

What the World Should Learn from the Oil Crisis 50 Years Ago ? (3): Complicated Energy Security Issue

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In the year 2023, which marks the 50th anniversary of the first oil crisis amid a new energy crisis escalated by the situation in Ukraine, it is significant for the world to question what it should learn from experiences and lessons a half century ago. Part 3 of the series under this awareness takes up the complication of the energy security issue.

Unquestionably, the first oil crisis was caused by the oil market geopolitics that was shaking the world. As crude oil prices shot up due to the fourth Middle East war and the Arab oil embargo, serious concern about crude oil supply interruption shook major oil-consuming countries, rattling the world economy and international politics. The price spikes and supply insecurity for oil as the world's largest internationally traded commodity triggered the global crisis. The crisis was about oil, which was then far more dominant than other energy sources. Oil then accounted for as much as 49% of the global primary energy supply. Japan depended on oil for more than 70% of its energy supply. For this reason, the oil crisis was a grave issue rattling the entire energy market.

Energy security policies or strategies that Japan and other major oil-consuming countries implemented and enhanced in response to the crisis were basically designed for oil supply security. To secure stable oil supply, they aimed to (1) reduce their dependence on oil imports, (2) diversify oil imports, (3) enhance their relations with oil-producing countries and (4) increase oil stockpiles. Measures to reduce dependence on oil imports included the enhancement of energy efficiency and conservation for reducing oil consumption, the promotion of domestic oil development and the development of alternative energy sources (such as nuclear and liquefied natural gas). To diversify oil imports, oil-consuming countries promoted non-OPEC oil development as well as overseas oil development supported by government or government-related institutions and imported crude oil through government-to-government negotiations. To enhance relations with oil-producing countries, oil-consuming countries promoted economic cooperation with Middle Eastern and other major oil-producing countries, attempting to secure stable oil supply through the enhancement of peacetime friendly relations. To increase oil stockpiles in preparation for emergencies that could arise irrespective of the first to third policies, oil-consuming countries adopted national and private stockpiles and other methods to pile up oil reserves far beyond levels required for oil refiners' usual operations.

The International Energy Agency was created as an international framework to complement national oil supply security policies and secure cooperation mainly between developed oil-consuming countries. The IEA is an international organization born in response to the oil crisis, taking initiatives to keep the international oil market stable on behalf of oil-consuming countries. Under these initiatives, the IEA has confronted, and some other time cooperated, with oil-producing countries and the Organization of the Petroleum Exporting Countries as their representative. While IEA initiatives have

become diverse, the agency's biggest objective has been the enhancement of international oil supply security.

When thinking about the present and future energy security in consideration of the abovementioned points, we find that the energy security issue has been extremely complicated over the past half century.

First, the ongoing international energy market destabilization features price spikes and supply insecurity for not only oil but also other various energy sources. In particular, we must pay attention to natural gas and LNG, which are in a critical situation. Symbolizing the critical situation were unusual European gas price spikes seen last August, when the benchmark European gas price soared to some \$100 per million British thermal units, close to \$600 per barrel of oil equivalent. The spikes came as a strong market response to the concern that a substantial decrease in Russian pipeline gas supply would trigger serious gas shortages towards winter in Europe, which depends heavily on Russian gas imports. In any energy crisis, physical supply shortages have greater impacts than price spikes and become a strong driver of energy security policy promotion, as seen throughout history.

In fact, Europe's desperate energy security enhancement initiatives, symbolized by the "REPowerEU" Plan, represented an immediate response to the natural gas crisis. The desperate initiatives to secure a stable gas supply for Europe have exerted negative impacts on the international energy market stability. This point reminds us of the problem seen during the oil crisis. It is also pointed out that gas price spikes impede gas consumption in low-income developing countries and lead to increases in coal consumption and CO₂ emissions. The gas/LNG crisis is not limited to Europe but has spread to other regions in various ways. Europe is also promoting initiatives to promote energy efficiency and renewable and nuclear energy to reduce gas use, but it is impossible to substitute renewable and nuclear energy for Russian gas immediately. For the immediate future, Europe is required to expand LNG supply to stabilize the gas market. Contradictorily, however, Europe is not necessarily positive about promoting LNG investment, complicating the gas issue. As for oil, Saudi Arabia and other oil-producing countries have surplus production capacity, with oil reserves piled up in oil-consuming countries. In contrast, no surplus production capacity exists for natural gas or LNG. It is difficult to stockpile LNG. How to enhance response to emergencies is a major issue for gas.

Second, we must not forget that a stable electricity supply is growing even more important for energy security as electrification makes progress. While naturally intermittent renewable energy supply expands its share of power generation, surplus electricity supply capacity has declined substantially under rationalization and cost reduction pressure through electricity market deregulation. Regarding investment required for securing supply, various challenges are emerging. Growing natural disasters and cybersecurity threats are complicating the stable electricity supply issue. While electrification accelerates amid the enhancement of decarbonization initiatives in all countries, how to secure stable electricity supply, including how to procure fuels for power generation, has become an urgent great challenge.

Third, economic security has become even more important amid the division of the world and growing geopolitical tensions, leading to new energy security issues. Among them is a critical minerals issue. As the world accelerates energy transition to enhance decarbonization and energy security, demand for critical minerals will increase dramatically. Some of them are expected to face the tightening supply-demand balance and price spikes around 2030 or earlier. Another problem is that some critical minerals and their production and processing capacity are unevenly distributed in the

world, concentrating in certain countries like China. Excessive dependence on certain supply sources for key resources has been highlighted as a problem through the oil crisis and the Ukraine crisis. While considering this and other issues, the world must explore an optimum path to enhance energy security comprehensively and promote decarbonization.

The world is now required to enhance initiatives to cope with the complicated energy security issue while learning lessons from the current Ukraine crisis and the oil crisis 50 years ago.

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