

Viewpoint for Considering Energy Problems: Market-State Relationship

Ken Koyama, PhD

Chief Economist, Managing Director

The Institute of Energy Economics, Japan

Energy sources vary from crude oil, petroleum products and gas to coal and electricity. As far as each source is an economic good, a market exists with market transactions conducted in each phase of its development, production, transportation, distribution, sales and consumption. Therefore, it is very important for each market to fully work to demonstrate its functional utility including optimum resource allocation through the pricing mechanism.

If the market works fully, all market participants from consumers to producers may enjoy great benefits including utility maximization. The history and realities, including the failure of a planned economy, undoubtedly indicate that it is important to make best use of market mechanisms.

At the same time, however, it may be important to give considerations to the following points in analyzing the actual world of energy.

First, energy is indispensable and necessary for civilian life and economic activities. Energy may sometimes be emphasized as a military or strategic good. In this sense, it is very significant to acquire necessary and sufficient quantity of energy at reasonable prices. This is a simple definition of energy security. In a nation state, its national government is responsible for the well-being and good order of citizens as components of the state and is thus often required to ensure energy security.

Second, the price elasticity of energy supply and demand is relatively lower particularly over a short term because energy is an indispensable good with some limits imposed on its substitution. Therefore, prices tend to substantially fluctuate when market supply/demand conditions change, in particular in the short term. This tendency has tended to be accelerated by the growing linkage between energy and financial markets (the growing influence of money factors) over recent years. Wild energy price fluctuations can trigger economic dislocation by rapidly and substantially changing income distribution among various market participants such as consumers and producers.

At a national level, substantial energy price fluctuations shake national economic conditions, bring about large-scale income transfers (including energy importing countries' increased payments and energy exporting countries' increased income) and increase the strategic value of energy in line with greater needs for securing energy to affect the international balance of power. In this sense, therefore, it is natural for national governments to become sensitive to energy problems.

If without fears or concerns on present and future energy market stability, national governments may not grow sensitive to energy problems. In the present energy market, however, destabilizing factors are increasing, including growing geopolitical risks, the rise of emerging countries and their substantial demand expansion, and growingly uncertain investment environments. Under such situation, the energy market now sees various national interests conflicting with each other over such issues as energy security and global warming. In another fact, giant state-run corporations representing nation states have had great presence in the actual energy market. In a sense, countries or national governments themselves are major energy market players.

Furthermore, economy of scale can often easily work in the energy market. Giant market players frequently emerge and exist, for example, in a form of natural monopoly. In such case, national governments are expected to address large-scale players' market dominance or their market power. It is also important that national governments are naturally held responsible in a sense for establishing and enforcing safety standards for the energy production, transportation and consumption phases.

In summary, given today's energy market realities, states or governments are required to play a diversity of important roles. As a matter of course, this does not mean that government roles should have to be left to expand. Inappropriate or excess state or government intervention can distort the market. "Government failures" have been seen frequently. At the same time, however, it may be unrealistic to expect that energy security will be ensured with no problems caused if the market is completely left untouched.

How to interpret the market-state relationship regarding energy problems has been debated globally over a long time. In my view, the pendulum has swung between the market and the state depending on market environments, worldviews and epoch-making events. If based on any unbalanced argument where the pendulum swings too much in either direction, however, any choice made may bring about great problems for the present and future. Every country must have a strategy to secure the best balance between the market and the state, based on its national situation, existing resources, industrial reality, technological capacity, international relations and other conditions.