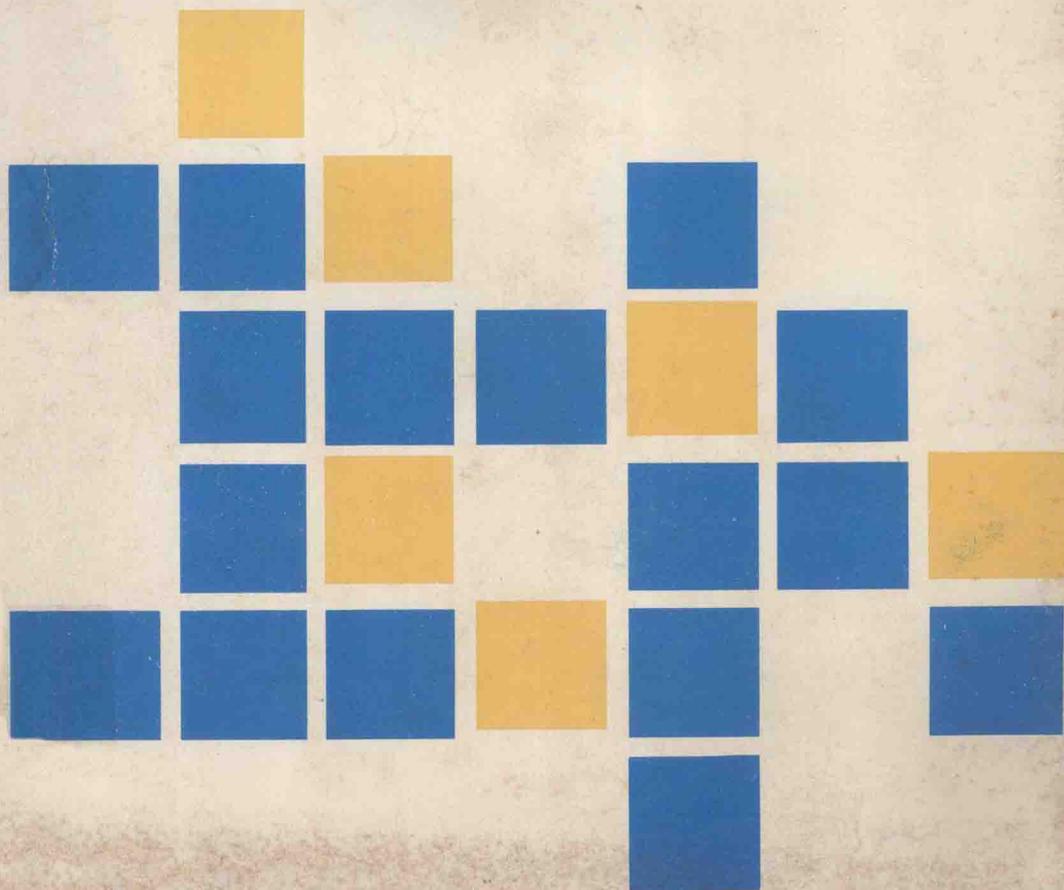




INSTITUTE OF EAST ASIAN STUDIES
UNIVERSITY OF CALIFORNIA • BERKELEY

The Politics of Japan's Energy Strategy

Ronald A. Morse, Editor



The Politics of
Japan's Energy Strategy
Resources—Diplomacy—Security

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Some deeper understanding of the energy scene is of crucial importance to U.S. scholars and policymakers, because there are several areas of important (and not always very friendly) interaction between the U.S. and Japan as regards energy questions. For one thing, we are competitors in a rapidly changing world oil market. Only a few years ago, oil imports to Japan were handled via third-party sales by the international oil companies, most of which are U.S.-based. As a result of changes stimulated by the Iranian revolution, these arrangements were terminated or drastically curtailed; Japanese trading organizations and oil companies, with substantial involvement by MITI, were forced into oil markets in order to cover the loss. The result has been a wholly different set of relationships between Japan, the world market, and other consuming nations. Moreover, Japanese foreign policy with regard to the Middle East is strongly influenced by the desire to maintain healthy commercial relations with oil-exporters, and issues of joint military security cannot be separated from the perceptions and concerns that motivate Japanese oil policy.

As if U.S.-Japan relations were not tangled enough on the oil front, we, along with a host of other nations, are involved in a complex set of international emergency planning schemes organized under the aegis of the International Energy Agency. The success of U.S. policy with regard to the IEA must depend on a clear understanding of the Japanese perceptions of the IEA, and of other mechanisms that might be used to moderate oil shock.

Nuclear policy is another area where there are close and complex relations between our two countries. Japan has been a customer for U.S. technology and fuel cycle services, and has been caught up in the American policy with regard to nonproliferation and the associated attempts to control trade in sensitive materials and technologies. According to many Japanese observers, events in the U.S.—including the shifting policies regarding nonproliferation and the events surrounding the Three Mile Island accident—have a substantial effect on the ability of Japanese authorities to carry out the current government and industry policy with regard to nuclear power development.

Yet another point of interaction, and not always a happy one, is in Japan-U.S. cooperation on energy research and development. As a result of an initiative by Prime Minister Fukuda in May 1978, there has been a program of joint activities in the areas of fusion, synthetic fuels, and solar power. These cooperative agreements have been affected by the drastic shift in government priorities and expenditure patterns brought about by the Reagan Administration; major programs appear likely to be canceled, much to the dismay of many Japanese involved in this work—both from the technical and the policy perspective.

Because of the language barrier and a dearth of serious scholarship on Japanese institutions, politics, and public viewpoints, we in the U.S.

lack in-depth knowledge that is needed to inform discussions of long-term oil policy and preparation for short-term emergencies, nuclear issues, and R&D cooperation. Nor is this a one-way street. It is important for Japanese scholars, industry, and government officials to read what is being written about Japan and the United States and begin a flow of correction about those matters which we may misperceive. And there should be a flow in the other direction: with Japanese scholars studying and writing about the U.S. energy scene, and receiving comments and criticism from the U.S. side about Japanese impressions of what drives U.S. actions.

No one book can fill such a wide gap, but it is encouraging to have such a good offering as a beginning, and one may hope that it is the start of a continuing flow of research and scholarly writing about the Japanese energy sector. We have every reason to expect that in the next twenty years world energy will be as great a source of international stress as it has been in the last eight. This is a world where “surprise” about a country as important as Japan can prove very costly to all of us.

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Cambridge, Mass.
July 1981

Editor's Preface

This book has been compiled, at least in part, to fill what we consider an important gap in the available information on Japan's energy policies, strategies, and objectives. This is an important subject, and it deserves more serious treatment than it has received to date. All of the chapters here are by experts with a special knowledge of and interest in Japan. More importantly, we have a special interest in the foreign policy implications of Japan's energy strategies. This perspective is reflected in the various chapters, each of which attempts to link the domestic Japanese policy process to the broader international energy context. The complexities of the domestic public policy process in Japan are examined in detail. The authors generally agree that Japan has been somewhat less successful in the energy area than is generally perceived. Indeed, read carefully, the book suggests that opportunities for cooperation and coordination may have been lost because of the priorities of Japanese energy policies.

The chapters, as they appear here, are revised versions of papers prepared for a panel at the annual convention of the Association of Asian Studies, held in Toronto, Canada, in March 1981. The essay "Japan's Energy Policies and Options" has been added to give the general reader the information necessary to fully understand the more specialized chapters. The basic intention of the volume is to stimulate a more meaningful dialogue on the interrelationships between Japan's energy strategies and the global energy scene.

Japan, as we know, is not unique in having had difficulty in getting its energy policies in order. To date, no major energy importing nation has come up with an effective strategy for managing present high energy costs. Japan, as one of these nations, is naturally interested in obtaining secure and reliable energy supplies at reasonable prices. How Japan goes about accomplishing its future energy goals will also have an impact on the

availability of world energy supplies and the stability of the international economic order. It was with these and other issues in mind that we have put together what we consider a thoughtful but critical overview of the energy situation in Japan.

Energy policies change quickly, and data are always sensitive to time. Because of the special efforts provided by the Institute of East Asian Studies at Berkeley, it required only four months to make this volume available to the public. This cooperation and the assistance of many others have been greatly appreciated. While everyone cannot be mentioned individually, I would especially like to thank Guy Caruso, John Despres, Mike Gaffen, Jeffrey Hartman, Lucian Pugliaresi, and Robert M. Weiss, all of the Department of Energy. Professor Henry Rowen of Stanford University and Norio Tanaka of the Institute for Energy Economics were also cooperative at critical times. To the many others who helped make the volume possible, we all express our sincere thanks.

Ronald A. Morse

Washington, D.C.

July 1981

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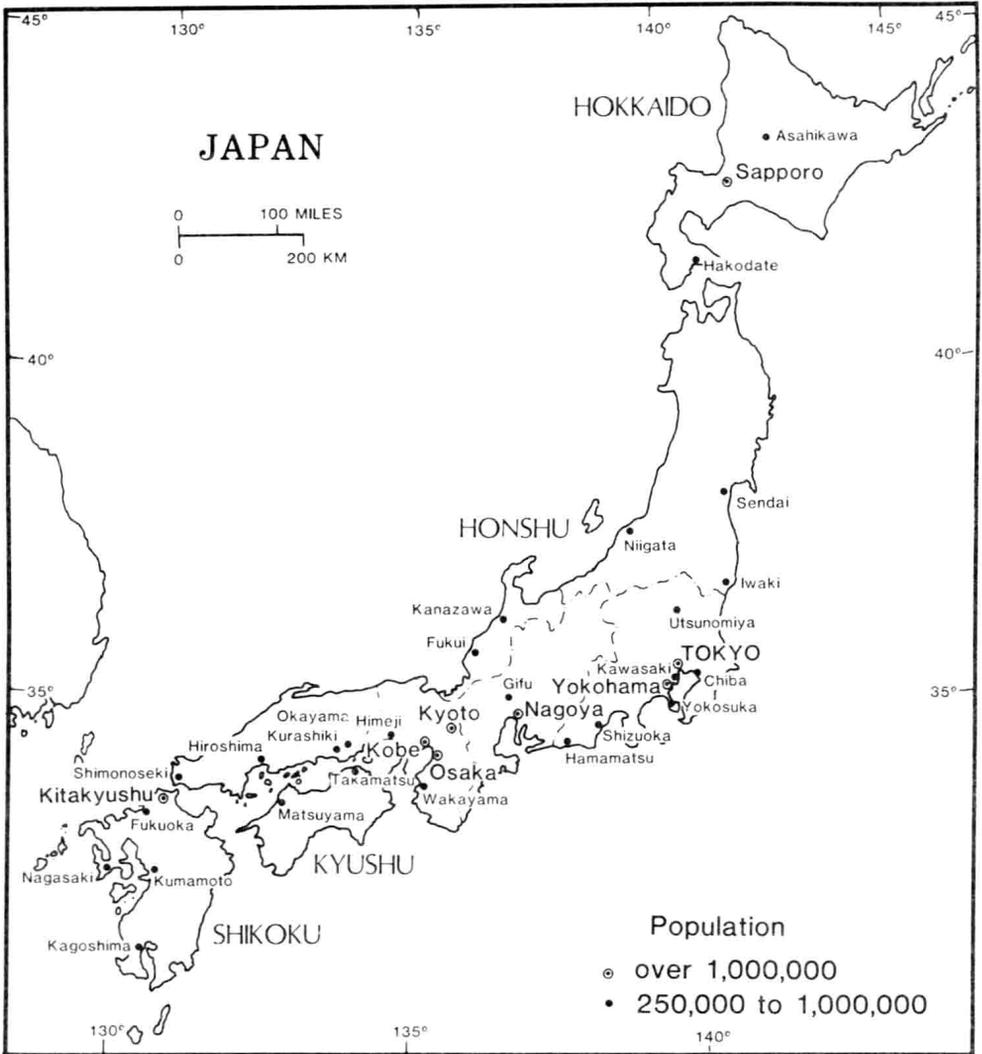
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Introduction: Japan's Energy Policies and Options

Ronald A. Morse

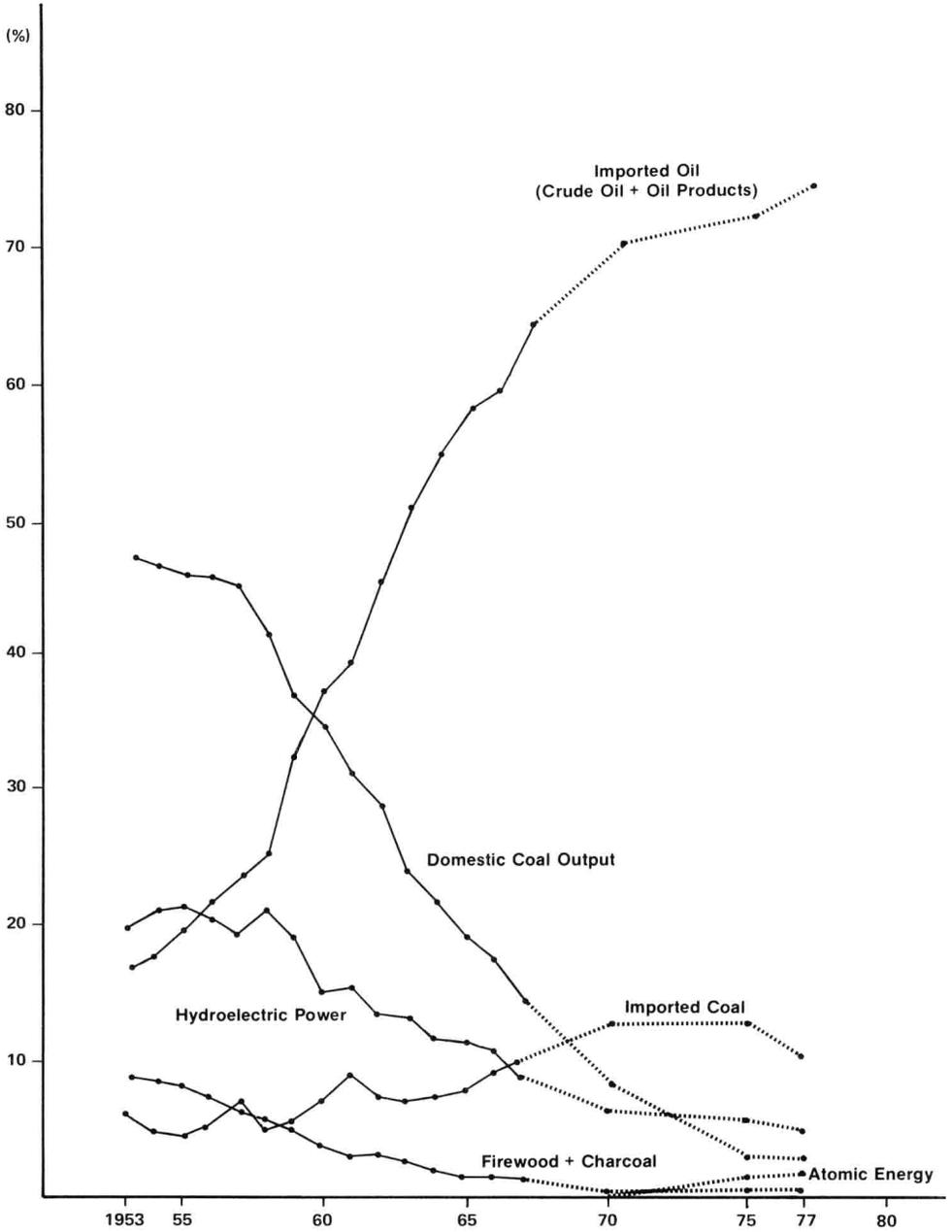
Japan has moved into the decade of the 1980s convinced that effective government-business cooperation to lower Japan's energy demand and diversify its sources of energy supply will be the only way to ensure the nation's continued economic survival and prosperity. The essays in this volume explore Japan's energy strategy, assess the domestic economic and political costs of these decisions, and examine the implications of Japan's policies for the world in economic and strategic terms.¹

Japan's national energy policy took a dramatic turn with the 1973-74 oil crisis. The new policy, which involves greater government involvement in oil and other energy markets, has the following basic elements:

1. The promotion of overseas oil development and better use of potential domestic energy sources.
2. The development of short-run non-oil energy alternatives: coal, nuclear power, and liquefied natural gas (LNG).
3. The diversification of oil supply sources and the encouragement of direct and government-to-government oil deals with the producing nations.
4. The encouragement of conservation and the commercialization of new energy technologies.

¹ A number of recent publications, each with a particular perspective, have taken up the subject of Japan's energy options. In particular, see *Oil and the Atom: Issues in U.S.-Japan Energy Relations*, edited by Michael Blaker (East Asian Institute, Columbia University, 1980); *Japan and the World Energy Problem*, by Herbert I. Goodman (Stanford University Press, 1980); the *Report of the Japan-United States Economic Relations Group* (January 1980); and *U.S.-Japan Energy Relationships in the 1980s* (Policy Paper of the Atlantic Council, June 1981).

FIGURE 1
The Changing Pattern of Japanese Energy Use



SOURCE: Agency of Natural Resources and Energy, *Sōgo energy tōkei* [Energy Statistics], 1978 edition.

Table 1

ADVANCED NATIONS' ENERGY IMPORT DEPENDENCE, 1979

Country	Percent of Total Energy	Petroleum (%)	Net Oil Imports (<i>millions of barrels per day</i>)
Japan	88	99.8	5.64
Federal Republic of Germany	59	96.8	2.92
United Kingdom	13	19.1	0.38
France	76	99.0	2.44
Italy	82	98.4	2.00
Canada	Net Exporter	3.7	0.07
United States	20	42.7	7.99

5. The preparation of energy emergency-management procedures and the buildup of petroleum stockpiles to insulate Japan in the event of a major oil disruption.

These policies reflect the dominant views of Japan's ruling conservative Liberal Democratic Party, which has dominated Japanese politics for over two decades. Various aspects of Japanese party policies are examined throughout this volume as they relate to energy policy.

PETROLEUM DEPENDENCE

Japan has practically no oil or natural gas and only limited coal, geothermal, and hydropower resources. It is dependent on petroleum for 75 percent of its energy needs, and nearly three-quarters of that comes from the Persian Gulf, through the Strait of Hormuz and across thousands of miles of undefended sea-lanes. With nearly half of its imports consisting of energy, it is particularly sensitive to trends in world economic growth and fluctuations in export markets.

Japan's energy policy has been characterized by vigorous competition among importers and refiners, minimum domestic regulation, and a great deal of expediency in securing supplies vital to the national interest. By most estimates, Japan has managed its oil dependency better during the recent crisis than it did in 1973-74. During the recent crisis, wage increases were kept in line with low inflation rates, the national economy and the budget deficit were managed well, and the necessary adjustments were made for higher oil prices.

By most standards, Japan's economy handled its oil dependency well during the crises of 1973 and 1979. The reasons for this strong

Table 2

WORLD OIL PRODUCTION
(*thousands of barrels per day*)

Year	Non-OPEC		OAPEC		Non-Arab OPEC		Communist		Total World	
	Production	% Change	Production*	% Change	Production†	% Change	Production	% Change	Production	% Change
1960	8,890	—	4,480	—	4,366	—	3,342	—	21,078	—
1965	10,365	3.1/yr	8,336	16.8/yr	6,149	7.1	5,320	9.7/yr	30,170	7.4/yr
1969	13,094	6.0/yr	12,812	11.3/yr	8,348	7.9/yr	7,123	7.6/yr	41,377	8.2/yr
1970	13,796	5.4	14,223	11.0	9,087	8.9	7,917	11.1	45,023	8.8
1971	14,137	2.5	15,053	5.8	10,756	18.4	8,608	8.7	48,554	7.8
1972	14,377	1.7	16,004	6.3	11,496	6.9	9,171	6.5	51,048	5.1
1973	14,580	1.4	18,111	13.2	13,199	14.8	9,972	8.7	55,862	9.4
1974	14,251	-2.3	17,810	-1.7	13,246	0.4	10,886	9.2	56,193	0.6
1975	13,886	-2.6	16,192	-9.1	11,462	-13.5	11,794	8.3	53,334	-5.1
1976	13,990	0.7	18,800	16.1	12,511	9.2	12,554	6.4	57,855	8.5
1977	14,842	6.1	19,507	3.8	12,427	-0.7	13,109	4.4	59,885	3.5
1978	15,973	7.6	18,723	-4.0	11,753	-5.4	13,896	6.0	60,345	0.8
1979	17,148	7.4	21,325	13.9	9,987	-15.0	14,206	2.2	62,666	3.8
1980	17,601	2.6	19,569	-8.2	8,012	-19.8	14,488	2.0	59,670	-4.8

SOURCES: *The International Petroleum Encyclopedia*, 1975 and 1980; and "Worldwide Crude Oil and Gas Production," *Oil and Gas Journal*, March 2, 1981, p. 163.

*The Organization of Arab Petroleum-Exporting Countries (OAPEC) includes Abu Dhabi, Algeria, Bahrain, Egypt, Iraq, Kuwait, Libya, Neutral Zone, Qatar, Saudi Arabia, and Syria. Egypt was suspended from OAPEC in April 1979, but is included for consistency in OAPEC totals for 1979 and 1980.

†The non-Arab members of the Organization of Petroleum-Exporting Countries (OPEC) are Ecuador, Gabon, Indonesia, Iran, Nigeria, Venezuela, Dubai, and Sharjah.

performance and the prospects for adjustment to still higher energy prices in the future are examined in detail in the chapter by Peter A. Petri. The economic dimensions of the problem are staggering: in 1979, Japan paid \$33 billion for its imported oil, up sharply from \$23 billion a year earlier. But Petri shows that Japan's competitive trade position, its emerging ability to attract substantial foreign investment, and its heavy investment in new technology enabled it to adjust with unusual success during the 1970s. In turn, the diversification of Japan's exports (across products as well as country destinations) and imports will contribute to its ability to adjust, if necessary, to an even more unfavorable future environment. Still, Japan faces difficult problems in its export offensives in the United States, Europe, and the Third World.

OIL POLITICS

At its most fundamental level, the present energy problem is the availability and acquisition of oil—the issue that Martha Caldwell addresses in her chapter about trading company policy and the dilemmas of Japanese oil diplomacy. Caldwell places the history and significance of the bilateral Iran-Japan Petrochemical Project within the context of Japan's tilt toward the oil-producing states and the problems that this position has created for Tokyo's relations with the United States. This project, which figured so prominently during the Iranian crisis and the Iran-Iraq war, is symbolic of Japan's tactical approach on oil issues. It also illustrates the relationship between business and government in Japan's Middle East policies.

It was not until 1963 that Japan's oil imports reached the level of 50 percent of its total energy needs. This increased oil dependence was part of a worldwide historical process of adaptation to changing energy availability and supply costs. Until the 1950s, Japan was nearly self-sufficient in energy, relying primarily on coal, hydropower, firewood, and charcoal. It was only in the 1960s, with the rapid rise in the production of synthetics and the dramatic rise of energy consumption that oil came to dominate Japanese energy use.

Along with this dependence on oil and the omnipresence of oil and oil by-products in the industrial process, the number of interest groups and government agencies involved in the energy policy process has increased dramatically. The Ministry of International Trade and Industry (MITI), traditionally involved directly in domestic market policy, has found it necessary to take on a larger international role in world energy markets. As oil costs have taken on major importance for the health of the economy, the Ministry of Finance has become more involved in energy budgeting. Fuel economy is managed by the Ministry of Transportation. Nuclear policy, as noted in the chapters by Suttmeier and Samuels, goes