IssuesLetter

Breaking the Bonds of Market Power

Will restructuring result in strong effective competition, or will it simply deregulate generating companies who retain a *de facto* monopoly position? This is the most fundamental economic question confronting restructuring of the electric utility industry.

Effective competition requires paying close attention to the control and expansion of the transmission network. Because the vast majority of transmission in the US is owned and controlled by vertically integrated electric utilities, there is a legitimate concern that these firms will use their control over transmission to discourage competitors. Transmission issues are also important because transmission has the ability to either alleviate or exacerbate horizontal market power problems the tendency of markets dominated by a few suppliers to charge monopoly-like prices to their customers. Ideally, transmission would be adequate to allow any supplier access to any customer, giving customers the opportunity to shop from among a wide range of potential suppliers. On the other hand to the extent the transmission system is constrained and customers options are limited, prices will be high, and customers will be overcharged.

Where a single firm owns both generation and transmission, the firm faces some tough internal conflicts. The transmission side of the business would like to make access widely available to many competitive generation providers. But the generation business would be more profitable if access were restricted. In a restructured electricity industry, where transmission prices and profits are controlled but generation prices and profits are not regulated, the generation interests are almost certain to prevail.

Largely for this reason, in those countries where a competitive market for electricity generation has been adopted, generation and transmission are owned by separate, unaffiliated companies. In the US, a similar de-integration of utilities is probably the best way to protect customers and the marketplace. Divestiture clearly places transmission and generation under separate ownership, governed by different managers and shareholders. This eliminates the opportunity of transmission-owning utilities to make use of their ownership to interfere with operation of the competitive market.

But forcing a utility to divest is difficult and time consuming. Thus, while divestiture remains the best solution, there is another alternative that is receiving a great deal of attention. This alternative calls for the creation of a regional Independent System Operator (ISO) to operate the transmission system independently of generator interests. ISOs would be subject to regulatory oversight and would have some degree of control over the operation and perhaps, expansion of the transmission system. The question raised by the proposal is: Are ISOs a workable alternative to divestiture?

In October 1996, a number of state utility regulators drafted the following "Declaration of Independence" that calls on state and federal authorities to adopt rigorous safeguards to insure the efficient and impartial operation of the nation's electric grid. At this writing, this Declaration has been signed by 23 supporters from 11 states and the District of Columbia, and signers are continuing to recruit additional supporters.

What Does This Declaration Mean?

The Declaration focuses on two important points: the ISO's independence and the scope of its activities.

At the time the Declaration was released, most ISO proposals either had transmission owners retaining control of the ISO or control was expanded to include other entities in the regional generation supply business, such as non-utility generators, EWGs and brokers. Including these non-transmission owning suppliers helps assure a level playing field between suppliers and therefore is an improvement. Yet, as the signers of the Declaration recognized, it is not without drawbacks. The transmission network defines the market place and therefore determines the extent to which customers are able to shop around. All suppliers share a common interest in a high market price, and control over the ISO would provide an effective tool to do exactly that. To keep this from occurring, the Declaration is clear in concluding that competitive suppliers should not be allowed control the transmission mechanism.

Even where an ISO is independent, it will be ineffective unless it has adequate authority to operate and expand the transmission network as necessary to provide low-cost, reliable service. Pricing of transmission services, construction of new lines, improvements to the existing system and the overall goals for daily operation are all decisions that can have major impacts on customers and competitors. The decisions must be made consistently to meet the interests of the end consumers. Allowing the existing supplier to dominate decision making is like allowing the home team's coach to serve as the umpire.

On the level of daily operations, this means the ISO must be able to employ the transmission system to insure maximum competition among suppliers. Over the long term, the ISO needs the authority to build (or arrange to have built) new transmission facilities where the benefits to customers of increased supply and lower generating costs exceed the cost of the facilities. The construction of new transmission facilities will often be justified because it will provide customers access to new generation sources. This will result in an increase in supply and a reduction in the price of power. When the expanded transmission facilities are located in the traditional service area of a vertically integrated utility, the utility can expect to see a reduction in the price of its generation and, therefore, its profits. Clearly, it will not be in the utility's interest to support the expansion. The way to make sure decisions that benefit customers are made is to break the integrated utility's monopoly control of local transmission by allowing others to build. The ISO appears to be the best candidate to construct, or arrange to have constructed, these new facilities. In short, while the ISO may not actually own the transmission network, it needs to possess all of the attributes of ownership.

In the fall of 1996, the framers of the Declaration considered the ISO proposals under consideration to be neither independent nor to have the necessary scope of operations.

A Real-World ISO

On December 31, 1996, the New England Power Pool (NEPOOL) filed with the FERC a proposal to restructure the pool which included development of an ISO. The pool claimed its ISO proposal "has the support ofeach of the six New England state regulatory commissions." Since a number of the signatories to the Declaration were from New England states, it is interesting to

look at some of the principal features of the NEPOOL proposal. (The NEPOOL ISO is proposed to fulfill several functions beyond that of a system operator. For example it would also serve as a POOLCO, matching buyers and sellers of electricity and as a billing and disbursing agent for a variety transactions. Since these are not necessarily ISO functions, they are not included in the following summary.)

The proposed NEPOOL ISO would be a non-profit corporation headed by a ten member board of directors. The board members can neither be employees of nor have a financial interest in entities involved in the regional generation market. Initially, nine of the ten members would be appointed by the Pool, and those nine would choose the ISO CEO, who will also serve as a board member. Once underway, the board would be self-perpetuating.

The NEPOOL ISO would operate the transmission system under rules set by NEPOOL. At the same time, the ISO also has an obligation to monitor market power problems and may implement rules which address market power issues. If either the ISO or NEPOOL object to a rule promulgated by the other, there is a dispute resolution process in which the final decision rests with the FERC.

The ISO would *not* have direct authority to cause new transmission facilities to be built. It is authorized to study whether new facilities are needed and to make recommendations to NEPOOL. In principle, NEPOOL has the authority to "designate (an) entity to effect the construction" of transmission facilities, though this clearly falls short of granting the ISO authority to construct itself.

Conclusion

The "Declaration of Independence" has been a success, at least in providing a reasonable, well articulated standard by which to judge a specific ISO proposal. But perhaps the greatest success of the Declaration has been to reiterate that the true focus of electricity restructuring is not a level playing field for suppliers but a functional competitive market, accessible on fair terms, by buyers as well as sellers.

A Declaration of Independence

Why Transmission and System Operation Must Be Truly Independent from the Ownership of Generation

Efforts to restructure the electric power industry are based on the conviction that open competition in power supply will advance consumer interests better than traditional economic regulation. The objective of restructuring must be to create conditions that will allow genuine competition to thrive. The ultimate measure of success is whether competition delivers benefits to *consumers*, not just to those in the electricity business, either competitive electricity suppliers or providers of monopoly wire services.

To succeed, the restructuring process must address the inherent market power problems caused by ownership or control of the monopoly transmission system that connects competitive generators with their customers. The divergent interests of suppliers and customers are clear:

- In competitive electricity markets, all generators will benefit from high prices while customers benefit from low prices;
- In competitive markets, higher prices achieved through any action, including control of the transmission system, by any generator or group of generators, will benefit *all* generators;
- Decisions regarding transmission pricing, dispatch rules, and new investment in the transmission system can add value to generation. An unnecessarily constrained transmission system will lead to overpriced electricity and excess profits for suppliers;
- Many techniques for leveraging transmission and system operation to add value to generation assets are complex, subtle, and difficult to control through regulatory oversight.

This means that steps taken to deregulate supply could harm rather than advance consumer interests, if not paired with measures to sever suppliers' control over transmission services.

To ensure that the transmission system is operated and expanded to suit the needs of society at large rather than the narrower interest of generators, most nations implementing competition in generation have chosen to completely separate the ownership of power plants from ownership or control of transmission lines. Such separation provides a clear, workable and effective means of protection against the potential for many types of abuse.

However, many US utilities oppose divestiture of either generation or transmission assets. They offer instead to separate ownership from control, by placing control of the transmission system in an "Independent System Operator" or ISO. Unfortunately, most ISO proposals put forth to date have been seriously deficient in one or both of two key areas: (1) the scope of functions entrusted to the ISO is too limited, so it does not effectively control transmission pricing and system operation, and (2) the ISO is not truly independent.

Each ISO should have a mandate to manage and expand the portion of the nation's grid under its control so as to ensure reliability while minimizing costs. The management of the transmission system involves the exercise of hundreds of small and large decisions, many of them subjective judgment calls, involving such matters as the pricing of transmission service, construction of new lines, and operation and maintenance of the existing system. All of these decisions should be made by the ISO, subject to regulatory oversight. The transmission system should be operated and expanded so as to encourage rather than limit competitive challenges among suppliers.

Most ISO proposals fall short by giving suppliers substantial, or in some cases, majority control of the system. Independence is not achieved by simply sharing control of the transmission system among different types of suppliers. To achieve independence, ISOs should be responsible to boards that are

completely independent of suppliers. In the absence of a clear structural solution such as divestiture, we must create solutions equivalent to a non-voting "transmission trust": generating companies must cede all control of their transmission lines to the ISO; they will be entitled to fair compensation on their investment, but afforded no opportunity to influence the use of those lines.

The ISO should, in turn, be subject to appropriate regulatory oversight. This regulatory framework should strive to harmonize the interests of the ISO with those of the public: reliability and stability, low generation and transmission prices, and minimum environmental impact. Such regulation must reflect both federal and state interests, ensuring the development of regional markets while recognizing states' interests in siting, and in shaping regulatory reform to suit local concerns.

Effective regulation of regional markets and transmission systems may require creation of new regional governance mechanisms, such as regional joint boards or councils under existing or new enabling legislation. However this is accomplished, FERC, the States, and Congress must insist upon creation of ISOs that have authority to operate and improve regional transmission systems, and that are truly independent from the owners of generation resources. Only when transmission constraints cannot be used to leverage above-market value from generation assets will the public's interests in genuine competition be well served.

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