Future Direction of Japan's En

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The sharp increase in energy consumption resulting from the use of fossil fuels after the Industrial Revolution brought economic development and higher living standards to the industrially advanced countries. Japan's high economic growth after World War II was typical of the economic prosperity made possible by the mass consumption of low-cost energy. As a result of the rapid switchover to petroleum, which was inexpensive in those days, Japan's energy consumption more than quadrupled in the 14 years from fiscal 1960 to fiscal 1973. The country's energy policy in those days was geared to bringing down the cost of energy by leaning heavily on inexpensive petroleum.

This situation changed drastically as a result of the first oil crisis in 1973. Although there was a time when the situation eased temporarily, the overall trend was a tightening of the global oil supply and demand, and the crude oil price continued to soar. The official posted price of Arabian Light, which was about $2 per barrel before the first oil crisis, rose to $34 in October 1980.

Of all countries, Japan was hit hardest by the drastic change in the oil price because of her excessive dependence on petroleum, particularly Middle East oil. (The rate of Japan's dependence on petroleum against all primary energy sources in fiscal 1973 was 78% and her dependence on Middle East oil, 66%). Accordingly, Japan attached top priority in her energy policy to ensuring energy security by vigorously reducing excessive dependence on oil. It implemented a comprehensive energy policy with the three-pronged target of securing a stable oil supply, promoting the development and introduction of alternative energy sources, and accelerating energy conservation.

However, the economics of energy have begun to change greatly again in recent years.

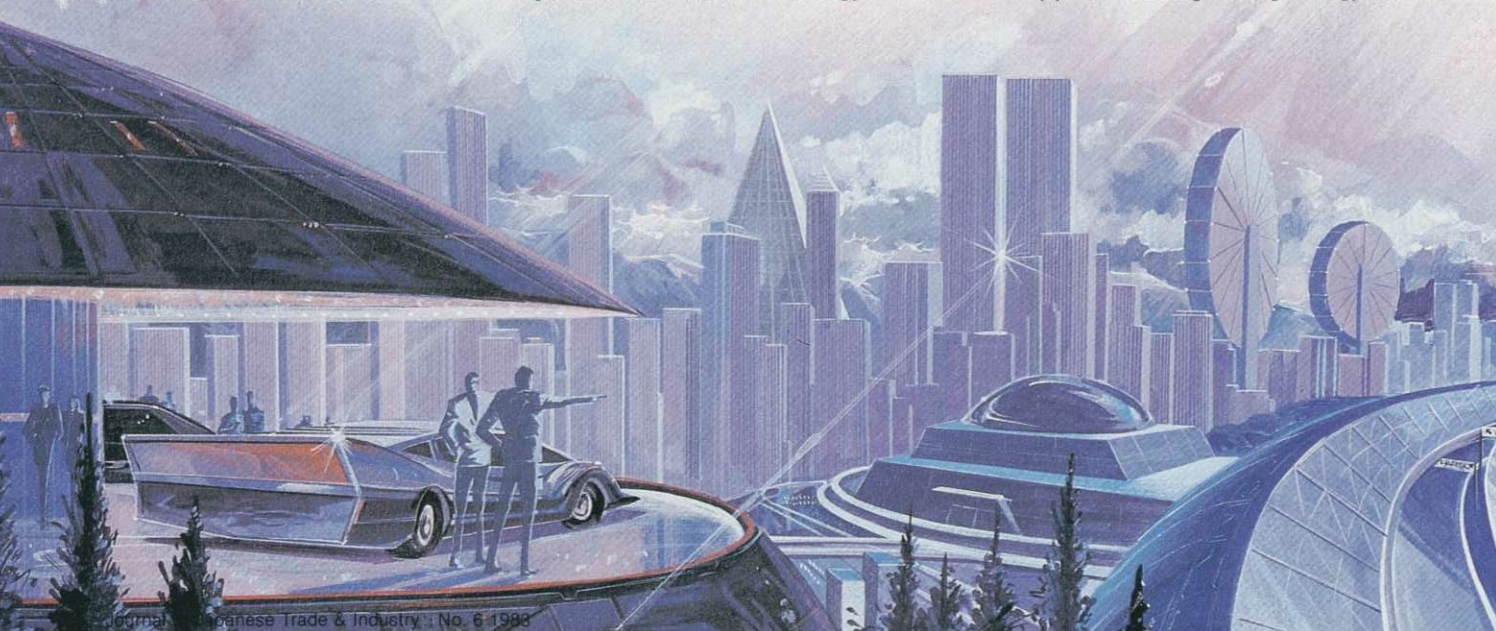
In the past two or three years, the underlying trend of international oil supply and demand has eased. This reflects the delay in the recovery of the economy from the global recession triggered by the second oil crisis, the dramatic decrease in demand for oil resulting from progress in the global conservation of energy and the switchover from oil to alternative energy, and the increase in the volume of crude oil produced by non-OPEC countries. On March 14, 1983, OPEC decided to reduce the bench mark oil price by $5 per barrel, the first reduction since the cartel's foundation in September 1960.

In Japan, the slowdown in the growth rate for energy demand has become conspicuous. The average annual growth in demand for energy was about 11% before the first oil crisis, but it fell to only about 3% after the crisis. In the past three years, following the second oil crisis, Japan's energy consumption decreased more than 3% annually despite the country's annual economic growth of over 3%.

On the supply side, the diversification of energy sources has been proceeding through the diversification of electric power sources and the switchover from petroleum to alternative energy. As a result, Japan's rate of dependence on petroleum against total primary energy sources dropped steadily from 78% in fiscal 1973 to 62% in fiscal 1982. Another conspicuous change is that interest in the cost of energy has become extremely keen, both in industry and among the public, because the sharp rise in the cost has had far-reaching and scathing effects on the Japanese economy and society. Among these, the output of aluminum in fiscal 1982 was about 70% less than in fiscal 1973, while the output of petrochemicals (ethylene) was about 30% less. Consequently, reducing the cost of energy has become a necessity.

With these changes in mind, the Advisory Committee for Energy (Chairman, Hiromi Arisawa), an advisory organ to the Minister of International Trade and Industry, concluded that it was necessary to conduct a thorough review of Japan's energy policy and its guideline, the Long-Term Energy Supply-Demand Outlook. The joint study group (chaired by Jiro Enjoji) of the Basic Policy Sectional Meeting of the Basic Problems Subcommittee and Supply and Demand Subcommittee was formed in April 1983 to review the energy policy and its guideline in accordance with the following basic perceptions of the problem:

(1) Estimating the future demand for energy;
(2) Reducing the energy cost;
(3) Changing the energy supply structure, including the speed at which to reduce Japan's dependence on oil;
(4) Establishing strong energy-related



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industries which can cope with changes in the situation.

These subjects were debated at length by academics and specialists, and on the basis of these discussions the Drafting Subcommittee drew up its report. And at a joint study group meeting of the Advisory Committee for Energy, held on August 22, 1983, an official report, entitled "Long-Term Energy Supply-Demand Outlook and Comprehensive Review of Energy Policy," was compiled.

For Japan, whose energy supply structure is fragile by world standards, the absolute necessity of diversifying supply sources, with a view to reducing dependence on petroleum, remains basically unchanged. However, there will be no change, for a long time to come, in the country's dependence on petroleum for the greater portion of its energy supply. This is because the development and introduction of alternative energy involve a long lead time and great risk. In addition, the many purposes for which petroleum can be used lend elasticity to Japan's energy supply-demand structure, and the intrinsic characteristics of petroleum preclude substitutes for some of its uses. Considering that the price of energy has far-reaching effects on industrial activities and on people's lives, care must be taken, or over-emphasis on energy security will trigger an excessive rise in its cost. It is essential to devise the best energy supply mix, by taking into full consideration the present role of petroleum and other conventional energy sources, and by conducting a comprehensive evaluation of such prevailing factors as the price of energy, the energy needs of consumers, the volume of supply available, the stability of supply, and the lead time required to introduce alternative energy.

I helped draft the report with these points in mind. It was approved on August 22, and is generally in line with the above perceptions.

In other words, it states that the aim of Japan's energy policy should be to ensure a stable supply of energy both in terms of quantity and price to meet actual demand. For this, the country should try, firstly, to establish security of energy supply; secondly, to reduce the energy cost; and thirdly, to establish the best possible energy supply-demand structure with a complete balance maintained between security and cost.

On the basis of this fundamental thinking, the report says, Japan should promote systematically and steadily the development and introduction of alternative sources of energy. As regards individual alternative energy sources, particularly new ones, the report urges a comprehensive evaluation of each of these, with respect to supply security and economic feasibility, a definition of the role and position of each source, and a policy of selective adoption.

Regarding petroleum, the report says that the target of state stockpiling (30 million kiloliters) must be retained, but it recommends a switchover from relatively costly offshore tanker storage to inland storage, and calls for flexible stockpiling policies such as postponing the completion date of the state-operated stockpiling terminal, in order to reduce the energy cost.

As stated, judging from the current energy situation and the socio-economic situation pertaining to energy, it is extremely important, for the stable development of the Japanese and world economies, to pursue a well-balanced energy policy, while coping promptly with new developments.

I sincerely and strongly hope that the report published by the Advisory Committee for Energy will obtain the understanding not only of the Japanese government and the public but also of international society, and that it will serve as a guideline for overcoming future energy problems. I hope that an energy policy in tune with the purport of this report will be implemented promptly and smoothly. ●

(Note) Inquiries regarding the report compiled by the Advisory Committee for Energy should be addressed to the Natural Resources and Energy Agency of the Ministry of International Trade and Industry (3-1, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo 100, Japan), which served as the Committee's secretariat.

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