EU-Japan Policy Seminar
European and Japanese Energy Policy after Fukushima
December 2, 2011

Revision to the Japanese Energy Policy

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Ryo MINAMI

Director, International Affairs Division

Agency for Natural Resources and Energy (ANRE)

Ministry of Economy, Trade and Industry (METI) of Japan

1. Past Energy Policies

History of the Energy Policy Based on the 3 Es

○ In light of the two oil crises, Japan has been steadily promoting efforts to ensure a stable supply of imported resources while reducing the rate of dependency on external resources (through diversification of the generation mix and energy conservation)
○The energy policy of Japan, a country with limited natural resources, is based on the best mix of the 3 Es: "energy security," "economic efficiency" and "environmental preservation."

1970's 【Oil crisis ('73 and '79)】

Stable supply

・Ensuring stable supply by reducing the dependency on oil and introducing alternative energy to oil

1980's

・Promotion of energy conservation

【Demand for economic structural reform】

1990's Stable supply + Economic efficiency

・Ensuring economic efficiency through electricity/gas service reform

【Adoption of the Kyoto Protocol ('97)】

Stable supply + Economic efficiency + Environment

・Further promotion of the introduction of alternative energy to oil and energy conservation

2000's 【Enforcement of the Kyoto Protocol ('05), increased competition for resources】

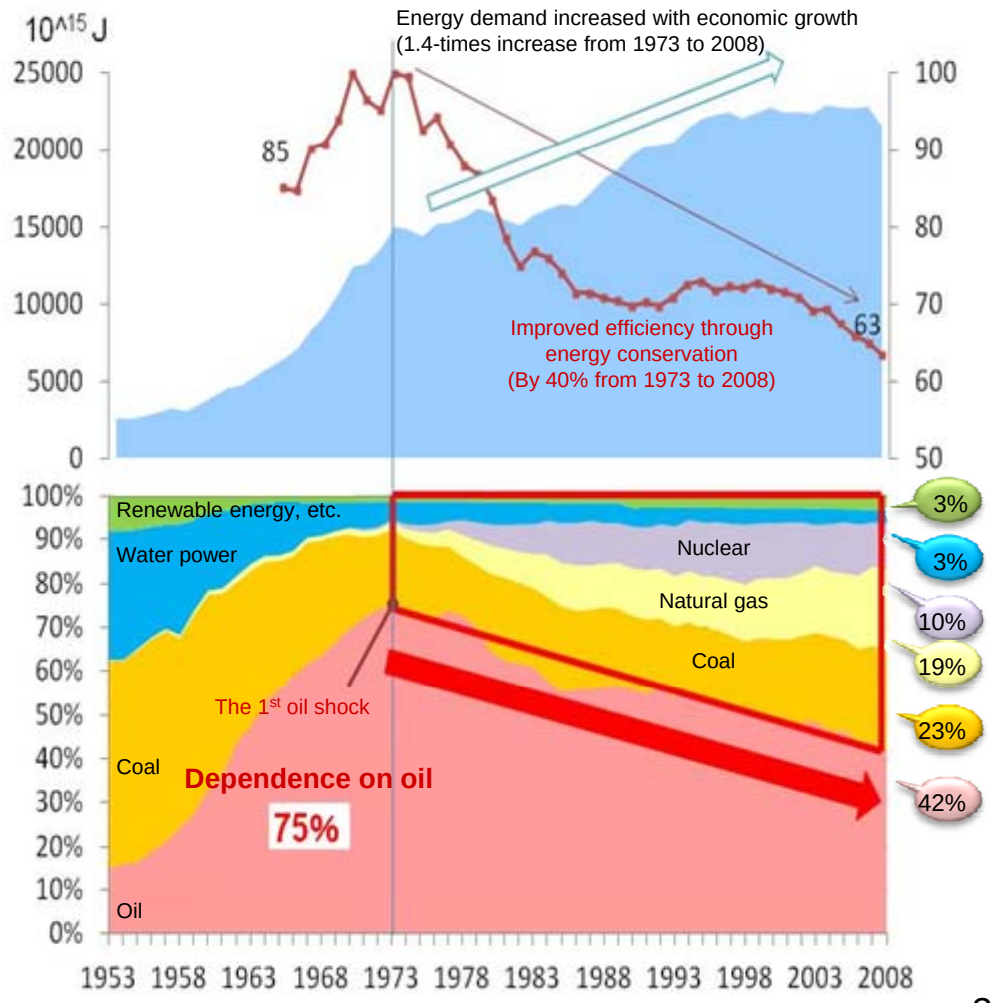
Stable supply + Economic efficiency + Environment

Reinforcement of the efforts to ensure resources

・Expanded introduction of non-fossil energy (renewables, nuclear)
・Strengthening of resource diplomacy

Current Basic Energy Plan (June 2010)

【Energy demand and energy supply mix of Japan】



Basic Energy Plan (Cabinet Decision in June 2010)

○A new Basic Energy Plan was formulated in June last year. In light of the growing consciousness of global warming, the plan aims to greatly improve Japan's energy self-sufficiency rate (about 18%→40%) and to reduce CO2 emissions resulting from energy by 30% by 2030 through all possible policy measures, including new and additional nuclear facilities.

Goals to be attained by 2030

○**Double the energy self-sufficiency ratio and the self-developed fossil fuel supply ratio**
(as a result, the energy independence ratio will be raised from 38% to about 70%)
○**Raise the zero-emission power source ratio from the current 34% to about 70%**
○**Halve the CO2 emissions from the residential sector**
○**Maintain and enhance energy efficiency in the industrial sector at the highest level in the world**
○**Maintain or obtain top-class shares of global markets for energy-related products and systems**

Actions for Target Attainment

Comprehensive efforts to secure resources and enhance supply stability

○Deepening strategic relationships with resource-rich countries in cooperation between the public and private sectors
○Achieving a 50% or more self-sufficiency rate for strategic rare metals, Etc.

Establishment of an independent and environmental-friendly energy supply structure

○Expansion of fixed-pricing and sales system of renewable energy, deregulation
○**Promotion of nuclear power**
New/additional facilities：9 by 2020 and more than 14 by 2030
Utilization rate：85% by 2020, 90% by 2030
○Improve the efficiency of coal fired power generation
Etc.

Development and diffusion of innovative energy technologies

Achieve energy demand structure to enable low carbon development

○Maintain and further strengthen the world's highest level of energy conservation (industrial sector)
○Net zero buildings/houses will be realized for new houses by 2030
○High efficiency lighting (LED, etc.) will be: Flow=>100% in 2020, Stock=>100% in 2030
○ Rate of future generation vehicles in new car sales will be a maximum of 50% in 2020, and a maximum of 70% in 2030.
Etc.

Realization of new energy society

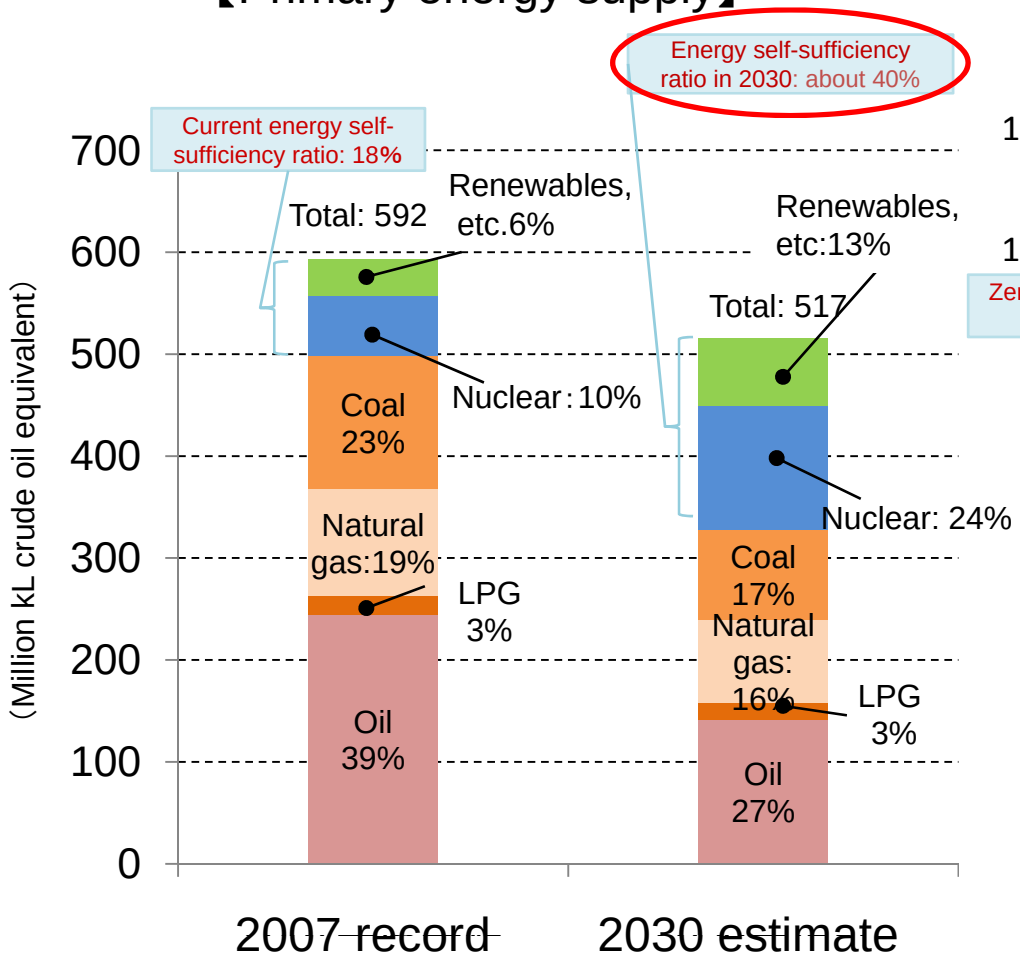
○Promote the demonstration of smart grid and smart community at home and abroad
Etc.

Overseas development in the field of energy and environment

Supply Forecast in the Basic Energy Plan
(Cabinet Decision in June 2010)

○The current Basic Energy Plan anticipates the increase of the energy self-sufficiency rate (18%→40%) and the zero-emission power source ratio (renewable energy: about 10% → 20%, nuclear power: about 30% → 50%) by 2030

【Primary energy supply】



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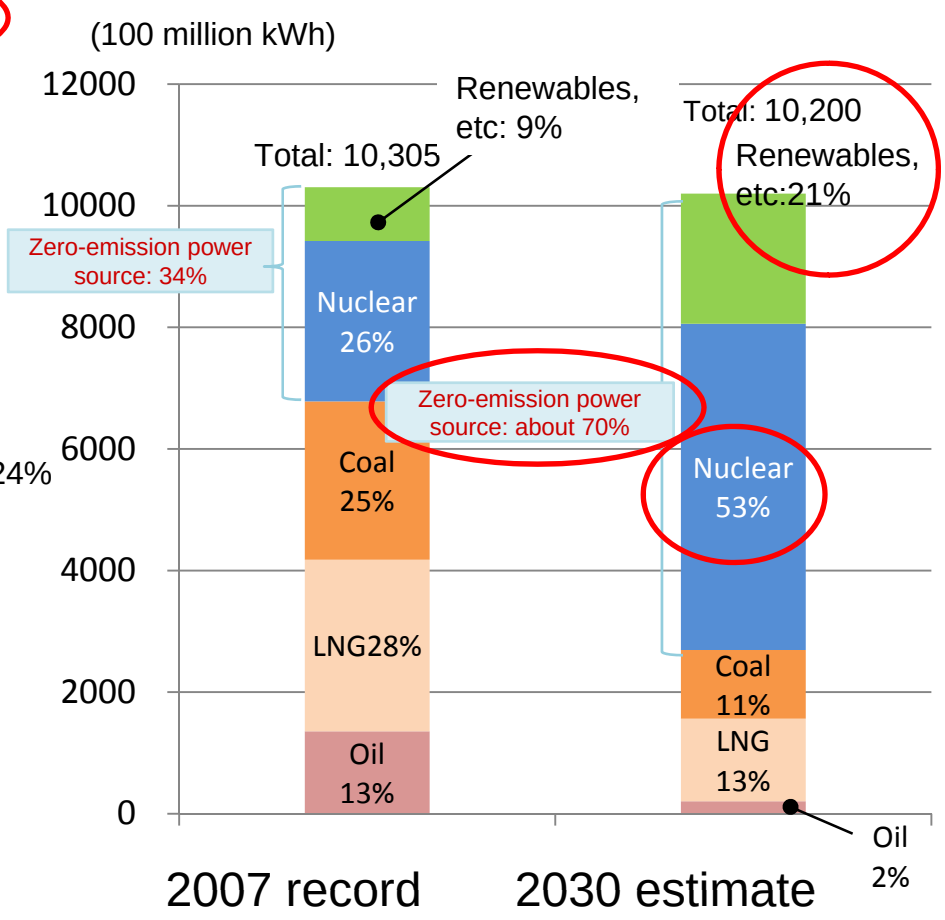


2. Future Energy Policy

Basic Philosophy of Innovative Strategy for Energy and the Environment

(Interim Compilation of the Enegy and Environment Council (7/29))

(1) Basic Philosophy1: Three principles for realizing a new best energy sources

Current Energy Mix

New Energy Best Mix

Principle 1: Draw up scenario of reducing dependency on nuclear energy
Principle 2: Utilize a clear and strategic schedule in order to avoid energy shortfalls and price rises
Principle 3:Conduct a thorough review of nuclear power policies and operate under a new framework

(2) Basic Philosophy2: Three principles for the realization of new energy systems

Concentrated Energy System

Distributed Energy System

Principle 1:Seek to realize distributed energy system
Principle 2: Seek to make an international contribution as an advanced problem-solving nation
Principle 3: Take a multifaceted approach to the realization of distributed energy systems

(3) Basic Philosophy3: Three principles for the formation of national consensus

Confrontation between the opposition to nuclear power and its promotion

National discussion with the theme of creation specific scenarios for reducing dependency of nuclear power

Principle 1:Stimulate national discussion overcoming the confrontation between the opposition to nuclear power generation and its promotion
Principle 2: Verify objective data
Principle 3: Formulate innovative energy and environmental strategies while maintaining dialogue with a broad range of national people

Strategy processes of Innovative Strategy for Energy and the Environment

Short-term (actions for the next three years)

1. Conducting energy structural reform ahead of initial schedule. Making all efforts to stabilize immediate supply and demand
2. Deepening national discussions for reducing dependency on nuclear energy and deciding the measures

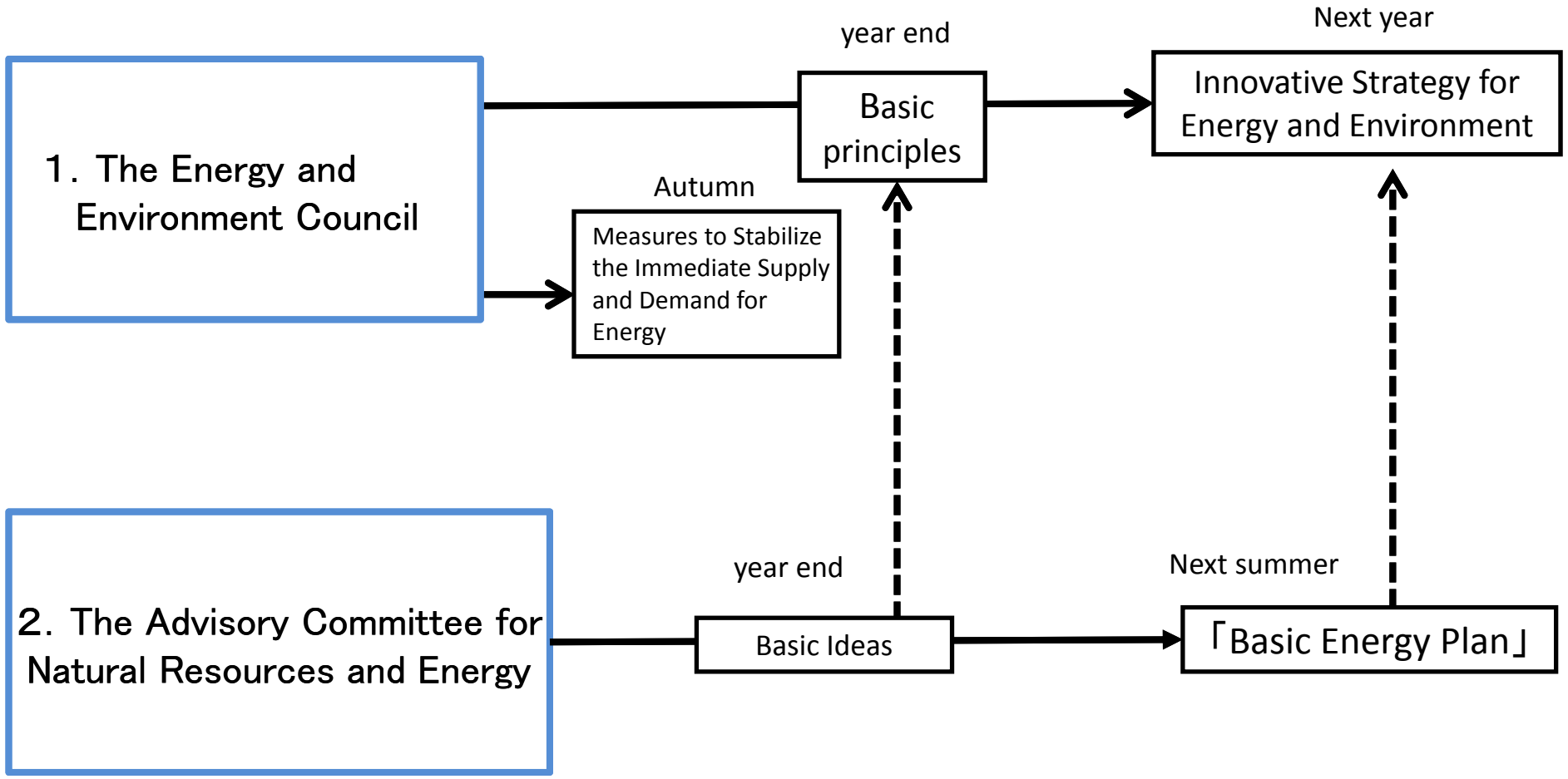
Medium-term (toward 2020)

Aiming at a new best mix asnd new energy systems

Long-term
(toward 2030 or 2050 from 2020

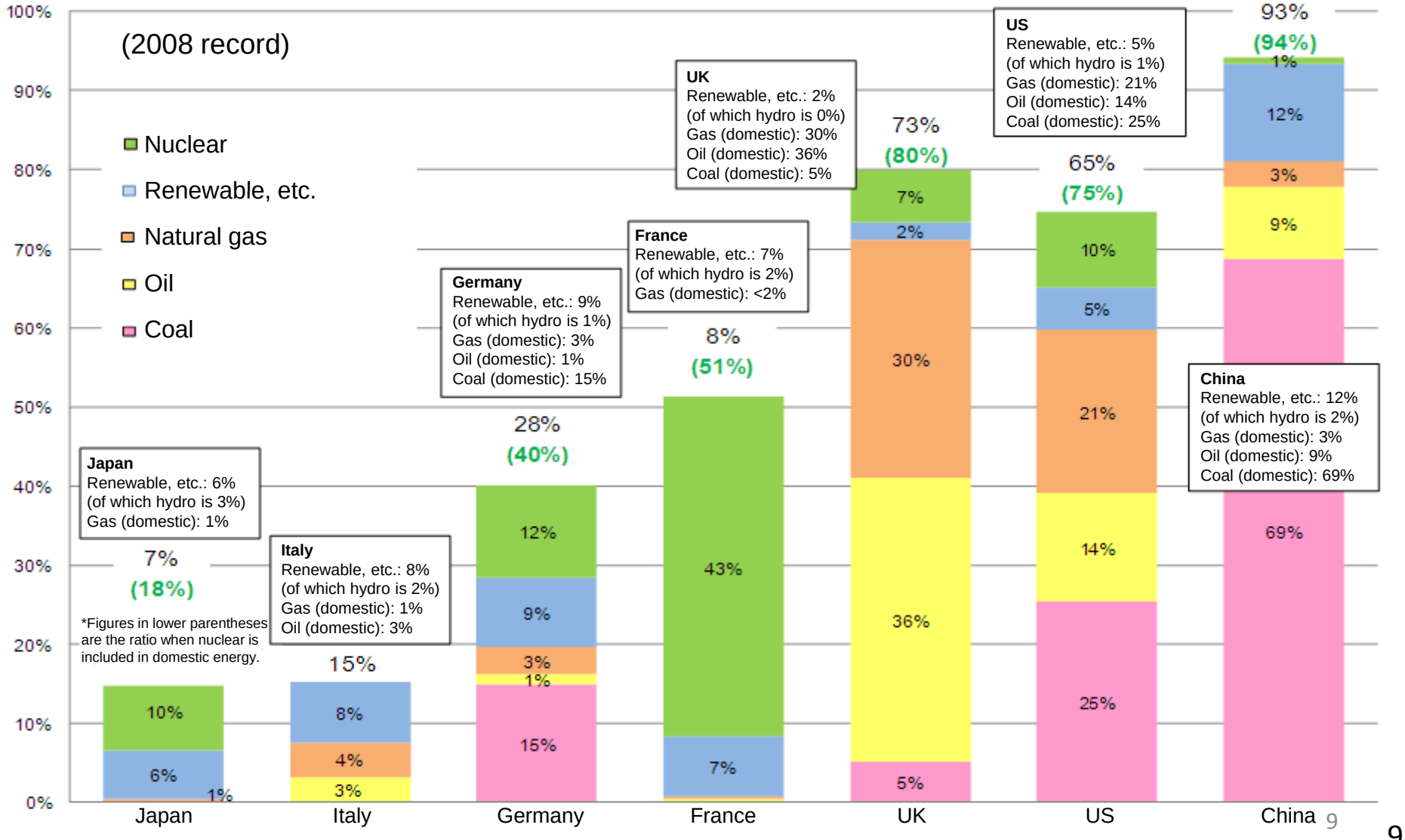
Realizing outcomes from a new best-mix and new energy systems

Realizing Innovative Strategy for Energy and Environment



Reference: International comparison of energy self-sufficiency ratios

○With little fossil fuel resources at home, Japan's energy self-sufficiency ratio is low compared with other countries.
○Japan's energy self-sufficiency ratio including nuclear power is 18% whereas the average ratio of developed countries* is 71%. (2008) *OECD countries



Source: ENERGY BALANCES OF OECD COUNTRIES, ENERGY BALANCES OF NON-OECD COUNTRIES (2010 Edition), IEA/OECD, Comprehensive Energy Statistics

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