gas (around 70 years) –

Projections of Natural Gas Production in the U.S.

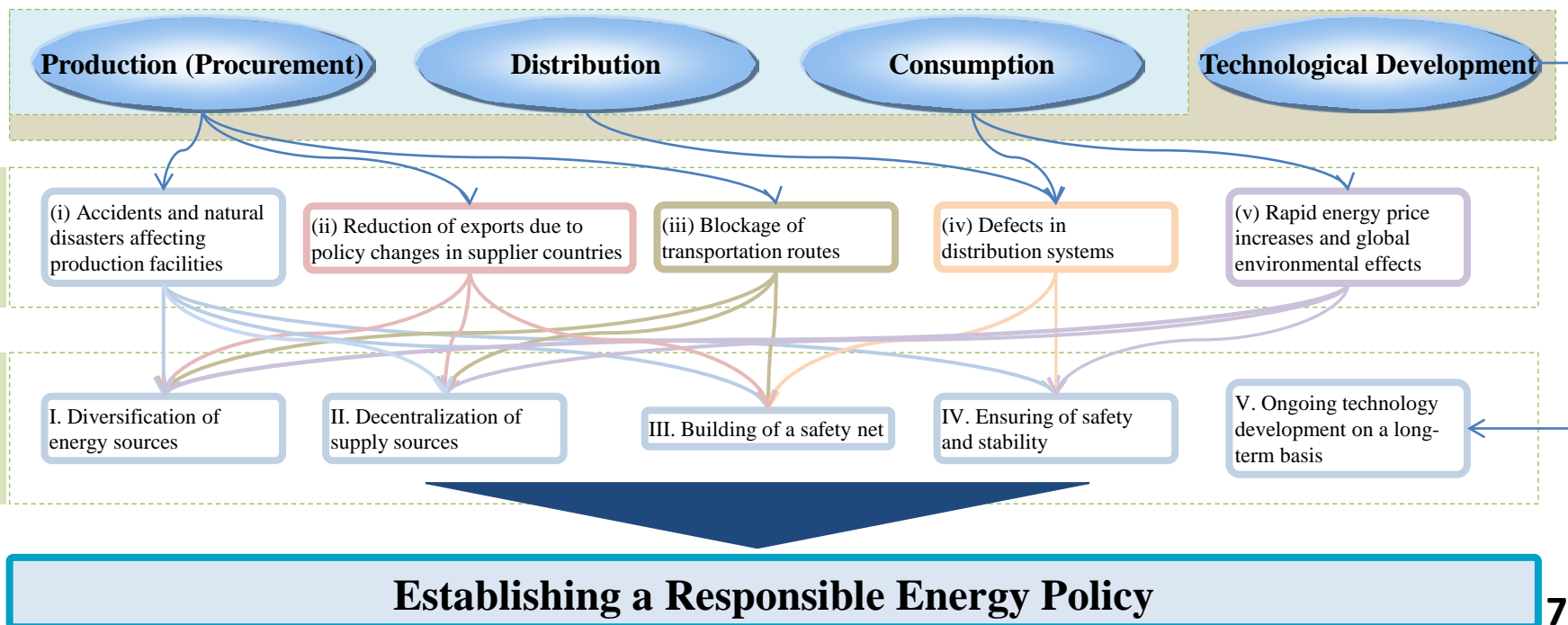


Shale gas production was not commercially-viable in the 1990s, but due to advancements in various drilling technologies (e.g., the hydraulic fracturing technology first introduced in the 1940s), the production of shale gas expanded rapidly starting in the mid-2000s. At present, shale gas accounts for 25% of total natural gas production in the United States.

* Technological development is a cross-sectional factor necessary for the production (procurement), distribution, and consumption processes. Energy-related technological development cannot be achieved in a short time, and often requires ongoing R&D investment for several decades before commercialization.

1-3 Perspectives on the Establishment of Japan's Future Energy Policy

1. Issues observed in the examples from the past can be roughly categorized as (i) accidents and natural disasters affecting production facilities, (ii) reduction of exports due to policy changes in supplier countries, (iii) blockage of transportation routes, (iv) defects in distribution systems, or (v) rapid energy price increases and global environmental effects. If any one of these occurs, the stable and economical supply of energy may be interrupted.
2. National governments have taken various measures to address these problems, but their goals can be categorized as I. diversification of energy sources, II. decentralization of supply sources, III. building of safety nets, IV. ensuring safety and stability, and V. ongoing technological development on a long-term basis.
3. Given these examples, it will be indispensable for the Government of Japan to carefully formulate measures in relation to all of the above-listed categories I. to V. in the attempt to enact responsible energy policies.



Chapter 2 The Great East Japan Earthquake and Zero-based Review of Japan's Energy Policies

1. Due to the Great East Japan Earthquake and the accident at TEPCO's Fukushima Daiichi NPS, as well as the rapidly changing global situation in which energy demand has been increasing mainly in emerging countries, Japan now faces new energy constraints. The Government of Japan needs to deal with the aftermath of the Fukushima Daiichi NPS accident and take meticulous measures in relation to the production (procurement), distribution, and consumption processes.
2. An energy policy should place great emphasis on the pursuit of all possible measures to ensure a stable energy supply and avoid hindering people's daily lives and economic activities in any circumstance. It is necessary to implement zero-based review on Japan's energy policy and establish a responsible energy policy also from the perspective of ensuring a stable energy supply and reducing energy costs.
3. Chapter 2 explains energy-related measures that have been taken since the release of the 2012 Energy White Paper (during the period between August 2012 and approximately the end of March 2013) and the status of the zero-based review of Japan's energy policy.

(1) In Relation to the NPS Accident

- (i) Nuclear power regulations
- (ii) Efforts towards Decommissioning TEPCO's Fukushima Daiichi NPS Units 1 to 4
- (iii) Compensation for nuclear accident-related damage
- (iv) Assistance of residents affected by the nuclear accidents

(2) Production (Procurement) Process

- (i) Introduction of renewable energy to the maximum extent
- (ii) Introduction of the world's most efficient thermal power generation facilities (coal and LNG), while giving due consideration to the environment
- (iii) Promotion of efforts to acquire resources and resource development in Japan

(3) Distribution Process

- (i) Electricity system reform
- (ii) Strict assessment of electricity rates
- (iii) Development of oil and LP gas supply systems

(4) Consumption Process

- (i) Energy conservation measures
- (ii) Energy management
- (iii) Electricity supply-demand measures

(5) Zero-based Review of Energy Policy

- (i) Energy and Environment Council
- (ii) Instructions, etc. given by the Prime Minister at the third meeting of the Headquarters for Japan's Economic Revitalization
- (iii) Energy policy discussions at the Council for Industrial Competitiveness
- (iv) Deliberations on the Basic Energy Plan

2-1 In Relation to the NPS Accident

(1) Nuclear power regulation

(i) Establishing the Nuclear Regulation Authority

The NRA was inaugurated on September 19, 2012. Its mission is to protect people and the environment through solid nuclear energy regulations. The NRA had held 35 Commission Meetings by the end of March 2013.

(ii) Initiatives to ensure the safety of nuclear/radiological facilities

Ensuring the safety of TEPCO's Fukushima Daiichi NPS, reviewing regulatory requirements (a draft of the new regulatory requirements was compiled in February 2013), and implementing investigations of fracture zones at NPS sites since October 2012

Implementing safety inspections at nuclear facilities nationwide (periodic inspections and operational safety inspections).

(iii) Initiatives to develop a crisis management system and mitigate the effects in the event of an accident

Development of a system to respond to nuclear disasters, preparation of the Nuclear Emergency Response Guidelines (October 2012), initiatives for emergency responses by the NRA, and radiation monitoring.

(iv) Initiatives to ensure trust in the nuclear regulatory administration

Ensuring transparency, neutrality, and independence, preventing self-isolation and self-righteousness, securing human resources and enhancing expertise, and international activities.

(2) Efforts toward decommissioning of TEPCO's Fukushima Daiichi NPS Units 1 to 4

(i) According to the Mid-and-Long-Term Roadmap, continuous efforts towards the decommissioning have been implemented. In order to commence fuel removal from the spent fuel pool at Unit 4, one of the current highest priority issues, rubbles in the upper level of the reactor building have been removed and a cover for the fuel removal is under construction. The fuel removal will start in November 2013.

(ii) On February 8, 2013, the Council for the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station was established under the Nuclear Emergency Response Headquarters. It aims to strengthen the R&D framework and to enhance the further collaboration between on-site work and R&D program. In order to accelerate the decommissioning, the Council initiates to strengthen the R&D organizational structure and to revise the Mid-and-Long-Term Roadmap.

(iii) In April 2013, the Committee on Countermeasures for Contaminated Water Treatment was established under the Council in order to consider the urgent measures against contaminated water leakage incidents and the mid-and-long-term measures to resolve the contaminated water problem fundamentally. The Ministry of Economy, Trade and Industry (METI) and the NRA have been cooperating with each other, and the government has made a concerted effort to steadily proceed with the decommissioning, including the contaminated water treatment.

(3) Compensation for nuclear accident-related damage

(i) Publication of compensation standards

METI publicized the Concept for Compensation Standards following Review of the Areas under Evacuation Orders in July 2012 (TEPCO began accepting compensation claims for housing lands, buildings, etc. in March 2013).

The Dispute Reconciliation Committee for Nuclear Damage Compensation added new types of damage due to harmful rumors concerning the agriculture, forestry and fisheries industries and the food industry (the third such addition) and enhanced the functions of the Nuclear Damage Compensation Dispute Resolution Center.

(ii) Approval of partial alteration of the Comprehensive Special Business Plan

In February 2013, the Cabinet Office and METI approved a partial alteration of the Comprehensive Special Business Plan which incorporates such matters as the expansion of the compensation support budget of 3.1 trillion yen and TEPCO's responses to the extinctive prescription of the right to seek damage compensation. TEPCO had paid approximately 2 trillion yen in compensation by the end of March 2013.

(4) Support for Residents affected by Nuclear Accident

(i) Rearrangement of restricted areas and areas to which evacuation orders have been issued

The areas to which evacuation orders have been issued are being rearranged in eleven municipalities (as of the end of March 2013, finished rearrangement in nine municipalities).

(ii) Temporary access into the restricted areas, etc.

Since May 2011, implemented seven times by end of March 2013 and a total of 233,106 people from 102,814 households entered the areas.

(iii) Decontamination

By the end of February 2013, the decontamination implementation plans have been established for special areas in nine municipalities. Full-scale decontamination works have commenced based on these plans from municipalities where preparations are completed.

(iv) Support for health management survey programs

The government fully supports Fukushima prefecture in many ways, and offers grants to the Fund for the Fukushima Health Management Survey established by the prefecture.

2-2 Production (Procurement) Process / 2-3 Distribution Process

2-2 Production (Procurement) Process

(1) Introduction of renewable energy to the maximum extent

(i) Steady and stable operation of the Feed-In Tariff Scheme

On the advice of the Procurement Price Calculation Committee, the purchase price for FY2013 was reduced to properly reflect a decline in the prices of photovoltaic power generation equipment (e.g., non-residential photovoltaic power generation: 42 yen/kWh (FY2012) → 37.8 yen/kWh (FY213)).

(ii) Reform of the regulatory systems to enhance infrastructure and expand introduction of wind and geothermal power requiring relatively low cost investment. Acceleration of environmental assessment procedures (concrete measures geared toward halving the time currently required for the relevant procedures (3 to 4 years)) is currently considered by the relevant ministries and agencies, and the cost for developing local power grids and conducting demonstrations is included in the initial budget for FY2013.

(2) Introduction of the world's most efficient thermal power generation facilities (coal and LNG), while giving due consideration to the environment

(i) Environmental assessment procedures will be further accelerated and clarified.

(ii) Technological development will be promoted to further enhance the world's most efficient power generation.

(iii) In principle, construction, expansion, and replacement of power sources will be consigned through bidding to enhance efficiency and transparency.

(3) Promotion of efforts to acquire resources and resource development in Japan

(i) Government-level approach to the acquisition of resources from important countries

Resource diplomacy targeting the United States (acquisition of approval for the export of LNG from the Freeport LNG project (corresponds to around 5% of the total LNG imported by Japan)), Russia, African countries, Australia, the UAE, and other countries

(ii) Strengthening the provision of funds to acquire resource interests

(a) The revision of the JOGMEC Act has made it possible to utilize the Fiscal Investment and Loan Program (Industrial Investments).

(b) A support system was created to provide preferential debt guarantees to projects that are expected to considerably reduce LNG prices.

(iii) Proactive utilization of international forums and rules

(a) Hosting of the LNG Producer-Consumer Conference and the Japan-Africa Ministerial Meeting for Resources Development.

(b) Cooperation with India and other LNG purchasers, where demand for LNG is increasing rapidly.

(iv) Promotion of resource development in Japan

(a) Implementation of the world's first offshore methane hydrate production test.

(b) Systematic resource exploration and trial boring in promising sea areas.

2-3 Distribution Process

(1) Electricity system reform

(i) Compilation of the report of the Expert Committee on the Electricity Power Systems Reform (February 8, 2013)

(ii) Cabinet decision on the Policy on Electricity System Reform (April 2, 2013)

The Cabinet decided on a policy to carry out reform in stages for the purpose of securing the stable supply of electricity, suppressing electricity rates to the maximum extent possible, and expanding choices for consumers and business opportunities.

First stage: Establishment of the Organization for Nationwide Coordination of Transmission Operators

A bill was submitted to the ordinary session of the Diet in 2013 with the aim of achieving the goal by 2015 (within 2 years).

Second stage: Full liberalization of entry to electricity retail business

A bill will be submitted to the ordinary session of the Diet in 2014 with the aim of achieving the goal by 2016 (within 3 years).

Third stage: Legal separation of the power transmission/distribution sector and full liberalization of retail electricity rates.

Efforts will be made to submit a bill to the ordinary session of the Diet in 2015 with the aim of achieving the goal from 2018 to 2020 (within 5 to 7 years).

(iii) Submission of a bill to revise the Electricity Business Act to the 183rd ordinary session of the Diet (April 12, 2013)

(2) Strict assessment of electricity rates

(i) Assessment by the Expert Committee on Reviewing Electricity Rates

Applications for increases in electricity rates filed by power companies are strictly assessed in neutral and objective deliberations by the Expert Committee on Reviewing Electricity Rates to determine whether their proposed rates have taken into account maximum business efficiency.

(Applications for rate increases filed by power companies: Tokyo Electric Power Company (filed an application in May 2012 (10.28% on average), received approval in July 2012 (8.46% (id.)), implemented on September 1, 2012); Kansai Electric Power Company (filed an application in November 2012 (11.88% (id.)), received approval in April 2013 (9.75% (id.)), implemented on May 1, 2013); Kyushu Electric Power Company (filed an application in November 2012 (8.51% (id.)), received approval in April 2013 (6.23% (id.)), implemented on May 1, 2013); Tohoku Electric Power Company and Shikoku Electric Power Company (filed applications in February 2013, now under assessment); Hokkaido Electric Power Company (filed an application in April 2013, now under assessment))

(ii) Reflection of power companies' efforts to reduce the fuel costs on electricity rates

The Minister of Economy, Trade and Industry released a statement that it is important for power companies to make their utmost efforts to reduce fuel costs before filing applications for increased electricity rates, and that their applications shall be assessed strictly while giving consideration to the effects of such efforts.

Based on this statement, strict assessments of the fuel costs for Kansai Electric Power Company and Kyushu Electric Power Company were conducted fixing the cost of LNG (the price of which is to be revised for long-term contracts during the cost fixing period) at the lowest price among power companies for FY2013 and FY2014 and at a price which partially reflects natural gas prices for FY2015.

(3) Development of oil and LPG supply systems

(i) Disaster preparation measures in Japan

The capacity to respond to disasters shall be fundamentally enhanced at oil and LPG supply stations and service stations.

(ii) Ensuring supply stability in the event of a disaster

The Oil Stockpiling Act was revised in November 2012, and the national stockpile of oil products was expanded.

2-4 Consumption Process

(1) Energy conservation measures

Since the oil crises, Japan has improved its energy efficiency by around 40%, but energy consumption by homes and buildings has increased by around 2.5 times.

For the purpose of strengthening energy conservation measures for homes and buildings, a bill to revise the Act on the Rational Use of Energy, which adds building materials, etc into the Top Runner Program, was submitted to the 183rd ordinary session of the Diet (March 5, 2013).

(2) Energy management

Experiments with demand response systems (which allow consumers to make selections according to supplier conditions) were conducted in four regions in Japan. These systems achieved a reduction of around 20% in the peak demand, demonstrating that peak demand can be controlled with systems and technology and that such control is also beneficial to consumers.

(3) Electricity supply-demand measures

(i) Electricity supply-demand measures in summer 2012 (Jul2012-Sep2012)

As the power supply-demand balance was expected to be tight, power conservation with numerical targets was requested and rolling blackouts were prepared in areas served by the Kansai Electric Power Company, etc. After the Ohi Power Station resumed operations, the numerical goals were mitigated. Power shortages were prevented via these measures, and rolling blackouts were not needed as a result.

(ii) Electricity supply-demand measures in winter, 2012 (Dec2012-Feb2013) Although the minimum reserve margin was expected to be ensured, power conservation with numerical targets was requested in service areas of Hokkaido Electric Power Company, the extremely cold region.

2-5 Zero-based Review of Energy Policy (i)

(1) Energy and Environment Council

On September 14, 2012, the Strategy for Innovative Energy and Environment was determined. A Cabinet decision was made on September 19 of the same year on future energy and environmental policy, stating that based on the Strategy for Innovative Energy and Environment (decided on September 14, 2012 by the Energy and Environment Council), the government shall enact a future energy and environmental policy, while holding discussions with the relevant municipalities and the international community, obtaining the people's understandings, and continuously verifying and reviewing the policy with flexibility.

(2) Instructions given by the Prime Minister at the third meeting of the Headquarters for Japan's Economic Revitalization and other occasions

Since the inauguration of the Abe administration in December 2012, the following instructions have been issued by the Prime Minister.

(a) Prime Minister's instructions at the third meeting of the Headquarters for Japan's Economic Revitalization (January 25, 2013)

"The Minister of Economy, Trade and Industry should carry out a zero-based review on the former administration's energy and environmental strategy and establish a responsible energy policy which also ensures a stable supply of energy and reduced energy costs."

(b) Prime Minister's response at the plenary session of the House of Councilors (January 31, 2013)

"The government will take all possible measures to ensure a stable supply of energy and avoid hindrances to people's daily lives and economic activities in any circumstance. The policy established by the former administration to halt the operation of all nuclear power plants by the 2030s lacks a concrete basis and has engendered anxiety and distrust among the municipalities that have accepted nuclear facilities and cooperated with the national government's energy policies, the international community, industry, and the remainder of the Japanese people. Therefore, we will carry out a zero-based review on their strategy for energy and the environment and will establish a responsible energy policy which also ensures a stable supply of energy and reduces energy costs. During this process, we will proceed with discussions with the goal of reducing dependence on nuclear power generation to the extent possible. We will make judgments on the resumption of the operation of nuclear power plants based on scientific safety standards, and will shift to a stable new energy mix within ten years and reach conclusions on the future of existing nuclear power plants within approximately three years. We will take time to fully discuss whether to construct new nuclear power plants, taking into consideration Japan's future energy circumstances, rather than fixating on numerical results."

(c) Prime Minister's administrative policy speech at the 183rd ordinary session of the Diet (February 28, 2013)

"In addition to exit from deflation at an early stage, we will endeavor to establish a responsible energy policy with the aim of ensuring a stable supply of energy and reducing energy costs. Based on the lessons we have learned from the accident at TEPCO's Fukushima Daiichi NPS, we will create a new safety culture to enhance safety without making compromises under the initiative of the Nuclear Regulation Authority. We will then reopen nuclear power plants whose safety has been confirmed. We will reduce dependence on nuclear power generation to the extent possible by promoting energy conservation and introducing renewable energy. At the same time, we will launch fundamental reform of electricity system."

2-5 Zero-based Review of Energy Policy (ii)

2-5 Zero-based Review of Japan's Energy Policy (ii)

(3) Discussions on energy policy at the Industrial Competitiveness Council

The following discussions were held concerning energy policy at the Industrial Competitiveness Council.

(i) Action Plan with the goal of becoming the “world’s most advanced country in terms of energy by taking advantage of various supply systems and intelligent consumption behaviors” (February 18, 2013; the second meeting of the Council for Industrial Competitiveness)

(a) The government aims to build the “world’s most advanced country in terms of energy by taking advantage of various supply systems and intelligent consumption behaviors” through the diversification of energy sources, low cost production (procurement), optimal and efficient distribution of energy, and intelligent consumption.

(b) The government will immediately commence efforts to overcome energy constraints and reduce costs in all fields relating to the production, distribution, and consumption of energy, with the aim of establishing a new energy policy

(ii) “Strategic Market Creation Plan” in the field of energy (March 29, 2013; fifth meeting of the Industrial Competitiveness Council)

In an effort to overcome energy constraints, discussions were held concerning technologies and industrial fields which will lead to growth (such as high-efficiency thermal power generation, storage batteries (in the field of vehicle storage batteries, the development of hydrogen stations in preparation for the launch of fuel cell powered vehicles, etc.), energy management systems, and next-generation devices (power electronics, etc.))

(4) Deliberations on the Basic Energy Plan*

(i) Fundamental Issues Subcommittee

The Fundamental Issues Subcommittee was established under the Coordination Subcommittee of the Advisory Committee for Natural Resources and Energy in October 2011. Thirty-three meetings were held in total, including three meetings held on or after August 2012.

(ii) Coordination Subcommittee

The Coordination Subcommittee of the Advisory Committee for Natural Resources and Energy was held on March 15, 2013, as an upgraded platform to discuss the Basic Energy Plan. Fifteen members met to discuss compiling the Basic Energy Plan by the end of the year.

*See Article 12 of the Basic Act on Energy Policy

(Reference)

Basic Act on Energy Policy (Act No. 71 of June 14, 2002)

(Extract)

(Report to the Diet*)

Article 11

Every year, the government shall submit to the Diet a report on the general situation regarding the measures it has taken in relation to energy supply and demand.

(Basic Energy Plan)

Article 12

(1) The government shall formulate a basic plan on energy supply and demand (hereinafter referred to as the “Basic Energy Plan”) in order to promote measures on energy supply and demand on a long-term, comprehensive and systematic basis.

(Omitted)

(3) By hearing the opinions of the heads of the relevant administrative organs and hearing the opinions of the Advisory Committee for Natural Resources and Energy, the Minister of Economy, Trade and Industry shall formulate a draft of the Basic Energy Plan and seek a Cabinet decision thereon.

(Omitted)

*Annual report concerning energy (Energy White Paper)