

# A BRIEF HISTORY OF US–JAPANESE ENERGY RELATIONS AND COOPERATION

by

*Donald L. Guertin, Atlantic Council of the United States  
and  
Kazuo Shimoda, Committee for Energy Policy Promotion (Japan)*

*September 2000*

---

## I. Introduction

This paper presents a brief history of US-Japanese energy relations and cooperation. It has been prepared to provide background for discussions on how to further US-Japanese energy cooperation. The recommendations to enhance such cooperation are being developed in a joint effort by the Atlantic Council of the United States and the Committee for Energy Policy Promotion (Japan). These organizations have maintained an active relationship for 20 years, which has involved the preparation of major policy papers on energy issues of interest to both countries as well as 23 meetings to discuss issues of continuing interest. This brief history draws on documents received from the US and Japanese governments by the Atlantic Council and the Committee for Energy Policy Promotion and does not necessarily represent the views of both governments.

## II. Overview of Development: 1970 to present

The following chart highlights energy developments from the 1970s to the present, which have been of particular interest to both countries. The chart includes instances in which both countries address energy issues of common interest, i.e. the formation of the International Energy Agency. It also includes a few developments in the US and in Japan, which have been followed with interest in both countries, notably deregulation and restructuring of the electric utility sectors. The chart also presents specific examples of private sector or governmental sector bilateral activities of general interest, for example the introduction of nuclear power in Japan.

### ***Highlight of Energy Developments of Particular Interest to the US and Japan***

#### ***1970 – Present***

<b>1970s</b>	
International Energy	□ In response to reduced oil supplies in 1973 and 1974 caused by the Arab oil embargo, a Washington Energy Conference was held in February 1974. The

Agency	need for a coordinated response to the embargo was recognized by the US, Japan, the UK, Germany and other countries. The Conference created the International Energy Agency to manage an emergency oil sharing program.
Advent of Nuclear Reactors in Japan	<ul style="list-style-type: none"> <li>□ It was 1974 when Japan's tenth nuclear power reactor came into commercial operation. The first unit, which became operable in 1966, was a natural uranium fuelled British-type. All of the following units have been enriched uranium fuelled, light-water reactors of United States origin and were built by either Westinghouse or General Electric. Japanese manufacturers (Mitsubishi, Toshiba, and Hitachi) were also involved in construction work at this early stage and gradually took on responsibilities as the prime contractors under licensing agreement.</li> </ul>
Joint Coal liquefaction	<ul style="list-style-type: none"> <li>□ A joint R&amp;D project on coal liquefaction was undertaken in 1976 by the private sector. The consortium succeeded in operating a 250 tons/day pilot plant in Texas by 1982.</li> </ul>
Deregulation	<ul style="list-style-type: none"> <li>□ US law (1978) provided impetus for independent power producers. This was a first step in deregulation of the electric power utilities, which continues today and is being driven in particular by action at the state level.</li> </ul>
R&D Agreement	<ul style="list-style-type: none"> <li>□ The Japanese and US government signed an agreement for cooperation in research and development in energy and related fields in May 1979.</li> </ul>

	<b>1980s</b>
Private Sector Dialogue	<ul style="list-style-type: none"> <li>□ In 1980, the Committee for Energy Policy Promotion (Japan) and the Atlantic Council of the United States established a private sector dialogue to exchange perspectives on energy developments of common interest "in all seasons and all weathers."</li> </ul>
Japan and US R&D	<ul style="list-style-type: none"> <li>□ Japanese and US government energy R&amp;D cooperation continued, in particular in the fields of nuclear power and physics.</li> </ul>
Energy Working Group	<ul style="list-style-type: none"> <li>□ The Japanese and US governments formed an energy working group to exchange information in June 1983. Japanese representatives are the Ministry of Foreign Affairs and MITI. US representatives are the Department of State and the Department of Commerce.</li> </ul>
Nuclear Cooperation	<ul style="list-style-type: none"> <li>□ The Japanese and the US governments approved a revised and renewed agreement for nuclear cooperation in 1986. This agreement established a comprehensive framework for peaceful nuclear cooperation between Japan and the US. It included the transfer of materials, nuclear materials, equipment and components.</li> </ul>
Alaska LNG	<ul style="list-style-type: none"> <li>□ Following a joint statement by Prime Minister Nakasone and President Reagan, a private sector pre-feasibility study was launched to study export of Alaska LNG to Japan. The study concluded in 1987 that the project would not be feasible at that time.</li> </ul>

Brundtland Commission	<ul style="list-style-type: none"> <li>□ In 1987, the Brundtland Commission published <i>Our Common Future</i>, which stressed the need for concerted long-term action to assure sustainable development. Dependability, safety and environmental impacts of energy were addressed.</li> </ul>
APEC	<ul style="list-style-type: none"> <li>□ The Asia Pacific Economic Cooperation (APEC) forum was established in 1989. Original members were Japan and ten other Asian economies and the United States. Energy was an important issue of interest.</li> </ul>

	<b>1990s to Present</b>
APEC Energy Working Group	<ul style="list-style-type: none"> <li>□ APEC established an Energy Working Group in 1990. The Group has sponsored annual meetings of APEC energy ministers since 1996. The US Energy Secretary proposed an initiative to accelerate investment in natural gas infrastructure at the October 1998 energy Ministerial meeting in Japan. Japan is a strong supporter of this initiative. APEC works closely with the Asia Pacific Energy Research Center (APEREC), which is based in Tokyo.</li> </ul>
Activities of CEPP and ACUS	<ul style="list-style-type: none"> <li>□ CEPP and the Atlantic Council, sometimes in cooperation with experts around the globe, completed major policy studies on global climate change, sustainable development, Russian and Ukrainian energy policy and the future of nuclear power.</li> </ul>
Common Agenda	<ul style="list-style-type: none"> <li>□ Prime Minister Miyazawa and President Clinton launched the Common Agenda for Cooperation in Global Perspective (Common Agenda) in July 1993. Emphasis was placed on: promoting health and human development; responding to challenges to global stability; protecting the global environment; and advancing science and technology. Emphasis to date has been on environmental and health issues. Discussions are now underway to increase cooperation in the energy sector, with particular emphasis on climate change issues.</li> </ul>
Trilateral Commission	<ul style="list-style-type: none"> <li>□ The Trilateral Commission, consisting of private sector representatives from Japan, North America and Western Europe published a major study <i>Maintaining Energy Security in a Global Context</i> in 1996.</li> </ul>
Deregulation of Utilities	<ul style="list-style-type: none"> <li>□ In 1997, Japan joined the United States in undertaking deregulation and restructuring of the utility sector. The two governments established the “US-Japan Enhanced Initiatives on Deregulation and Competition Policy.”</li> </ul>
Kyoto Protocol	<ul style="list-style-type: none"> <li>□ At the COP-3 conference in Kyoto, Japan in December 1997, the parties to the UN Framework Convention on Climate Change agreed to a Protocol to reduce greenhouse gas emissions to 1990 levels by about 2010.</li> </ul>
R&D	<ul style="list-style-type: none"> <li>□ An August 1999 report of the President’s Committee of Advisors on Science and Technology recommended doubling the present funding for federal programs in international energy cooperation in fiscal year 2001. It is now</li> </ul>

<p>Generation IV Nuclear Power System</p>	<p>\$250 million per year. As the Japanese government has been a major funder of energy R&amp;D, strengthened cooperation would be desirable.</p> <ul style="list-style-type: none"> <li>□ In February 2000, the US Department of Energy, Japan and seven other countries agreed to pursue Generation IV nuclear power systems as a potential next generation option for the future. Such reactors should enhance safety management, non-proliferation, energy supply security, and the economics of nuclear power.</li> </ul>
<p>Future US–Japan Scientific &amp; Technical Cooperation</p>	<ul style="list-style-type: none"> <li>□ A May 2000 report of a Joint United States–Japan Dialogue group recommended strengthened long-term cooperation in science and technology in the environment, energy, and several other fields.</li> </ul>

### III. Discussions of Development from 1990 to the Present.

The remainder of this paper discusses some of the examples of cooperation of the Japanese and US public and private sectors from 1990 to the present.

#### A. Government Sector

##### 1. *APEC Energy Working Group*

APEC created the Energy Working Group in November 1990. Membership of APEC includes Japan, the United States and 19 other Asia-Pacific economies. Russia became a member in 1998.

The Energy Working Group is responsible for maximizing the energy sector's contribution to the region's economic and social well-being, including promoting regional energy security. The Working Group has undertaken activities to foster a common understanding of regional energy issues, facilitate trade and investment in the energy sector, reduce the environmental impact of the energy sector and broaden acceptance of equivalence in accreditation and harmonization of energy standards. The Asia Pacific Energy Research Center conducts research on APEC energy issues including publication of energy supply/demand outlooks. The Energy Working Group also created a business network in 1998 to foster business government interaction.

A significant initiative aimed at enhancing the use of natural gas in the APEC region was launched at the APEC Energy Minister Meeting in 1997. Japan and the United States have particular interest in this initiative. Japan is funding projects on the use of coal bed methane in China and mine mouth coal upgrading in Indonesia.

##### 2. *The US-Japan Common Agenda for Cooperation in Global Perspective*

The United States and Japan launched the Common Agenda for Cooperation in Global Perspective (the Common Agenda) in July 1993 with the aim of jointly seeking solutions to global problems, such as increasingly pressing environmental degradation, over-population, and damage from both natural and man-made disasters. The Common Agenda rests on four "pillars": promoting health and human development; responding to challenges to global stability; protecting the global environment; and advancing science and technology. These four pillars encompass

initiatives in 13 specific areas. The work on protecting the global environment, which is one of the pillars of the common agenda, includes: (1) energy conservation; (2) development assistance to benefit the environment; (3) global climate change research and prediction; (4) environmentally friendly and energy-efficient technologies; and (5) environmental education. As an example of these projects, the International Arctic Research Center for the study of the Arctic region from a global viewpoint, was established at the University of Alaska, Fairbanks. These activities come under review once a year at a plenary meeting at the vice-ministerial level.

In addition, the United States and Japan are actively pursuing solutions to global-scale problems relating to climate change, bio-diversity, toxic wastes, and the destruction of the ozone layer. The Global Observation Information Network, a Common Agenda Project having been promoted by both countries to monitor, predict, and issue warnings regarding climate change and disasters, has been succeeded by the multilateral Committee on Earth Observation Satellites.

### *3. The US-Japan Enhanced Initiatives on Deregulation and Competition Policy*

The governments of the United States and Japan agreed to establish “The US-Japan Enhanced Initiatives on Deregulation and Competition Policy (Enhanced Initiative)” in June 1997. The Enhanced Initiative consists of meetings of the high level officials group and of six expert-level groups, namely telecommunications, housing, medical devices and pharmaceuticals, financial services, energy (which was added in May 1998) and structural issues, including competition policy as well as issues related to transparency and government practices.

The two governments issued the First Joint Status Report in May 1998, reaffirming their determination to promote further deregulation.

The United States and Japan then exchanged submissions in October 1998. Both governments issued the Second Joint Status Report on the Enhanced Initiatives in May 1999. The salient Japanese deregulatory and other measures that relate to the dialogue under the Enhanced Initiatives are set out in the Report. This Report also contains a series of US deregulatory measures. Both governments share the view that these measures will improve market access for competitive goods and services, enhance consumers’ interests, increase efficiency and promote economic activity, and that these actions can help promote further deregulation and contribute to the dialogue under the Enhanced Initiative.

The governments of the United States and Japan again exchanged submissions in November 1999. Both governments issued the Third Joint Status Report in July 2000, at the Kyushu-Okinawa Summit Meeting. The two sides shared the view that in implementing deregulation in the energy sector, the two governments should be mindful of its potential effects on public welfare, energy security, and the environment.

The Ministry of Foreign Affairs and the Ministry of International Trade and Industry are in charge of the Enhanced Initiatives on the Japanese side while the United States Trade Representative (USTR) plays the same role on the US side.

The deregulatory and other measures undertaken by the government of Japan under the Enhanced Initiatives are as follows:

#### *a) High Pressure Gas Safety Law*

Part of the American Society of Mechanical Engineers (ASME) standards were accepted. The application requirements under this law were simplified.

b) *Electric Utility Industry Law*<sup>1</sup>

The government of Japan has enacted a bill to amend the Electric Utility Industry Law, which was implemented in March 2000.

c) *Upgrading Existing Power Generations Facilities*<sup>2</sup>

The government of Japan has enacted a bill to amend the Electric Utility Industry Law, which was implemented in March 2000 as is mentioned above, (b), to shift from a permit and approval system to a notification system for construction or upgrading of all power generation facilities, except nuclear power plants.

d) *Simplified and Rationalized Certification of Standby Generator Sets*

e) *Deregulation concerning Gasoline Stations and Gasoline Pumps*

f) *Restructuring of the Energy Sector*

1. *US – Japan Implementing Agreement*

Under this agreement, which was signed in October 1987, MITI and the US Department of Energy are engaged in activities which include ocean and geologic sequestration of CO<sub>2</sub> and its utilization, as well as hydrogen separation.

The United States and Japan also participate in the work of a committee on advanced clean coal technologies. Both Japan and the US are engaged in projects to integrate coal gasification and the use of fuel cells. Both countries also have projects designed to improve the efficiency and environmental performance of energy systems in the twenty-first century. (Agenda 21- Japan; Vision 21-US)

Japanese and US cooperation in the nuclear power field is discussed briefly in Annex B.

5. *US-Japan Dialogue on the Role of Science and Technology in Society*

*Into the New Millennium*

In May 1999, President Clinton and then Prime Minister Obuchi, requested a report on future United States–Japan scientific and technical cooperation into the new millennium. The report was sent to President Clinton and Prime Minister Mori on May 2, 2000.

The report highlights proposals for new and continuing work between Japan and the United States in the fields of health and medicine, the environment, energy, freshwater management, natural disaster mitigation and societal aspects of information technology. The report also notes new frontiers of science and technology of particular significance, for example, earth and space science. It also stresses the crucial role of science in helping address societal issues.

In the energy sector, the report proposes a “US–Japan Initiative to Accelerate the Global Transition to Cleaner Energy Systems.” It places particular emphasis on formalizing ties between

---

<sup>1</sup> See Annex A for notes on electric utility deregulation and restructuring in Japan and the US.

<sup>2</sup> *Ibid.*

the New National Institute of Advanced Industrial Science and Technology in Japan and the laboratories of the United States Department of Energy.

## B. Private Sector

### *1) Introductory Note : The US-Japan Energy Policy Dialogue*

In the late 1970s the Atlantic Council of the United States (ACUS) proposed to CEPP and the Institute of Energy Economics, Japan (IEEJ) that they might undertake a joint study entitled “The Energy Relationships of the United States and Japan.” In those days, oil supply was uncertain because of the Iranian Revolution and of soaring prices.

CEPP was in charge of the secretariat on the Japanese side and ACUS on the US side. After the first meeting was held in November 1980, and the second one in February 1981, joint policy recommendations to the governments of the US and Japan were formulated in June 1981. Energy experts of both countries agreed to promote mutual understanding and to make efforts to solve common problems through periodic meetings and the exchange of frank views on energy matters as a follow-up to the joint policy recommendations. Since then, meetings of the US-Japan Energy Policy Dialogue have been held in the US or Japan almost every year. The 23<sup>rd</sup> meeting was held in Hawaii in November 1999.

### *2) Joint US-Japan Energy Environment Project and Recommendations*

The US and Japanese experts on energy and the environment started a “Joint US-Japan Energy Environment Project” in 1989 under the worldwide environmental concerns including global warming. IEEJ, CEPP, the Global Industrial and Social Progress Research Institute (GISPRI) from the Japanese side and ACUS, and Resources For the Future (RFF) from the US side, participated in the project. After several meetings, joint conclusions and recommendations were made and announced at a press conference in Washington, D.C. in November 1991. One of the recommendations showed that it was indispensable to increase research on global climate change issues, including implementation of effective countermeasures.

### *3) Establishment of World Energy Efficiency Association (WEEA)*

In accordance with the joint US-Japan policy recommendations in a paper entitled *Energy Technology Cooperation for Sustainable Economic Development*, published in November 1992, the World Energy Efficiency Association (WEEA) was established. Its main purpose is to encourage worldwide efforts in the exchange of information on efficient use of energy and conservation. Experts from more than 30 countries and international organizations, including the IEA and the World Bank, participated in the conference founding WEEA, which was held in Washington, D.C. June 1993. CEPP, the Energy Conservation Center (Japan) and the Japan Electric Power Information Center took part in the formation of WEEA.

### *4) New Chair for the Study of Global Environment Problems at the University of Alaska*

CEPP, in cooperation with its eleven member companies, has established the Wadati Chair to study global environmental problem at the Geophysical Institute of the University of Alaska, Fairbanks in 1991. Its purpose is to bring together scientific knowledge of global warming problems

from a number of scientific disciplines, namely oceanography, meteorology, etc. and to analyze climate in the Arctic region during a ten year period ending until August 2001.

#### ***5) Energy Policies for the Newly Independent States of the Former Soviet Union (NIS):***

##### ***A US-Japan Cooperative Approach***

The Atlantic Council of the United States and CEPP, in cooperation with IEEJ as well as Russian and Ukrainian research institutes, undertook in October 1992 a project entitled “Energy Policies for the Newly Independent States of the Former Soviet Union (NIS): A US-Japan-NIS Cooperative Approach” to make policy recommendations on energy and the environment in the NIS.

In October 1993, a report titled *Basic Concepts for Development of Energy Policies for Russia and Ukraine* was made public in Tokyo by senior participants in the work from the above four countries. Three similar conferences followed in Washington, DC, Moscow and Kiev. The partners in this work continued to do research on energy policy, stressing points on pricing, taxation and investment beginning in April 1994. A second report including further policy recommendations was published in May 1995.

#### ***6) Trilateral Commission***

The Trilateral Commission (a private sector collaborative body from Japan, the United States and Western Europe) published a study on global energy security in September 1996.

The study presented policy conclusions on continuing dependence on Persian Gulf oil, the need for diversification of energy supplies, energy efficiency and new energy technologies, the role of markets, the significance of Russia and Central Asia in energy futures, the future of nuclear power, and the importance of sustainable development.

#### ***7) International Cooperative Project “The Long Term Future of Nuclear Power”<sup>3</sup>***

ACUS undertook this international cooperative project, whose purpose was to discuss an appropriate role for nuclear power throughout the world, on the basis of initial discussions in “The US-Japan Energy Policy Dialogue” mentioned above. The first seminar focusing on the role of nuclear power in Asia was held at Seoul, Korea in June 1997. Experts from the United States, Japan, a number of Asian and European countries, as well as Latin America, and international agencies participated in this effort. The group published a report, *An Appropriate Role for Nuclear Energy in Asia’s Power Sector*, in January 1998. The group held a second seminar at Cannes, France in May 1998 and published the final report titled *An Appropriate Role for Nuclear Power in Meeting Global Energy Needs* in September 1999. Participants then presented the conclusions and recommendations in the report to their governments, the media and other interested groups. It is important to note that the working groups involved in these projects included individuals with broad knowledge of energy issues, economists and social scientists, as well as nuclear energy experts. The report stressed the critical importance of a safety culture, responsibility for management of radioactive waste and spent fuel, the financial integrity of the electric power sector, long-term R&D, attention to dual-purpose use of some nuclear technologies, the importance of public communications, and international cooperation.

---

<sup>3</sup> Use Annex B for a brief description of Japanese-US cooperation in the nuclear power sector.

## ANNEX A

### Electric Utility Restructuring

Japan and the United States are both engaged in deregulation and restructuring of their electric utility sectors. The electric utility sectors in both countries have traditionally been regulated. In the United States this has involved the Federal Energy Regulatory Commission and state regulatory commissions. Many states do not regulate government owned utilities or electric cooperatives. In Japan the electric utility sector is regulated by the Ministry of International Trade and Industry. There are only ten general electric utilities in Japan. They are privately owned and vertically integrated and have mutually exclusive supply areas.

While deregulation and restructuring are presently underway in both countries, they began at an earlier date in the US. In 1978 the National Energy Act came into force. It included a provision to expand the use of cogeneration and renewables and required that regulated utilities should purchase power from a "qualifying facility" at a price equal to the price level at which utilities would generate power by building their own plant or bought power from another source, even if it did not need the power.

In 1996 FERC issued an order opening transmission links owned by all suppliers. In 1999 another FERC order encouraged the formation of regional transmission organizations by the end of 2001. At this time, all 50 states and the District of Columbia are reforming their retail electric power sectors to increase competition and reduce prices.

The Electric Utilities Industry Law (Japan), which governs the electric power industry, was amended in 1995 to encourage independent power producers. An interim report prepared in 1998 by the Committee on Basic Policy of the Electric Utility Industry Council allowed certain large consumers to choose suppliers, but full liberalization was not approved at that time. Japan is still in the process of deregulation and restructuring with the goals of encouraging the entry of new generating companies, liberalizing choices of supplies over time, and modifying economic regulations to benefit consumers through reduced tariffs.

## ANNEX B

### Nuclear Power Cooperation Between Japan and the United States

Japan's commercial reactors of the first stage were built by Westinghouse and General Electric. Mitsubishi Heavy Industries, Hitachi and Toshiba were involved in this work and quickly took over the role of principal contractors. United States and Japanese nuclear manufacturing industries have continued to cooperate throughout the development of the power reactors in Japan. At first uranium enrichment service was supplied by the United States government, and later on by a US company, USEC Inc., and also by a French company, Eurodif. In May 1999, USEC Inc. announced the signing of new long-term supply contracts with Tokyo Electric Power Company, Inc. and Tohoku Electric Power Company, Inc. USEC now has similar long-term agreements with ten electric utilities in Japan, which have nuclear power facilities.

In 1995, PNC (now JNC) signed a new nuclear technology exchange agreement with the United States Department of Energy on life extension, decommissioning of reactors and advanced types of reactors. The agreement did not include fuel cycle technology and fast breeder reactors. In February 2000, Japan, the United States and 7 other countries issued a joint statement agreeing to pursue Generation IV nuclear power systems "as a potential energy option for the next generation." These Generation IV reactors are to be economically competitive, proliferation resistant, and offer improved safety and waste management features.

The United States Nuclear Regulatory Commission is also involved in cooperative research on safety. The technology areas being studied include: thermal hydraulic experiments including code applications and maintenance; nuclear fuels research; handling severe accidents; containment testing; dry cask fuel storage and transport; and risk analysis.

The Department of Energy has also signed agreements with the Japan Atomic Energy Research Institute and other Japanese institutions in the field of nuclear research and development. Agreements have also been signed on R&D for coal use and photoconversion and photosynthesis.

## Bibliography

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1997), *An Appropriate Role for Nuclear Energy in Asia's Power Sector*, Washington, DC.

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1997), *An Appropriate Role for Nuclear Energy in Asia's Power Sector*, Tokyo. (in Japanese)

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1999), *An Appropriate Role for Nuclear Power in Meeting Global Energy Needs*, Washington, DC.

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1999), *An Appropriate Role for Nuclear Power in Meeting Global Energy Needs*, Tokyo. (in Japanese)

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1993), *Basic Concepts for the Development of Energy Policies for Russia and Ukraine: A U.S.-Japanese-Russian-Ukrainian Cooperative Approach*, Washington, DC.

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1993), *Basic Concepts for the Development of Energy Policies for Russia and Ukraine: A U.S.-Japanese-Russian-Ukrainian Cooperative Approach*, Tokyo. (in Japanese).

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1995), *Cooperative Russian-Ukrainian-Japanese –U.S. Recommendations on Energy Pricing, Taxation, and Investment for the Russian Federation*, Washington, DC.

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1995), *Cooperative Russian-Ukrainian-Japanese –U.S. Recommendations on Energy Pricing, Taxation, and Investment for the Russian Federation*, Tokyo. (in Japanese)

Atlantic Council of the United States, Committee for Energy Policy Promotion. (1991), *Joint Conclusions and Recommendations of the U.S.-Japan Energy and Environmental Project*, Tokyo. (in Japanese)

Atlantic Council of the United States. (1992), *Energy Technology Cooperation for Sustainable Economic Development*, Washington, DC.

Atlantic Council of the United States. (1976), *Nuclear Fuels Policy*, Washington, DC.

Atlantic Council of the United States. (1992), *US Energy Imperatives for the 1990s*, University Press of America.

Board on Sustainable Development. National Research Council. (1999), *Our Common Journey, A Transition Toward Sustainability*, National Academy Press.

ChinaOnline (2000)

[http://www.chinaonline.com/commentary\\_analysis/economics/currentnews/secure/c000327energy-s.asap](http://www.chinaonline.com/commentary_analysis/economics/currentnews/secure/c000327energy-s.asap)

Committee for Energy Policy Promotion. (1999), *The U.S.-Japan Energy Policy Dialogue, Hawaii Meeting Report*, Tokyo. (in Japanese)

Committee for Energy Policy Promotion. (1998), *The U.S.-Japan Energy Policy Dialogue, Fuji Meeting Report*, Tokyo. (in Japanese)

Committee for Energy Policy Promotion. (1996), *The U.S.-Japan Energy Policy Dialogue, Maui Meeting Report*, Tokyo. (in Japanese)

Committee for Energy Policy Promotion. (1995), *The U.S.-Japan Energy Policy Dialogue, Washington, D.C. Meeting Report*, Tokyo. (in Japanese)

Department of Energy. (2000), "US and Eight Countries Issue Joint Statement on Generation IV Nuclear Power Systems," *DOE News*, February 10, 2000.

Energy Information Administration. (1999), Regional Overview: Asia-Pacific Economic Cooperation (APEC), <http://www.eia.doe.gov/emeu/cabs/apec.html>

International Energy Agency. (1999), *Energy Policies of IEA Countries. Japan 1999 Review*, 1999.

Jacoby, Neil H. (1974), *Multinational Oil*, Macmillan Publishing Co., New York.

Martin, W.F, Imai, R. and Steeg, H. (1996), September 1996 *Maintaining Energy Security I(?) the Global Context*. Trilateral Commission.

Masters, RF. (1997), *Nuclear Engineering International*, March 1997 Datafile: Japan.

Nautilus Institute and Center for Global Communications, Energy, Environmental and Security in Northeast Asia, (1999), Defining a US-Japan Partnership for Regional Comprehensive Security. [www.nautilus.org](http://www.nautilus.org) December 1999.

Neureiter, N.P., and Imura, Hiroo, *US-Japan Dialogue on the Role of Science and Technology in Society Into the New Millennium*, May 2, 2000.

Office of Science and Technology Policy. (1999), *US and Japan to Explore the Role of Science and Technology in Society into the New Millennium*, April 4, 1999.

The President's Committee of Advisors on Science and Technology (1999), *Powerful Partnerships, The Federal Role in International Cooperation on Energy Innovation*. June 1999.

The White House, Office of the Press Secretary (1999), *US- Japan Cooperation in Science and Technology and the Environment*, May 3, 1999.

US Department of State. (1999), *Fact Sheet, US - Japan Common Agenda*, March 5, 1999.

United States Embassy. (2000), *Joint Press Statement on the US-Japan Common Agenda for Cooperation in Global Perspective*, February 29, 2000.

Yergin, Daniel. (1991), *The Prize*, Simon and Schuster, New York.