

3. JAPAN

3.1 Energy Policies and Actions

Japan's energy policy is based on market principles, but at the same time it seeks to ensure a stable supply and environmentally friendly production and consumption of energy. In order to achieve the goals, there are some important practical actions as shown below.

(i) Promoting energy conservation and efficiency measures

One specific step being taken to promote energy conservation is the "Targets for Citizen Action" programme, which formulates and displays energy reduction rates for individual households, as well as average household lighting/heating energy consumption amounts, which serve as models.

(ii) Ensuring a stable supply of oil

Oil provides approximately half of Japan's energy, and it plays a central role in Japan's energy supply. The centrality makes the securing of stable supply of the required quantities of oil at an appropriate price an important focus of energy policy. Of this particular importance on this respect are efforts to ensure domestic reserves of oil and to independently develop oil fields.

(iii) Development and introduction of diverse sources of energy

Lowering the level of dependence on a single energy source through the development and introduction of diverse forms of energy reduces the risk of being negatively affected by disruptions in energy supply or soaring energy costs, and therefore contributes to the stability of the supply. From the perspective of the prevention of global warming, nuclear power and renewable energy sources, which produce no CO₂, and natural gas, which produces relatively little CO₂ in comparison with other fossil fuels, are particularly important for energy diversification. In particular, the National Nuclear Plan was proposed in August 2006 and the details are presented in section 3.5.

(iv) Basing the energy market on market principles

Japan is moving ahead with the liberalisation and deregulation of its energy markets, as the continuing advance of globalisation is bringing manufacturing and other industries in every country into international competition. However, energy differs from other products and services in that freeing the market could have a negative impact on the stability of supply and the preservation of the environment. Therefore it is essential to give adequate consideration to these two fundamental principles of energy policy in proceeding with structural reforms of energy markets.³⁷

³⁷ Referenced to the web site of the Agency of Nature Resources and Energy, http://www.enecho.meti.go.jp/topics/energy-in-japan/energy2006Epdf/p910_energy2006E-3.pdf

(v) Promoting energy efficiency

Measures are focusing on items such as in the residential sector including passenger cars and the commercial sector including the service sector:

- Moves for the approval of “the revised Law Concerning the Rational Use of Energy (Energy Conservation Law)” to strengthen measures aimed at the rationalisation of energy use for industrial, commercial and transport sector. Relevant actions include Top Runner Programme, Energy-Saving Labeling System, etc.
- Popularisation of Energy Management Systems, etc., for residential/commercial use.
- Expansion of top grade equipment such as oil and gas equipment.
- Accelerated introduction of cars conforming to the Top-runner fuel efficiency target.^{38 39}

“New Energy” Policy

The Japanese government promotes the technological development of low cost/high efficiency equipment and installation of new energy facilities. Below shows some important policies and actions:

- (i) The “Law Concerning the Promotion of Development and the Introduction of Oil Alternative Energy (Alternative Energy Law)” was enacted in order to provide a legal framework for the developments and implementation of oil alternative energy, and in addition to determination of, and public announcements for oil alternative energy targets.
- (ii) The “Law Concerning Special Measures for Promotion of New Energy Use (New Energy Law)” was enacted in April 1997 to accelerate the advancement of the introduction of New Energy, aiming to achieve its targets by 2010. This law provides for the financial support measures for utilities that use New Energy.⁴⁰

New Climate Change Programme

The Government of Japan has adopted the New Climate Change Programme in March 2002, which aims to stipulate policies and measures necessary for the achievement of the 6% emissions reduction commitment under the Kyoto Protocol. The fundamental principle is to contribute to both of the environment and economy with the aim of revitalising the Japanese economy through innovative initiatives of industry. All state and local governments, industries and the general public must share in efforts to prevent the global warming.

³⁸ Referenced to the web site of the Agency of Nature Resources and Energy, <http://www.enecho.meti.go.jp/english/policy/policy/measures.html>

³⁹ Web site of <http://www.nedo.go.jp/kokusai/kouhou/181206/session02/2-1.pdf>

⁴⁰ Referenced to the web site of the Agency of Nature Resources and Energy, http://www.enecho.meti.go.jp/english/policy/new_energy/outline.html

The Programme stipulates more than 100 domestic measures and policies to achieve the commitment. Measures for the reduction of greenhouse gases emissions are based on industrial, domestic and transport sectors and on the topics of energy conservation, new energy, fuel switching and nuclear promotion. ⁴¹

⁴¹ Referenced to the web site of the Ministry of Environment, <http://www.env.go.jp/en/earth/cc/020319.pdf>

3.2 Environmental Evaluation/SEA in Japan

In Japan, no formal provision has been made for a national system of SEA of policies, plans or programmes. However, the concept of SEA for policies, plans and programmes is taking into consideration for national and local governments. A proposed approach to environmental consideration for establishing master plans and other plans was presented in **Exhibit JP-1**.

The Basic Environmental Plan, agreed by the cabinet decision in 2000, addressed SEA, describing the need to consider the content and methods of consideration of environmental matters in plans and policies; to accumulate examples at national and local governments; and to consider the establishment of rules for SEA if necessary.⁴²

The Basic Environmental Plan (2000), provided mandates to:

- Carry out a review of the content and methods for including environmental considerations in decision-making on policies, plans, and programmes.
- Evaluate the effectiveness and practicability of such measures by reviewing cases and formulating guidelines based on the review.
- Consider the framework for including environmental consideration in decision-making on policies, plans and programmes, if necessary.⁴³

The design of the Basic Environmental Plan is to engage all sectors of the society in a concerted effort to protect the environment. The Plan maps out the basic approach of environmental policies with the mid-21st century in view and identifies four long-term objectives (1) environmentally sound material cycle (2) harmonious coexistence (3) participation (4) international activities. It also sets the direction of measures to be implemented by the early 21st century for achieving these objectives.⁴⁴

Ministry of Environment government of Japan has been conducting research work on SEA for several years and examining the appropriate way of implementing SEA in Japan. In addition to that, several local governments, such as, Tokyo metropolitan government and Saitama Prefecture, and Ministry of Land, Infrastructure and Transport have already introduced the idea of SEA into their environmental related plans and programmes.⁴⁵

In 2003, the Ministry of Environment issued preliminary guideline on SEA in the formulation of municipal waste-management plans. The Ministry of Land, Infrastructure and Transport also introduced guidelines for promoting public involvement in road, airport, and harbor planning and for taking into consideration

⁴² Extracted from the pamphlet titled "Environmental Impact Assessment of Japan" by the Ministry of Environment, Japan, <http://www.env.go.jp/en/policy/assess/pamph.pdf>, page.17

⁴³ Referenced to "Environmental Impact Assessment Regulations and Strategic Environmental Assessment Requirements – Practices and Lessons Learned in East and Southeast Asia" by the Environment and Social Development Unit (EASES), April 2006, <http://siteresources.worldbank.org/INTEAPREGTOPENVIRONMENT/Resources/EIA&SEA-regional-review.pdf>, pages 37-41 – Annex 5 Japan

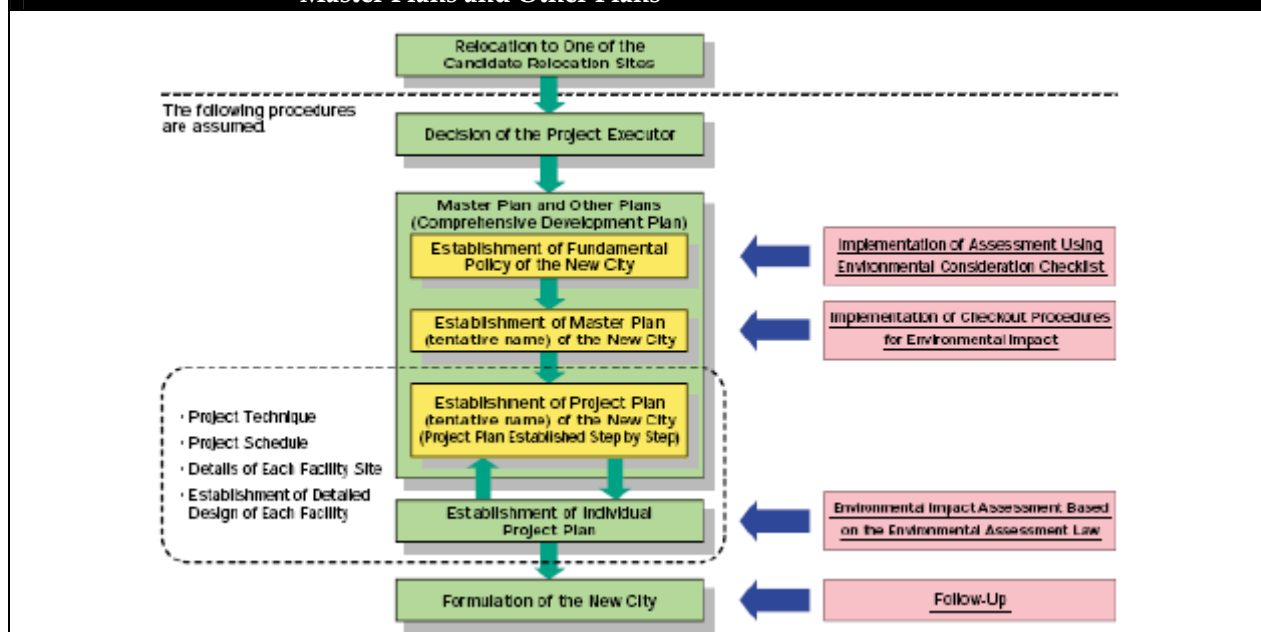
⁴⁴ Extracted from the web site of the Ministry of the Environment, Government of Japan, http://www.env.go.jp/en/laws/policy/basic_lp.html

⁴⁵ Referenced to the "Effective SEA system and case studies" by the Ministry of the Environment Government of Japan and Mitsubishi Research Institute, INC of Japan, Jun 2003, http://www.eia.nl/ncea/pdfs/sea/casestudies/japan_effective_sea_and_cases_6xnl_6xee_4xuk_03.pdf, page 3

alternatives in an early stage of the planning process. In addition local governments are taking leading role in SEA applications in Japan, with totally 47 prefectures and 12 big cities having applied SEA under their jurisdictions mainly in the areas of regional, land use and development planning, etc. However, some common problems are summarized as (1) poor alternative studies in both conduction and adoption of the recommendations, and social and economy comparison; and (2) weak public participation and later disclosure.⁴⁶

In April 2006, a new Basic Environment Plan (the third plan) was decided upon by the Cabinet. The plan sets out comprehensive and long-term government policies for environmental conservation under the Basic Environment Law. The new plan sets six new directions for future environment policy development, such as “Integrated Improvements of the Environment, the Economy, and the Society.” The new plan also includes policy programmes for 10 strategic fields to advance the efforts toward a sustainable society. Furthermore, the new plan establishes numeric indicators in every programme and sets “Comprehensive Environmental Indicators” for an effective enforcement of the plan.^{47 48}

Exhibit JP-1 Approaches to Environmental Consideration at Each Stage of Establishing the Master Plans and Other Plans⁴⁹



⁴⁶ Referenced to “Environmental Impact Assessment Regulations and Strategic Environmental Assessment Requirements – Practices and Lessons Learned in East and Southeast Asia” by the Environment and Social Development Unit (EASES), April 2006,

<http://siteresources.worldbank.org/INTEAPREGTOPENVIRONMENT/Resources/EIA&SEA-regional-review.pdf>, pages 37-41 – Annex 5 Japan

⁴⁷ <http://www.env.go.jp/en/headline/headline.php?serial=45>

⁴⁸ Details of the new Basic Environmental Plan can be found in this link: http://www.env.go.jp/en/policy/plan/3rd_basic/outline.pdf

⁴⁹ <http://www.mlit.go.jp/kokudokeikaku/iten/English/html/ne-e-20.pdf>

3.3 Environmental Evaluation/SEA on Energy Policies and Actions in Japan

In Japan, the concept of SEA for policies, plans and programmes including energy sector is provided under the Basic Environmental Plan, which administratively describes the need to consider the content and methods of consideration of environmental matters in plans and policies. Details of the requirements should refer to section 3.2.



Steam billows from the Number 3 reactor at the Mihama nuclear plant in Japan ⁵⁰



India-Japan Energy Forum ⁵¹

⁵⁰ Source: <http://www.smh.com.au/articles/2004/08/09/1092022409037.html>

⁵¹ Source: <http://www.nedo.go.jp/english/archives/190330/190330.html>

A summary table for the energy policies and actions and SEA status in Japan is presented in **Exhibit JP-2**.

Exhibit JP-2 Summary of Energy Policies and Actions and SEA Status in Japan	
(a) Energy Policies and Actions	
Energy Policies and Actions	Policies: <ul style="list-style-type: none"> • “New Energy” Policy Actions: <ul style="list-style-type: none"> • “Targets for Citizen Action” Programme • Top Runner Programme • Energy-saving Labeling System • New Climate Change Programme
Guidance/Legislations for Energy	<ul style="list-style-type: none"> • Energy Conservation Law • Alternative Energy Law
(b) Environmental Evaluations / SEA Status in Energy Policies and Actions	
Type of Assessment	Strategic Environmental Assessment
Requirement Mechanisms	Administrative
Legislation for Environmental Evaluation / SEA	Basic Environmental Plan
Applications	Policies, Plans and Programmes

3.4 Analysis and Conclusions

In Japan, the energy policy aims to ensure a stable supply and environmentally friendly production and consumption of energy. To achieve these goals, the government promotes energy conservation and efficiency measures through the “Targets for Citizen Action” programme, which formulates and displays energy reduction rates for individual households. Apart from leaning on oil supply, the government also introduces diversified energy sources such as renewable energy sources and natural gas. Regarding the Kyoto Protocol, the New Climate Change Programme was launched. The fundamental principle of the Programme was to contribute to both of the environment and economy with the aim of revitalizing the Japanese economy through innovative initiatives of industry.

When comparing with Hong Kong, one of its policy objectives is to increase and sustain conservation of energy in order to reduce the growing trend of energy use. In particular, the Energy Efficiency Labelling Scheme is one of the energy efficiency and conservation scheme which aims to save energy by informing potential customers of the product’s level of energy consumption and efficiency rating. This also helps to raise public awareness on energy saving.

With regard to the provisions of Environmental Evaluation/SEA in Japan, the concept of SEA for policies, plans and programmes in Japan is provided under the Basic Environmental Plan, which administratively describes the need to consider the content and methods of consideration of environmental matters in plans and policies.

While Japan is at an advanced stage in establishing an SEA system, Hong Kong has already two systems for SEA in Hong Kong, including an administrative requirement and a statutory requirement under Schedule 3 of the EIA Ordinance. Nevertheless, it would be better for Hong Kong to continuously improve its system on SEA by making reference to other countries, as well as to extent the application of SEA by enhancing its SEA system and providing specific SEA guidelines.

3.5 Examples of Energy Policies/Actions or their Environmental Evaluation/SEA

Example JP-1 Top Runner Programme ⁵²	
Description of Programme	<ul style="list-style-type: none"> • A concept to set the fuel efficiency standards higher than the performance of the best product among the products now commercially available in the same product category. • Manufacturers who have not achieved the standards are given advice, publicly announced, given an order, or fined. • 21 categories of product have been covered by the programme since 2006, and products like LCD and plasma TV sets, heavy vehicles, etc. were newly added.
Effects of Programme	<ul style="list-style-type: none"> • As for gasoline passenger vehicles, more than half of all new vehicles shipped in 2001 met the target standard before the target year 2010. • Some manufacturers demonstrated their willingness by announcing a plan to achieve the target standard by 2005 for all categories. • Saving energy has progressed steadily by adopting the programme. This trend has been approved as an effective policy tool to save energy in both the residential/commercial and transportation sectors, which have significant increases in energy consumption.
Planned Review and Addition for Programme	<ul style="list-style-type: none"> • It is considered to add products in the Top Runner Standard and conclusion will show in next year, including: vending machines, fluorescent lights, electric toilet seats, air conditioners (for business use), DVD recorders • Discussions are under way to newly include routers that have been coming into wider use in recent years in the top runner program.

⁵² <http://www.enecho.meti.go.jp/english/toprunner/program.pdf>
<http://www.nedo.go.jp/kokusai/kouhou/181206/session02/2-1.pdf>, page 10

Example JP-2 Nuclear Energy National Plan ⁵³	
Objectives of Plan	<ul style="list-style-type: none"> Continuing to meet at least 30 to 40% of electricity supply even after 2030 by nuclear power generation Further promoting the nuclear fuel cycle Aiming at commercialising practical Fast Burner Reactor (FBR) cycle.
Basic Principle of Plan	<ul style="list-style-type: none"> (i) Establish a firm national strategy and policy framework that does not waver over time. (ii) For individual policy measures and time frames, maintain a “strategic flexibility” to adjust to global realities and technology trends. (iii) Break down the three-way standoff among government, electric power utilities, and plant makers, to achieve true communication and a shared vision among players. The government must take the first step by indicating the overall direction. (iv) Place importance on policy measures of individual regions along the lines of national strategy. (v) Ensure policy stability by basing strategy decisions on open and even-handed discussions.
Actions of Plan	<ul style="list-style-type: none"> Building new nuclear power plants in a liberalized electricity market Appropriate use of existing nuclear power plants with assuring safety as a key prerequisite Deploying strategy for acquiring natural resources Promoting nuclear fuel cycle and strategically reinforcing of nuclear industries Early commercialisation of FBR cycle Assuring ample technical and human resources to support the next generation Supporting for international development of Japan’s nuclear industry Positive involvement in creating an international framework to uphold both non-proliferation and the expansion of nuclear power generation Building trust between government and local communities through detailed communication Reinforcement of measures for radioactive waste disposal

⁵³ <http://www.enecho.meti.go.jp/english/report/rikkokugaiyou.pdf>