

# Competing Industry Visions

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**Abstract—This article explains that public debates over specific market policies have been complicated by conflicts between the parties’ underlying visions of the electric utility industry. Many in the industry and in positions of political power do not share the Federal Energy Regulatory Commission’s belief that consumers can best be served by bid-based security constrained spot markets operated in conjunction with a market-based locational marginal pricing transmission congestion management system. This article proposes that the Commission will not be able to develop a consistent transmission policy that benefits consumers until the Commission enunciates a vision of the industry that can attract industry and political support. The article proposes that the Commission can reach that goal by returning to the open-access vision of the industry implicit in the Energy Policy Act of 1992 and Commission Order Nos. 888 & 889.**

## I. INTRODUCTION

The electric utility industry is engaged in a vigorous debate about how best to attract efficient investment in those transmission and generation assets required to serve the needs of consumers and the economy. That debate is layered on top of and complicated by the Commission’s ongoing efforts to promote centralized bid-based security constrained wholesale spot markets (“centralized markets”) with locational marginal pricing (“LMP”).

Many industry participants do not share the Commission’s vision of the industry. Rather, there are at least three major competing visions of the ideal structure of the electric utility industry underlying the ongoing policy discussions in the electric utility industry.

Supporters of the first vision are “traditionalists.” These industry participants typically support the pre-Energy Policy Act (“EPAAct”)<sup>1</sup> structure of the industry, and oppose many of the Commission’s efforts to expand access to the interstate transmission system and to institute centralized electric markets. Traditionalists believe that vertically integrated regulated utilities can best bring consumers reliable power at reasonable prices.

Supporters of the second vision of the industry are “market advocates.” This group largely supports the key elements of the Commission’s Standard Market Design Notice of

Proposed Rulemaking (“SMD NOPR”)<sup>2</sup>, including standardized, centralized markets and LMP.

Proponents of the third vision take a middle ground. This group of “open-access advocates” strongly supported EPAAct, the Commission’s Order Nos. 888 & 889,<sup>3</sup> the development of independent system operators (“ISOs”), and the Commission’s efforts to combat market abuses. This group believes that open access to the transmission system and wholesale electric competition should allow load serving entities (“LSEs”) to serve their consumers more reliably and at lower cost than permitted by the traditional model. On the other hand, this group does not support the radical change in the industry’s structure required to support centralized and standardized electric markets.

Each of these different visions provides different answers to questions such as: Who should own and operate the transmission system? How should congestion be managed? How can new transmission investment be elicited and funded?

This is true not only because different transmission policies are more appropriate within different industry structures, but also because those different policies have implications for the underlying debate about which market structure the industry should adopt. For example, transmission pricing and cost allocation policies that appear reasonable to market proponents may be objectionable to traditionalists, not because the policies fail to work in a market environment, but because the traditionalists object to the underlying premise that the industry should move to a market environment.

Until the political system reaches consensus on one vision, it will be difficult if not impossible for the Commission to develop a consistent transmission policies that work together to promote wholesale competition and reduce energy prices for consumers.

The author believes that the industry and the political processes ought to embrace the third, open-access vision of the industry.<sup>4</sup> Although this LSE-centered approach to competition is often neglected in the policy debate, this middle-ground is the most politically palatable and has the greatest chance of bringing consumers most of the efficiencies of competition, without losing the significant benefits of the

<sup>2</sup> Notice of Proposed Rulemaking, Remedying Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design, Dkt. No. RM01-12-000 (July 31, 2002).

<sup>3</sup> Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, FERC Stats and Regs ¶ 31,036; Open Access Same-Time Information System and Standards of Conduct, FERC Stats and Regs ¶ 31,035.

<sup>4</sup> At least outside of the Northeast and MidAtlantic regions. Although PJM, NYISO, and NEISO have their detractors, there does appear to be greater political support in New England, New York, and PJM’s core territory for centralized markets.

<sup>1</sup> Energy Policy Act of 1992, Pub. L. 102-486, 106 Stat. 2776 (1992), codified as amended in scattered sections of title 42 of the U.S.C. Several provisions of EPAAct were amendments to, and codified within the Federal Power Act (“FPA”).

traditional model, including long range planning and accountability.

## II. A QUICK, OVERSIMPLIFIED, HISTORY

### A. *The Traditional Model*

Although imperfect, the traditional regulated monopoly system did an admirable job of bringing consumers reliable power at predictable and affordable prices. For sixty years, regulated utilities delivered electricity to consumers with few regional power disruptions and declining average costs for power.

Under the traditional model utilities had an “obligation to serve,” coupled with strong incentives to conduct long-term planning and construct the infrastructure they needed to meet consumer needs. The regulatory compact assured utilities that they would receive a consistent rate of return on prudent investments that were “used and useful” to serve consumers’ long-term electricity requirements. Moreover, risks to reliability were reduced by the utilities’ obligation to construct adequate reserves to meet system contingencies; by the utilities’ ability to design their generation, transmission and distribution systems to work together as a unified electric system; and, by the relative simplicity of a system with limited electrical interchanges between utility control areas.<sup>5</sup>

Unfortunately, some utilities were permitted or even encouraged to make investments that turned out to be uneconomic. Cost controls were not always adequate to prevent gold plating and there were few competitive pressures to keep costs down. The limited nature of interchanges between control areas denied consumers many opportunities for savings.

Significantly, many vertically integrated utilities abused their control over the transmission grid to their own profit. Under the traditional system, large integrated utilities were often able to force neighboring transmission dependent utilities (“TDUs”) to purchase their power at inflated rates by denying the TDUs the transmission access they needed to reach lower cost generation options.<sup>6</sup> As a result, many consumers paid too much for power.

### B. *The Open Access Model*

In 1992, Congress first forced major changes to the traditional system.<sup>7</sup> In the EAct, Congress granted every

<sup>5</sup> It was also easier under a traditional model for vertically integrated utilities to cooperate with each other to preserve reliability because they faced fewer competitive pressures to cut reliability-related costs and less need to protect what has now become competitively sensitive information.

<sup>6</sup> Of course, any quick history will be oversimplified. In some regions, the utilities worked together better than they did in others. In the Northeast, for example, the compact nature of the grid permitted the industry to form tight power pools. The pools, in turn, permitted more efficient use of regional transmission and regional generating resources. In other areas, IOUs and TDUs were engaged at least to some degree in joint transmission planning and ownership. These arrangements also permitted TDUs some greater access to the transmission system and thus to more economic generation resources.

<sup>7</sup> Some people count the Public Utility Regulatory Policies Act of 1978 (“PURPA”) as the beginning of electric competition. But, while PURPA did create room for the formation of certain new independent generators meeting the definition of qualifying facilities (“QFs”), it did not create a wholesale electric market. For the most part, QFs could still reach only one purchaser

electric utility<sup>8</sup> the right to obtain non-discriminatory open access to the transmission system. For the first time, a generator or LSE that had been denied transmission service had a clear right to appeal to the Commission for an order requiring the transmission company to provide them with transmission service under just and reasonable rates, terms, and conditions. EAct enabled LSEs to reach beyond the relatively high-cost power of their neighboring IOUs and obtain power from their own generating resources or from competing generators located one or more systems away.

Contrary to popular understanding, EAct did not alter the traditional structure of the electric utility system. It did not affect the Commission’s obligation to protect consumers from unjust, unreasonable or unduly discriminatory rates and charges for electric transmission and wholesale sales of electricity.<sup>9</sup> It did not mandate either market-based rates for wholesale sales or the formation of wholesale markets for electricity.

Even after EAct, utilities remained obligated to plan their systems to meet the requirements of their own consumers. Those who paid for the transmission system continued to have priority rights to the transmission system and transmitting utilities were not required to provide third parties transmission service if it would adversely impact their own consumers.<sup>10</sup>

Unfortunately, EAct failed to provide LSEs with sufficient access to the transmission system to create robust wholesale electric competition. The process created by EAct is slow<sup>11</sup> and thus is only useful for obtaining the long-term transmission service required to acquire relatively large blocks of power from remote resources. It is not useful for reaching alternative sources of economy energy on short notice.

In 1996, the Commission sought to fix the shortcomings in EAct by issuing Order Nos. 888 & 889. Relying on its authority under FPA § 206,<sup>12</sup> the Commission ordered all public utilities to offer non-discriminatory transmission pursuant to a single, standardized open-access transmission

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for their output, the electric utility in whose service territory they were located.

<sup>8</sup> EAct also granted access to Federal power marketing agencies and any other person generating electric energy for sale for resale. Federal Power Act § 211(a), codified at 16 U.S.C. 824j.

<sup>9</sup> Federal Power Act §§ 205, 206.

<sup>10</sup> For example, Federal Power Act § 211(d)(1)(B) provides that a transmitting utility may apply to the Commission for an order permitting it to cease providing service if “any transmission capacity of the utility providing transmission services under such order which was, at the time such order was issued, in excess of the capacity necessary to serve its own customers is no longer in excess of the capacity necessary for such purposes.” Similarly, § 212(a) provides that the rates for service “shall ensure” that the costs of providing transmission service “are recovered from the applicant for such order and not from a transmitting utility’s existing wholesale, retail, and transmission customers.”

<sup>11</sup> Each time that an electric utility wishes to obtain new transmission service, it must first spend 60 days negotiating with the transmitting utility. *Id.* at § 211(a). If negotiations fail, it must then file a complaint with the Commission and wait for the Commission to rule. Once the Commission orders service, the parties must spend additional time negotiating the rates, terms and conditions for service. If those negotiations fail, the TDU must return once again to the Commission.

<sup>12</sup> The Commission has not relied on EAct as authority for Order No. 888, Order 2000, or its SMD NOPR. Instead, it has consistently gone back to the authority originally granted it in 1935 by the Federal Power Act. *See, e.g.*, Order No. 888, FERC Stats and Regs ¶ 31,036 at 31,635.

tariff (“OATT”) and to post available transmission capacity electronically. (“OASIS”) No longer would third parties have to spend months or years negotiating the rates, terms, and conditions of transmission service. Transmission customers could know almost instantly if there was sufficient transmission capacity available to meet their requirements.

Order No. 888 also encouraged utilities to form ISOs to plan and operate the transmission system on a regional basis.<sup>13</sup> By creating larger integrated transmission systems centrally planned and operated by independent organizations, Order No. 888 contemplated that ISOs would further reduce discrimination on the transmission system, provide for a more efficient grid, increase wholesale competition, improve reliability, and lower prices for consumers.

Order Nos. 888 & 889 made it far easier for TDUs to reach out beyond their neighbors for generation resources. They could construct their own generation or contract long term with competitive suppliers for the resources they needed to serve their consumers, with far less cost and far more certainty than was possible under EPAct or the traditional system. They could also more easily obtain short-term economy energy supplies from a far wider range of resources. That bilateral wholesale competition effectively drove down energy costs for many consumers.

On their surface, Order Nos. 888 & 889 appeared to make significant changes to the industry’s structure. For the first time, the generating arms of transmitting utilities and third-party transmission customers were supposed to compete for transmission capacity on an equal footing. As a result, Order Nos. 888 & 889 ruffled the feathers of the traditionalists. These vertically integrated utilities and their state regulators feared that the Commission was interfering with retail consumers’ access to transmission facilities that were built by LSEs to serve their retail consumers and paid for by the retail consumers.<sup>14</sup> By treating all firm transmission service equally, and requiring retail consumers to be curtailed proportionately with network service and long-term firm consumers, the Commission appeared to be altering the traditional industry model and interfering with matters that had traditionally been reserved to the states.

In retrospect, however, Order Nos. 888 & 889 did not make as large a change to the traditional system as it appeared. Order No. 888 included a number of protections for existing transmission customers. For example, the Commission: opted not to regulate bundled retail transmission service or to force vertically integrated utilities to take service under the OATT for their consumers receiving bundled retail service;<sup>15</sup> grandfathered many existing contracts;<sup>16</sup> allowed utilities to reserve transmission capacity for the future use of their own native-load and network customers;<sup>17</sup> and, permitted many

transmission customers the right to roll-over their existing contracts, allowing them to retain their existing physical rights to transmission service.<sup>18</sup> The Commission also gave native load, network customers, and longer-term firm customers higher priority access to the transmission system than it gave customers seeking to move short-term economy transactions.<sup>19</sup> These provisions ensured that load-serving entities continued to have access to the transmission services and the physical rights they needed to deliver energy to their consumers under predictable rates, terms, and conditions. These provisions reflected practical realities and were included to maintain the political legitimacy of the orders.

By providing clarity, uniformity, and transparency, Order Nos. 888 & 889 enhanced the ability of load-serving entities to plan their systems to meet the long-term needs of their consumers. LSEs could pair transmission service under an OATT with a long-term generating resource and obtain some certainty that they would be able to deliver energy to their loads at a reasonable price.

Although they gave longer-term transactions greater priority, Order Nos. 888 & 889 also created the transparency and uniformity required to enable a far higher number of short term energy transactions, increasing efficiency and lowering cost for consumers. Thus, Order Nos. 888 & 889 enabled the development of a more robust bilateral wholesale market for electricity.

Open access gave LSEs a variety of choices for meeting their long and short-term power needs. LSEs could contract with a neighboring utility, construct their own generation resources and wheel the power to their consumers, or reach out beyond the borders of their neighbors to access resources several control areas away. And, where transmission capacity was available, LSEs could obtain short term economy energy elsewhere as well.

While Order Nos. 888 & 889 significantly increased wholesale competition in the industry, some stakeholders expressed concern that Order Nos. 888 & 889 had still failed to eliminate all discrimination on the transmission grid. In part because of shortcomings in the OATT, and in part because of the slow development of ISOs, vertically integrated utilities continued to have the ability to abuse their control of the transmission system to favor their own generation. Some were able to operate the system such that only their own generating resources could reliably be delivered to wholesale customers. Some could manipulate their calculations of available transmission capacity (“ATC”) to deny third parties access to the transmission system. Third party transmission or interconnection requests might not be processed as quickly as those from affiliated generators. Transmission investments needed to serve native load were made, while new transmission projects that would have benefited third-party generation went unbuild.

Some stakeholders, therefore, pressed the Commission to pursue the open-access goals of Order Nos. 888 & 889 by pushing more firmly for the formation of ISOs and more aggressively prosecuting market power abuses.

<sup>13</sup> *Id.*, at 31,730.

<sup>14</sup> See *Transmission Access Policy Study Group v. FERC*, 225 F.2d 667, 689, 694 (D.C. Cir. 2000) (Upholding most of Order 888 against charges that Order 888 discriminated against the native load consumers that had paid for the existing transmission system and that the Commission lacked the authority to regulate unbundled retail transmission) (“TAPS”), *aff’d sub nom.*, *New York v. FERC*, 535 U.S. 1 (2002).

<sup>15</sup> *Id.*, at 31,699.

<sup>16</sup> *Id.*, at 31,662.

<sup>17</sup> *Id.*, at 31,694.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*, at 31,746, 31,747.

Another group of industry participants expressed a more fundamental disappointment with Order Nos. 888 & 889. This group believed that the Orders' underlying open-access approach denied the industry significant opportunities for greater economic efficiency. In contrast to the traditionalists, who believed the Commission had gone too far in reordering the industry, Enron and other market proponents believed the Commission had not gone far enough.<sup>20</sup> Market proponents asked the Commission to require the complete unbundling of transmission service, to deny bundled consumers higher priority access to the transmission system, and to eliminate the priority that Order No. 888 gave to long-term reservations of the transmission system.

### C. *The Market Model*

In January 2000, the Commission issued its final rule on Regional Transmission Organizations, Order 2000.<sup>21</sup> In Order 2000, the Commission expressed its belief that “[c]ompetition in wholesale electricity markets is the best way to protect the public interest and ensure that electricity consumers pay the lowest price possible for reliable service.” While the Commission explained that wholesale electric markets had dramatically expanded under Order Nos. 888 & 889, the Commission concluded that more needed to be done to address continuing barriers and impediments to achieving fully competitive electricity markets. Specifically, the Commission decided to encourage the industry voluntarily to develop appropriate regional transmission organizations (“RTOs”) that could:

- (1) Improve efficiencies in transmission grid management; (2) improve grid reliability; (3) remove remaining opportunities for discriminatory transmission practices; (4) improve market performance; and (5) facilitate lighter handed regulation.<sup>22</sup>

An “appropriate” RTO would meet the four minimum characteristics: (1) independence, (2) scope and configuration, (3) operational authority, and (4) exclusive authority over short-term reliability; and eight minimum functions of an RTO: (1) tariff administration and design, (2) market-based congestion management, (3) addressing parallel path flow, (4) providing ancillary services, (5) maintaining the OASIS and calculating ATC and TTC, (6) market monitoring, (7) transmission planning and expansion, and (8) interregional coordination.

In an effort to jump start the formation of RTOs, the Commission required in Order No. 2000 that all public utilities report to the Commission by October 15, 2000 what steps they had taken to form an RTO or the reasons why they had not acted.

A number of traditionalists questioned whether discrimination continued to be a problem under Order Nos. 888 & 889 and argued that the Commission lacked an evidentiary basis for Order 2000. Both market proponents and open-access proponents, on the other hand, largely supported Order 2000. Both could because Order 2000 was

consistent with both visions; the Commission had not yet chosen between them.

Most of Order 2000 made sense to both groups. Both were concerned about the continued ability of vertically integrated utilities to abuse their control over transmission to favor their own generation – the core of Order 2000. Both saw the value of internalizing loop-flow problems. Both saw the value of increasing the scope of wholesale electric markets.

Certainly, the two differed fundamentally with respect to how congestion should be managed. While market proponents strongly supported LMP, open-access advocates sought to retain physical transmission rights, or asked the Commission at least to insulate existing firm customers from new congestion costs caused by new market uses of the transmission system and LMP.<sup>23</sup>

Order 2000 avoided taking sides by remaining flexible. While the Commission telegraphed its preference for LMP, the Commission chose not to “prescribe a specific congestion pricing mechanism” and seemed to remain open to approaches that would manage congestion by means of physical transmission rights that are tradable in a secondary market.<sup>24</sup>

The Commission, however, did not remain flexible for long. Shortly after it became clear that most utilities were not accepting Order No. 2000's “invitation” to form RTOs *post haste*, the Commission issued its SMD NOPR. The SMD NOPR proposed to “provide new choices through a flexible transmission service, and an open and transparent spot market design that provides the right pricing signals for investment in transmission and generation facilities, as well as investment in demand reduction.”<sup>25</sup>

The SMD NOPR proposed to replace the Order No. 888 OATT with a new tariff with a single transmission service that would in all cases be administered by an independent entity, either an RTO or an Independent Transmission Provider (“ITP”). RTOs and ITPs would be required to operate day ahead and real-time markets, manage congestion through the use of LMP, and provide for market monitoring and transmission planning. The SMD NOPR also proposed a new regional resource adequacy requirement.

The SMD NOPR proposed to eliminate physical rights to the transmission system and to undo the preferences Order Nos. 888 & 889 gave to native load, network customers, and long-term firm transmission requests. This change was the centerpiece of the SMD NOPR. While physical rights worked well for LSEs interested only in acquiring power for delivery to their consumers, it did not work well for power marketers and brokers interested in trading electricity as a commodity. For such entities, the physical limitations of the transmission system also served to limit the number and variety of transactions in which they could engage, and thus the amount of efficiency and profits they could wring out of the assets available in the industry. The SMD NOPR intended to remove those limitations.

By replacing physical rights to transmission service with financial rights, the SMD NOPR would permit parties to

<sup>20</sup> See, e.g., TAPS, 225 F.2d at 692.

<sup>21</sup> Regional Transmission Organizations, FERC Stats. & Regs. ¶ 31,089 (December 20, 1999) (“Order 2000”).

<sup>22</sup> Id. at p. 30,993.

<sup>23</sup> Id. at p. 31,120.

<sup>24</sup> Id. at p. 31,126.

<sup>25</sup> SMD NOPR, at ¶ 3.

transact around the physical limitations of the transmission system. As the Commission explained, the new system would allocate limited transmission facilities to their highest uses, as demonstrated by willingness to pay.<sup>26</sup> The Commission has also since argued that the system would increase the reliability of the system.

Although the SMD NOPR described itself as “the third in a series of initiatives undertaken by the Commission to harness the benefits of competitive markets for the nation’s electricity customers”<sup>27</sup> following Order Nos. 888, 889, and 2000, that was only partially true. Like the earlier Orders, the SMD NOPR was intended to eliminate discrimination on the transmission system, increase wholesale electric competition, and assure adequate and reliable supplies of electric energy at a just and reasonable price. For a number of reasons, however, the SMD NOPR was a radical departure from the “open access” model embodied by Order Nos. 888 & 889 and left intact by Order 2000.<sup>28</sup>

First, the SMD NOPR represents a dramatically different vision of the industry from that underlying the earlier models. Under the traditional vision, vertically integrated utilities designed and operated their transmission systems to deliver their generation resources to their loads. Under the open-access vision, vertically integrated utilities or ISOs designed operated the transmission system to permit all LSEs to deliver their own or competitive generation resources to their consumers. Under the market model of the industry, RTOs operate the transmission system to permit generators and power marketers to sell their product to each other and to competitive buyers. The NOPR reversed the direction, or perspective from which the Commission had previously viewed the industry. Rather than focusing on consumers’ access to competitive power, the SMD NOPR focused on competitive power producers’ and marketers’ access to consumers.

That new perspective was demonstrated by the NOPR’s redefinition of “discrimination.” For the first time, and in direct conflict with Order No. 888, the Commission decided that native load and network customers should have no greater rights to the transmission system than should power marketers seeking to make short-term economy sales. The consumers that paid for the system, and for whom the system was designed, are no longer the driving factor and no longer have priority to the system. They must compete for access equally with competitive generators and power marketers.

Second, this change in philosophy also leads to changes in the way the transmission system is planned. Under the traditional and open-access models, the transmission system was planned long term to deliver resources to loads by entities with an obligation to serve. Under the market model, each

new investment in transmission must be driven by a profit-oriented business in response to market signals and in competition with other investments in generation or demand response.

Third, the market model also alters the historical division of regulatory authority between the states and the federal government. Under the traditional model, states regulated all aspects of vertically integrated utilities’ business involved in providing retail electric service, including resource planning, generation, transmission, and distribution. Offered to retail consumers in a single bundled package it was all subject to state oversight and review. States had the authority to ensure that utilities acquired adequate transmission and generation resources to serve their consumers, to oversee the costs of those resources, and to ensure that retail consumers received priority access to those resources.

The open-access model began to undermine state authority. Although the Commission permitted states to continue to regulate bundled service to retail consumers, the Commission took shared jurisdiction over those facilities used to provide transmission service in interstate commerce or to sell energy at wholesale. The states and the Commission have had to dance together with neither willing to follow the other’s lead.<sup>29</sup>

Under the market model, the state’s authority over resource planning and the rates, terms and conditions of transmission used to serve retail consumers evaporates. To make the market work, all transmission service must be unbundled and scheduled through the spot markets subject to Commission regulations. State regulators have no control over transmission rates and no ability to ensure that their consumers receive priority access to the transmission facilities for which they have paid.

The new transmission policies also make it harder for states to oversee their regulated utilities’ generation costs. In short, the new congestion management systems make it harder for utilities to obtain long-term price certainty. Because of LMP, the cost to deliver power from generation resources, and thus the delivered cost of power, can change several times an hour. Even if there was sufficient transmission available at the time a generation resource was first acquired, other competitors’ use of the system (or even “virtual bidding”) can create significant congestion on the system without warning. Thus, while it may appear reasonable for an LSE to invest in a large baseload generator in year x, the delivered cost of power from that generator could change significantly at any point thereafter, due to events beyond the LSE’s control. In order to mitigate those new congestion costs, an LSE may be forced to purchase expensive FTRs or finance a transmission upgrade. None of these transactions are subject to state regulation or control.

Finally, the market model significantly alters the role of the Commission itself. Rather than acting as a regulator, reviewing rates, terms and conditions of service filed in advance to ensure that they are just, reasonable, and not

<sup>26</sup> *Id.* at ¶ 10.

<sup>27</sup> *Id.* at ¶ 1.

<sup>28</sup> It goes without saying that the SMD NOPR was an even more radical departure from the traditional model. Although Congress has never amended the Federal Power Act’s requirement that FERC ensure that rates, terms and conditions of service be just, reasonable, and not unduly discriminatory, FERC based the SMD NOPR on the need to “remedy undue discrimination, enhance competition, remove economic inefficiencies, and ensure just and reasonable rates, terms and conditions of transmission of electric energy.” *Id.* at 6 (emphasis added).

<sup>29</sup> States that have implemented retail competition have appeared to be more comfortable with an expansion in the Commission’s role.

unduly discriminatory, the Commission would focus almost exclusively on designing markets.

### III. THE PROBLEM

All of these changes have created enormous friction in the industry. The SMD NOPR caused a loud outcry throughout the country, and from the southeast and some in the northwest in particular. Many utilities, state regulators, and ultimately federal legislators harshly criticized the Commission for overstepping its authority<sup>30</sup> and the Commission was forced to back off the NOPR's strong call for national uniformity.

On April 28, 2003, the Commission tacitly admitted it lacked the political support required to issue a final SMD rule. Instead, it issued a White Paper outlining the Commission's Wholesale Market Platform ("WMP"). The WMP expressed the Commission's continued intention to pursue a market vision of the industry. Although it reflected more willingness to accept regional variations than did the SMD NOPR, the WMP proposed to require all utilities to join RTOs or ISOs and to require those RTOs and ISOs to administer wholesale markets with "transparent market mechanisms with efficient price signals in place to manage transmission congestion."

In the face of continuing opposition, it now appears that the Commission has dropped its WMP as well. At the least, the Commission has never tried to enforce the WMP's proposed requirement that all utilities join an RTO or ISO.

Despite its recognition that it lacks the political support to implement either the SMD NOPR or the WMP, the Commission has not dropped its efforts to shift the industry towards its market vision. That is clear in the Commission's Orders and public statements requiring the Midwest ISO ("MISO") to adopt SMD-style Day-2 markets notwithstanding the opposition of most of the transmission owners and GFA holders in the MISO region.<sup>31</sup>

Because of its continued adherence to its market vision, the Commission continues to come under political attack. H.R. 5, passed by the House in 2003, included language that would have provided that "[n]o final rule mandating a standard electricity market design pursuant to [the SMD NOPR], including any rule or order of general applicability within the scope of the proposed rulemaking, may be issued before October 31, 2006, or take effect before December 31, 2006."<sup>32</sup>

On July 19, 2004, nearly 20 members of Congress wrote Chairman Wood a letter criticizing the Commission's orders respecting market-based rate authority, transmission interconnection, and transmission pricing policy. They were not objecting to the whole of the Orders. Rather, as Senator Shelby subsequently explained, "Our letter is necessary to express the concern that the Commission is taking a piecemeal approach to the implementation of the much-criticized

Standard Market Design ("SMD") by cobbling together rulemakings that would, among others, move towards mandatory Regional Transmission Organizations ("RTOs") and an elimination of the vertically integrated utility."<sup>33</sup>

More recently, on October 1, 2004, more than 70 Senators and Congressmen wrote Chairman Wood to express their concern with a number of Commission Orders that they believed were a backdoor effort to mandate RTOs. They explained that "[w]hile competition in the wholesale power market might also benefit retail electric consumers, it must be allowed to develop and operate compatibly with the existing vertically integrated structure." As an unnamed source explained to Electric Power Daily, "[t]he letter shows that 'the political support does not exist for [FERC] to move forward over the objections of states and existing industry structures that are not consistent with their vision.'"<sup>34</sup>

This opposition is not only coming from traditionalists, who could be expected to oppose Commission efforts to promote wholesale electric competition. Increasingly, traditionalists are also gaining unlikely allies among open-access proponents. Although they previously supported the formation of ISOs and RTOs, the increasingly high costs of RTO formation, the lack of sound cost-benefit studies demonstrating the value of RTOs, and MISO's support for abrogation of existing transmission contracts, are causing some open-access advocates to join the traditionalists' cause or at least to seriously question continued RTO development.

Due in part to this strong political opposition, many of the Commission's efforts to fix the lingering problems with Order Nos. 888 & 889 have been delayed. The Commission has ongoing rulemakings at various stages of development and pending legal challenge on a range of industry issues including Standards of Conduct for Transmission Providers (RM01-10), Electricity Market Design and Structure (RM01-12), Standardization of Generation Interconnection Agreements and Procedures (RM02-1), Standard of Review for Proposed Changes to Market-Based Rates Contracts for Wholesale Sales of Electric Energy by Public Utilities (PL02-7), Standardization of Small Generator Interconnection Agreements and Procedures (RM02-12), Proposed Pricing Policy for Efficient Operation and Expansion of Transmission Grid (PL03-1), and Market-Based Rates for Public Utilities (RM04-7).

In the meantime, consumers are paying for these political fights in a number of ways. First, until the holes in Order Nos. 888 & 889 are filled, consumers continue to pay too much for power.

Second, the stalemate has imposed enormous regulatory costs on the industry for regulatory initiatives and RTO development efforts that have not (yet) paid any dividends. In addition to expenses incurred in commenting on and litigating the rulemakings listed above, consumers have paid tens of millions of dollars in legal and consulting fees for Commission driven efforts to form a single Northeast RTO; to form the Alliance, SETrans, Grid Florida, and Grid South in

<sup>30</sup> For a compilation of documents on this point, see <http://www.protectpowerconsumers.org>, the website for the Alliance of State Leaders Protecting Electricity Consumers.

<sup>31</sup> See, e.g., Midwest Independent System Operator, Inc.: Public Utilities With Grandfathered Agreements in the Midwest ISO Region, 108 FERC ¶ 61163 (August 6, 2004) (emphasis added); order on reh'g, 109 FERC ¶ 61,157 (Nov. 8, 2004).

<sup>32</sup> Energy Policy Act of 2003, H.R. 6, 108<sup>th</sup> Cong., § 1235 (2003) (emphasis added).

<sup>33</sup> See <http://shelby.senate.gov/news/record.cfm?id=224286>.

<sup>34</sup> "Wood pressed by Congress on RTO membership incentives," Electric Power Daily, October 6, 2004, at 8.

the Southeast; and to form IndeGO, Grid West, West Connect, Crescent Moon RTE, Desert Star ISO, and RTO West in the West.

Third, and more importantly, the long-running stalemate has also created enormous regulatory uncertainty, helping to drive investment out of the industry, and preventing the construction of much needed generation and transmission infrastructure. Among other things, the rules for transmission cost recovery, transmission cost allocation, and the allocation of transmission rights remain up in the air in many parts of the country. Until those rules are settled, no potential investor in either transmission or generation could have confidence that they would be able to recover their investment.

As Commission Kelliher has recognized, something needs to be done to break the Commission out of the political deadlock it faces to permit it to move forward with a strong consistent series of transmission policies that benefit consumers.<sup>35</sup>

#### IV. WHERE TO FROM HERE?

For the industry to move forward, this stalemate must be resolved. The Commission must articulate a vision of the industry that Congress, the states, and most industry stakeholders can accept. Only then can all the parties work out the details required to implement the common vision. The approach that appears most suitable for this purpose is the open-access vision inherent in EPAct and Order Nos. 888 & 889.

##### *A. In Many Regions, The Industry Is Not Ready To Move to Centralized Markets*

Much of the industry is not yet ready to adopt the Commission's current market vision. Although there appears to be significant buy-in within PJM, New York and New England, the Southeast and most of the West have been vehemently opposed, and the Midwest has been a battleground region with only a limited number of market-proponents.

There are a number of reasons for the industry's continuing resistance to the Commission's market vision. The first and most significant is the concern many hold that markets will hurt at least some consumers: residential consumers, consumers in low-cost states or regions, consumers with less ability to shift their demand to off-peak periods, and or consumers located in load-pockets. Many view electricity as an essential service, not a commodity. They are willing to accept some market inefficiency and pay some insurance premium to ensure that all consumers, including the most vulnerable, continue to have access to reliable power at a predictable and affordable price.

Certainly, those who fear the effects of centralized markets need only point to the collapse of the California market and its region-wide impacts to justify their concerns. After that disaster, they need to see proof that markets can work (at least outside of regions that had long had tight power pools) before trusting that centralized markets are good for consumers.

<sup>35</sup> "FERC's Kelliher ponders how to improve Order 888," *Electric Power Daily*, October 14, 2004, at 1.

There is also some legitimate parochialism involved. Regulators in low cost states have a statutory obligation to look out for the interests of consumers in their states. They cannot legally support a policy that will lower electricity prices in a neighboring state if it does so at the expense of consumers in their own state. Politicians must also worry about their own constituents. Few politicians get elected for increasing the efficiency of an industry, but many have lost their seats for voting the wrong way on pocket-book issues.

The second reason the industry is not ready to move to centralized markets is an old rule of thumb called the 80-20 rule. The rule says that in most situations, 80% of the benefit to be achieved from any enterprise can be accomplished with the first 20% of the effort. Conversely, to squeeze out the last 20% of value can require 80% of the cost and effort. Often, that last 20% of value should be left on the table because the cost to attain it far exceeds the value to be achieved. That rule applies as much to regulation of the electric utility industry as it does elsewhere.<sup>36</sup>

Few industry participants question the fact that robust wholesale electric competition can help drive down the costs of electric energy. That was the premise of both EPAct and Order Nos. 888 & 889, and the open access environment they created enabled the development of a significant bilateral wholesale market for electricity. The OATT and the ISOs formed in the MidAtlantic, the Northeast, and the Midwest, permitted independent power producers ("IPPs") and power marketers to compete more aggressively against traditional vertically integrated utilities.

The fact that there is consensus in support of promoting wholesale competition in the industry, however, does not answer the question how far the Commission should go to promote wholesale electric competition. Should the Commission seek to address continuing problems within the open-access framework it created in Order Nos. 888 & 889 or should it pursue centralized markets and LMP?

The 80-20 rule suggests the former. The Commission took an enormous step forward with Order Nos. 888 & 889, and there is still a great deal that the Commission could accomplish within the open-access framework. Many of these incremental improvements, sketched out below, could be relatively simple and inexpensive to implement. For example, the Commission staff recently issued a report indicating that Day-1 RTOs (which look a lot like Order No. 888 ISOs) can be developed for as little as \$50 million.<sup>37</sup> A well-designed Day-1 RTO should be able to bring consumers all the additional benefits that can be derived from independent, regional, non-discriminatory tariff administration and design; regional generation redispatch; regional management of

<sup>36</sup> It could be said that the courts have written the 80-20 rule into the Federal Power Act ("FPA"). The Federal Power Act requires the Commission to ensure that the rates, terms, and conditions of interstate transmission and wholesale electric energy are just and reasonable. The courts have not interpreted that provision to require the Commission to expend the resources required to discover and then impose "ideal" tariffs on utilities. Rather, the courts have recognized that there is a "zone of reasonableness" within which the Commission should approve filed tariffs.

<sup>37</sup> "Staff Report on Cost Ranges for the Development and Operation of a Day One Regional Transmission Organization," Dkt. No. PL04-16-000 (October 2004) ("Staff Report").

parallel path flows; a single regional OASIS; independent regional transmission planning; independent market monitoring; and, interregional coordination. It appears to many that Order Nos. 888 & 889, with these incremental improvements, can bring consumers most of the benefit that can be gained from wholesale competition.

On the other hand, the incremental cost of moving to a market-vision of the industry appear enormous. The Commission Staff report's own charts indicated that a Day-2 RTO with centrally operated spot markets and LMP could cost as much as \$250 million to form, with additional annual operating expenses of as much \$240 million per year.<sup>38</sup>

In addition to these more easily measurable development and operation costs, many industry participants and regulators are concerned about the less measurable costs of moving to Day-2 markets including: the additional risk management costs LSEs would need to incur to address the new market risks; the additional staff and software LSEs would need to interact with the RTO; the higher cost of capital investors would require because of the higher market; the cost of the new transmission upgrades required to enable a higher volume of energy transactions taking place over longer distances; and, the higher regulatory and market monitoring costs required to police highly complex market structures that may be more susceptible to manipulation and abuse.<sup>39</sup>

The third reason for skepticism is a lingering question whether the industry can ever support a centralized market that is more efficient than the regulated model. The electricity industry is characterized by numerous market failures, including lack of entry, lack of information, high transaction costs, free rider problems, high efficiencies of integration, and others. While the generation of peaking power, and possibly intermediate power, may no longer be a vertical monopoly, there are many in the industry who believe that the reliable and affordable provision of electric service to ultimate consumers still is.

In other words, some believe that it is possible for the industry to sustain a competitive wholesale bilateral market for electric energy, but that the market must take place within the context of a regulated industry. How can that work? In the same way that EPAct and Order Nos. 888 & 889 intended.

IPPs that believe that they can build and operate power plants more efficiently and at lower cost than vertically integrated utilities should have the ability to compete with those vertically integrated utilities to meet the long-term energy needs of LSEs. Rather than building a power plant on spec. with the intention of selling the output to different purchasers at a different price in each hour through a centralized market, investors would instead build power plants to meet specific long-term bilateral contractual obligations.<sup>40</sup>

<sup>38</sup> Staff Report at 20-21.

<sup>39</sup> Recognize as well that the theoretical marginal benefits of those spot markets and LMP must be tempered with reality. For example, the Commission realistically anticipates that only a small percentage of electricity transactions will actually take place in those spot markets. The 80% or more of bilateral longer-term transactions will likely prevent the spot markets from capturing some efficiencies.

<sup>40</sup> This approach is consistent with the present demands of Wall Street, which now wants to see a long-term power purchase agreement in place before it is willing to finance a merchant power plant.

The long-term power purchase agreement would provide the income stream needed to finance the plant, but the IPP could earn additional return through short-term economy sales of surplus capacity.

In response to arguments that centralized markets are inherently more efficient than regulators, open-access proponents need only point to the July 7, 2003 FERC Staff Paper on Regional Choices for Elements of the White Paper. The Staff Paper makes clear that centralized markets do not remove regulators from the equation. Instead, they can serve to multiply both the need for regulation and the potential inefficiencies that can arise from regulators' errors. There is no detail of a market that does not need to be designed by regulators, from the procedures for operating the markets, to the procedures for allocating FTRs, to the rules for resource adequacy. Moreover, any errors in any of these elements can cause more harm to consumers than any mistakes that the Commission could make in traditional cost-of-service rate cases. As California demonstrated, large errors in market design can cost consumers billions of dollars. Even less serious regulatory mistakes can lead to market abuses, cost shifts between consumers, over- or under-investment in transmission and generation resources, and other costly market failures.

#### *B. The Industry Should Not Retreat Fully Back to A Traditional Vision*

Just as the industry is unready for a revolutionary jump to centralized markets, most of the industry is equally unwilling to retreat fully back to a traditional model. Congress made it clear in EPAct, which passed by a large bipartisan margin, that it wished to see enhanced transmission access that would support the development of bilateral wholesale electricity markets. Congress wanted LSEs to be able to reach beyond their traditional boundaries to access competitive energy supplies.

Moreover, nearly all industry stakeholders agree that freeing up available capacity on the transmission system to competitive uses can improve the reliability of the system and lower the cost of power for consumers. While some were concerned about the harm that Order Nos. 888 & 889 could do to native load consumers, the fear appeared to be that native load consumers could lose their priority to the transmission capacity that it actually needed. The underlying premise that utilities should provide non-discriminatory open access to any *available* transmission capacity on the system was relatively non-controversial. Congress has actively debated energy issues during the eight years since the Commission issued Order Nos. 888 & 889, yet it made no effort to overturn the Commission's actions until the SMD NOPR was issued.

It is true that the value of ISOs has been more controversial. On the one side, some stakeholders firmly believe that regional operation of the transmission system by an independent entity can bring consumers significant benefits. They argue that independent operation of the transmission system can substantially mitigate the ability of transmission owners that also own generation to influence the market for electric energy and to discriminate against competitors. Because an effective ISO can operate the transmission system



on a regional basis, they argue it can also significantly improve reliability and reduce the potential for power market instability that can lead to price spikes. A well designed ISO should also be able to conduct a regional transmission system planning process in a manner that ensures that all transmission additions and upgrades needed for the reliable and economic service of consumers in the region are constructed.

On the other side, much of the country has resisted the Commission's efforts to regionalize the operation of the transmission system. A number of studies have questioned the economic value of ISOs or RTOs.<sup>41</sup>

Most of that resistance, however, appears aimed more at the Commission's market-oriented vision of the role of RTOs than it is at the concept of ISOs. For example, many of the same entities that enthusiastically responded to Order No. 888 by forming MISO have since firmly opposed the MISO's proposed tariff implementing Day-2 markets. It is also particularly telling that the same bill that included language aimed at killing SMD, also included language promoting ISOs.<sup>42</sup>

### *C. The Commission Should More Fully Implement an Open Access Vision of the Industry*

There are some traditionalists who will continue to oppose a move towards open-access, and there are some market-advocates that will wish to go farther. For the most part, however, political institutions and industry participants appear willing to accept Order Nos. 888 & 889's vision of wholesale competition as a compromise point of view.<sup>43</sup>

Accordingly, if the Commission wishes to move beyond the existing policy stalemate, the Commission should publicly and explicitly abandon its destabilizing efforts to promote a market vision of the industry (at least outside of the Northeast and MidAtlantic). Instead, the Commission should plainly articulate and seek more fully to implement an open-access vision of the industry, finishing the work it began with Order Nos. 888 & 889.

In both Order 2000 and the SMD NOPR, the Commission identified the outstanding problems that still needed to be addressed. These included: the ability of vertically integrated utilities to abuse their control over the transmission system to favor their own generation, rate pancaking, insufficient transmission capacity to enable efficient wholesale electric transactions, seams problems that block efficient interregional

wholesale electric transactions, and continued problems addressing parallel path flows.

Many of these problems could be addressed by well-designed ISOs. As explained above, developing ISOs will not be easy. Traditionalists and more recently even open-access advocates have been opposing the development of RTOs and ISOs. It may still take many years for the industry to form and implement ISOs.

Nevertheless, there are ways for the Commission to ease the process. In particular, the Commission must calm fears that formation of an ISO will lead inevitably to centralized markets. When the Commission issued Order 2000 and the SMD NOPR, it badly slowed the ISO formation process. By asking RTOs to operate spot markets and implement LMP, the Commission made it far more difficult for stakeholders join together on a regional basis. More recently, the Commission's MISO Orders have further increased the fears of both traditionalists and open-access advocates. Neither would wish to create a new ISO if it could lead to the creation of large, expensive, and unresponsive new bureaucracy; abrogation of existing contracts; and the multiplication of market risks.

While it will take some time for the Commission to regain its credibility, the Commission could greatly speed the process of forming ISOs by making a "noisy withdrawal" from its present market vision of the industry. That change in vision would significantly reduce the number of issues on which industry participants must agree and remove the most contentious issues from discussion.<sup>44</sup>

Once formed, ISOs should be able to address many – though not all – of the market power problems in the industry.<sup>45</sup> The ISOs should independently calculate ATC and total transmission capability, administer the OATT, maintain the OASIS, and handle many of the other transmission functions that can today be gamed by vertically integrated utilities.<sup>46</sup> ISOs should also have the size and scope required to internalize parallel path flows and reduce rate pancaking. ISOs will also have the obligation to address seams and rate pancaking problems between themselves and their neighbors.

ISOs should also have the authority to conduct a regional transmission planning process. One hopes that a regional process that allows input from all regional stakeholders, including the states, will build the support required to get siting authority for needed transmission upgrades. These activities will increase efficient transactions and improve reliability.

<sup>41</sup> See, e.g., Charles River Associates, *The Benefits and Costs of Regional Transmission Organizations and Standard Market Design in the Southeast*, November 6, 2002.

<sup>42</sup> "It is the sense of Congress that, in order to promote fair, open access to electric transmission service, benefit retail consumers, facilitate wholesale competition, improve efficiencies in transmission grid management, promote grid reliability, remove opportunities for unduly discriminatory or preferential transmission practices, and provide for the efficient development of transmission infrastructure needed to meet the growing demands of competitive wholesale power markets, all transmitting utilities in interstate commerce should voluntarily become members of Regional Transmission Organizations . . ." H.R. 5, § 1232.

<sup>43</sup> Many of the organizations that had most aggressively lobbied for the market vision of the industry, such as Enron, Dynegy, Aquila, and Williams, have since existed the power marketing business or have otherwise lost much of their clout.

<sup>44</sup> Before the SMD NOPR and MISO Orders, there were some open-access proponents who wished the Commission to use its conditioning authority to push all public utilities into ISOs. If the Commission were to back away from a market vision, the open-access proponents could return to that position. That would be controversial with traditionalists, but a lot less controversial than the Commission's efforts to push public utilities into RTOs are today.

<sup>45</sup> The formation of RTOs and ISOs cannot address all market power problems. Transmission congestion within and between RTOs and ISOs, load pockets, and concentration of generation ownership will continue to permit some utilities to exercise generation market power. Though not the focus of this article, the Commission will continue to have to protect consumers from market power of dominant players in the industry through its ability to review mergers and requests for market rate authority.

<sup>46</sup> Until the transmission system is subject to independent control and operation, the Commission will need aggressively to enforce its behavioral rules to prevent such abuses.

This process should be easier under an open-access vision of the industry than under a market-vision of the industry. State regulators will have greater confidence that transmission upgrade projects identified by the regional planning process are actually needed to serve consumers within the region more reliably and affordably, and not merely to support a centralized wholesale market whose benefits may not be captured by consumers within the region.

The regional planning process will also be more meaningful if the Commission can give investors confidence that they will be able to recover their investment if they build those upgrades the regional planning process determines are needed to serve consumers in the region. Transmission investments that serve consumers within the region must be rolled into a regional transmission rate. Needed transmission will never be built if investors are asked simply to rely on financial transmission rights to recover their investment.<sup>47</sup>

A roll-in approach to transmission investment costs is easier to justify under an open-access vision than it is under a market vision. Under a market-approach, all investment is driven by market incentives. Enormous care, therefore, must be taken not to mute price signals. Under an open-access vision, however, most investment decisions are still driven by LSEs with an obligation to serve. Because they are looking to the long term interests of their consumers, are purchasing most of their generation resources long-term, and need to build the transmission facilities required to deliver those long-term resources to load, price signals do not need to be as precise.

Moreover, because the LSEs within each region are planning the system together, to find the most efficient way to serve all of their consumers over the long term, it is less important to assign the costs of an individual upgrade to the specific consumers that benefit. Just as electrons flow over the regional grid without concern for ownership, so also will the benefits of each upgrade flow to all consumers in the region without concern for who requested the specific upgrade. Joint planning and joint operation removes most of the need for direct assignment of network facilities.

Even with appropriate cost recovery and cost-allocation rules, it may still be difficult to get vertically integrated utilities to invest in transmission facilities that may benefit other consumers or competitors in the region. The Commission can work to solve this problem by pursuing other models of transmission ownership and investment that are consistent with the open-access vision. For example, the Commission could encourage the formation of independent transmission companies or state investment funds that could step in to build those transmission facilities that a regional planning process determined were needed to serve consumers where the local vertically integrated utilities were not willing to step up to the bar.<sup>48</sup>

<sup>47</sup> On the other hand, the open-access vision of the industry suggests that the costs of transmission upgrades required to serve consumers outside the local region should not be borne by consumers within that region. They should either be rolled into a regional rate in the region whose consumers are benefited or participant funded by the company that requests the upgrade.

<sup>48</sup> Note that these approaches cannot work without a rolled-in approach to cost recovery and cost allocation. Private investors will not invest in

Finally, the open-access vision also suggests that congestion management should not be permitted to undermine the ability of LSEs to obtain long-term transmission access at a predictable price. That rules out LMP. No approach to FTR allocation and trading has yet given the industry comfort that they can fully hedge their transmission costs. Transmission customers will continue to need to maintain their physical rights to the transmission system.

This does not, however, leave transmission operators without congestion management tools other than TLRs. Transmission providers have long had the ability to engage in central dispatch and redispatch of generation in to relieve transmission capacity. Even before they moved to Day-2 markets, the tight power pools in the Northeast and MidAtlantic were able to redispatch the generation in their region and to assign the redispatch costs to those entities that wanted to engage in a transaction for which there would not otherwise be sufficient transmission capacity.

As they evolve, the Midwest ISO, and new ISOs in other regions will be able to move in this direction without the transaction costs and time delays that would be required to move the next step to market-based congestion management. In doing so, they can satisfy the 80-20 rule, obtaining most of the value of such market-based congestion management approaches without the enormous cost required to capture the last measure of efficiency.

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*This article reflects the views of Mr. Morrison and does not necessarily represent the views of NRECA or its members.*

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transmission facilities or upgrades without receiving some assurance they will recover their investment and a reasonable return.