

The Danger of Rushing the Separation Between Power Generation and Power Transmission

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Since the Fukushima Nuclear Power Plant accident, media and government have rekindled the debate on the separation of power generation and transmission. Such a separation, however, rests on the availability of excess power generation capacity, and has the purpose of promoting competition in the domain of power generation. Since excess capacity has dried up and continuing power shortages are a concern, Japan is hardly in a position to be debating this matter.

In spite of the reality we face, the reason that the debate on separation of power generation and transmission has resurfaced seems to be quite political. Public opinion may be following this train of thought: "The power companies, including TEPCO, have not disclosed information detrimental to themselves and advanced nuclear power in an insular manner. That kind of attitude must be changed." Or perhaps this one: "TEPCO must dispose of any and all assets to compensate for damages associated with the nuclear power accident." In these contexts, I sense the ruminations of politicians, who consider the debate on separation of power generation and transmission well received among the voting public, since it means chopping up the mammoth power companies.

Actually, we should study the pros and cons of separating generation and transmission calmly, away from these views. First of all, many misunderstandings surround the separation of power generation and power transmission. That, in itself, is a problem.

Some people take issue with the lack of openness in the transmission grids of the power companies. Actually, this view profoundly misunderstands the facts. In Japan, consigned transmission tariffs are already subject to regulation. The basis for tariff calculation is disclosed in advance, and the accounting associated with consigned transmission is conducted separately and secured with the public release of audited revenue-expense performance reports. By separating the function and its accounting, the transmission grid is accessible fairly to new entrants. This fairness, furthermore, is secured through oversight by a third-party agency.

Consigned transmission is also noted to be relatively expensive. But this is natural, considering the high cost of laying transmission lines for reasons related to Japan's topography. In a discussion about separation between generation and transmission, and liberalization, however, this point is misdirected.

The following seems like a sensible opinion: "The separation between power generation and transmission should promote the introduction of renewable energy." But separation between generation and transmission creates a means to promote competition among power sources. Accelerated penetration of renewable energy, which has no price competitiveness, simply cannot happen.

A public agency in some form or other frequently is involved in the ultimate supply responsibility for goods and services related to our social infrastructure. In finance, for instance, the Bank of Japan exists as the ultimate lender, and the government directly owns the tanks and stockpiles crude oil for petroleum. Electricity represents an absolute daily necessity, whose disrupted supply leads to serious societal impact—an important point to remember. In fact, supply and demand must be matched for electricity to avoid a likelihood of widespread outages. Consequently, someone must bear the supply responsibility in order to avoid any disruptive incident. Electricity, however, is inherently difficult to store, unlike petroleum. In order to deliver a stable supply, capacity is in excess, except for peak demand times. But a power-generation company exposed to competitive market dynamics under separation of generation and transmission has no incentive to own excess capacity. Who will bear the responsibility and what kind of cost mechanism should be fulfilled for stable supply then? Here is the greatest weakness in separation of power generation and transmission. Designing policy to address this issue is very difficult.

In the future, the need for wide-range power sharing between the power companies will probably increase as the tight supply for electricity, triggered by nuclear power plants that will either lose their commissions or drop in their operating rates, sets in for the long term. In order to promote the introduction of renewable energy, increasing transmission lines becomes the large challenge to electric power policy. Vital issues for study must look at ways to revisit the maintenance, operating policy, and main operating entity of an improved transmission grid.

In addition, a big task for resource-less Japan is reducing fuel procurement costs. Rather than weakening the bargaining ability of individual power companies through separation of generation and transmission, increasing their bargaining ability is important by enlarging the scale of the purchasers. Several European nations that pushed through separation of power generation and transmission have a high level of energy self-sufficiency, and conditions that are quite different from Japan. Furthermore, the results in the U.S. and Europe hardly show sound success either in separation of power generation and transmission or in liberalization of electric power. In some cases, liberalization has eased the passing on of costs to pricing. Pinching lower income brackets has resulted in political debates, and stable supply has been affected, because appropriate power source formations could not be achieved.

Any debate on separation of power generation and transmission or power liberalization for Japan is, frankly, a lap behind in terms of earlier global activity. Liberalization set forth in the 1990s in Europe and the U.S. when fossil fuel prices stagnated, excess capacity abounded, and global warming remained a non-issue. Conditions today are quite different, and the policy's purpose no longer fits prior conditions. The importance of stable supply has become more critical, too. Circumstances unique to the energy domain do not allow the matter to be simply economics, and do require a long-term perspective.

Leading cases in other countries and the existing organization and situation in Japan should be studied carefully, and considered. If the separation of power generation and transmission moves forward under political overtones without deeper discussions over policy, we may find our energy policy in an irretrievable situation.