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I. Introduction

It is now three years after FERC promulgated Order No. 888 and required “functional unbundling,” yet U.S. electric utility markets are a mess. Power outages and prices spikes are common, the industry is undergoing a massive attempt to reconcentrate, new investment in transmission facilities is down by almost half, and regulatory intervention at both the federal and state level has continued to increase significantly. Obviously (and tragically), consumers have yet to enjoy the societal benefits of de-regulation and competition so vigorously promised to them by government officials.

Naturally, with such a total failure in public policy-making, government officials are now scrambling to point fingers at everyone but themselves to assign blame for the deteriorating performance of the U.S. electric utility industry. The current panacea du jour is to have FERC arbitrarily divide the country into regional geographic districts and to require all utilities to join some kind of regional grid institution by year-end. Moreover, there is growing support to

* President, Phoenix Center for Advanced Legal and Economic Public Policy Studies. The views expressed herein are strictly exclusively those of the author alone, however, and do not reflect the views of the Phoenix Center or any of the Center’s individual Adjunct Fellows or Editorial Board Members.

1 See, e.g. September 17, 1998 Remarks of FERC Chair James Hoecker before Sixth DOE/NARUC National Electricity Forum (describing current morass as the “dog days of de-regulation”) (hereinafter “Hoecker Sept. 17th Remarks”).

2 See Notice of Delegation and Assignment under Section 202(a) of the Federal Power Act, 63 Fed. Reg. 53,889 (Oct. 7, 1998) (DOE Secretary Bill Richardson delegating FERC authority under (Footnote Continued . . . .)
extend Order No. 888’s “functional unbundling” requirements to retail transmission facilities as well.\(^3\)

What these pundits and politicians do not understand, however, is that so long as FERC ignores basic fundamentals of transaction cost economics, FERC’s restructuring efforts are doomed to produce perpetually poor market performance. That is to say, FERC’s restructuring paradigm is built primarily on two flawed assumptions: (1) firms will never be able to produce efficiently on an integrated basis; and, as such (2) FERC − via regulatory mandate and massive government intervention − can create both sua sponte and sui generis efficient input markets (i.e., “unbundled” transmission and bulk power markets). Until these significant analytical defects are fixed, therefore, any talk of unilaterally imposing mandatory regional grid institutions is simply pre-mature and a political “red herring” at this time. Indeed, contrary to recent statements by FERC officials, the fundamental problem with current restructuring efforts is not the lack of mandatory of RTOs per se, but the fact that mandatory RTOs − in whatever form they may take (ISOs, Transcos, Gridcos, etc.) − when coupled with FERC’s other flawed efforts to restructure the U.S. electric utility industry, are a very inefficient way to organize the market. Faced with this reality, therefore, FERC should abandon its aggressive attempts at transmission “central-planning” and return to economic first principles before the proverbial “eggs” are too far scrambled to repair.

Section 202(a) of the FPA to divide country into regional transmission districts); see also Hoecker, supra n. 1 (announcing his intention to initiate and complete a generic proceeding that will “vastly accelerate the establishment of ISOs or transcos, as appropriate, in every region of the country.”); DeAnn Weimer, Commentary: Don’t Be Shocked By Surges In The Price Of Power, BUSINESS WEEK (July 27, 1998) at 33, arguing that whether or not the recent price spikes were caused by utilities (AEP mentioned specifically) engaging allegedly anticompetitive conduct, is better left for “regulators to decide.” However, while they’re at it, comments Weimer, it time for regulators to make sure that owners of the transmission grid can’t hold customers and competitors hostage by exploiting artificial bottlenecks to drive up prices or prevent access to alternate power sources. The solution: an expanded network of independent system operators, similar to one established on Mar. 31 in the deregulated California market. These ISOs' job is to avoid brownouts and blackouts by acting like air-traffic controllers for electricity. In California, the ISOs have maintained reliability even though that state, too, has experienced price spikes.

\(^3\) See October 1, 1998 remarks by FERC Commissioner William H. Massey (http://www.ferc.gov/Intro/oed/cont-mass10-1.pdf) (citing with apparent approval petition for rulemaking filed by ELCON and others that the transmission component of bundled retail transactions also be subject to the comparability standards in Order No. 888).
To illustrate this point, this paper first outlines briefly the basic concept of transaction cost economics, and highlights the various types of situation where vertical integration is appropriate and where it is not. Next, this paper analyzes the four primary components of FERC’s attempt to “fundamentally unbundle” the industry, and shows why − from a transaction cost standpoint − FERC’s vision is a very inefficient way to organize the market. Following this discussion, this paper presents startling evidence showing the adverse effects of FERC’s current flawed restructuring paradigm on consumer welfare. Finally, this paper sets forth several constructive solutions to help FERC move the process forward in a positive and constructive manner.

II. Basic Economic Concepts

A. The Concept of Transaction cost Economics

Transaction cost economics attempts to determine optimal (i.e., most efficient) institutional organizational arrangements that minimize transaction costs under different sets of circumstances.4 Transaction cost economics is based on the cognitive assumption of “bounded rationality” − i.e., economic actors are assumed to be “intendedly rational, but only limitedly so.”5 Confronted with the realities of “bounded rationality,” therefore, decision-makers need to consider expressly the costs of planning, adapting, and monitoring transactions when analyzing a market. Stated another way, there is no such thing as a “one-size-fits-all” solution − decision-makers must determine which governance structures are the most efficacious for individual transaction. (Obviously, all things being equal, modes that make large demands against cognitive competence should be relatively disfavored.)6

For this reason, transaction cost economic submits that corporate internal governance (a “firm”) and markets are alternative methods of resource allocation and, therefore − depending on given factual circumstances − the most efficient organization of a business would be either: (a) to enter the market and contract

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5 Id. at 45 (emphasis in original).
6 Id. at 46.
with other businesses for goods and services on a transaction-specific basis; or, alternatively, (b) bring transactions “out of the market” and “into a firm” (i.e., either produce these goods and services on an integrated, in-house basis or, to a lesser extent, enter into long-term supply contracts that effectively achieve the same goal). To make this determination, every transaction can be viewed through three criteria:

(1) How often is the transaction to be carried out? If the transaction is to be carried out with great frequency, then perhaps it is better to bring the transaction into the firm (e.g., the need for skilled labor or a reliable and inexpensive source of bulk power). On the other hand, if the transaction is infrequent (e.g., new plant construction), then the most efficient allocation of resources would be to go into the market and complete the transaction by contract.

(2) Asset Specificity – i.e., how unique is the asset to facilitate a particular transaction? Again, the more specific the asset (i.e., sunk generation facilities, bulk power lines), the more sense it makes to bring the asset out of the market and into the firm. Conversely, the less asset specificity is required (e.g., emergency power), then it is more efficient for a firm to conduct the transaction in the open market.

(3) Degree of Uncertainty – i.e., how big is the risk? Intuitively, if the risk is large, then vertical integration into a firm is the more efficient organization of the business. If the product is fungible and easily replicated, however, then the more efficient organization of the business is to conduct the transaction in the open market. Thus, just as above, given the severe repercussions of failing to meet stringent “obligation to serve” mandates, it is more efficient for utilities to ensure reliable power either via integration or by long-term contract, rather than by purchasing the majority of their base-load power on an hourly or daily basis. Conversely, if a utility has conducted its load forecasts accurately, then the risk that it will have insufficient power to meet demand will be small, and therefore it will be more efficient for the utility to purchase emergency power on a individual case-by-case basis.

B. The Concept of Structural Separation

Accordingly, as a general economic matter, there is absolutely nothing wrong will vertical integration in and of itself. Vertical integration can allow a firm to realize many types of efficiencies, such as:
(1) Economies of scale and scope;
(2) Eliminating free-rider problems;
(3) Spreads risk of investing/losing sunk costs;
(4) Coordination in design and production; and
(5) Eliminates double mark-up of costs.

Notwithstanding the above, sometimes businesses do not seek to vertically integrate to maximize efficiencies (e.g., economies of scale and scope) — rather, they engage in strategic integration as an entry-deterring strategy. Anticompetitive harms resulting from this type of strategic vertical conduct can include, but certainly not be limited to:

(1) raising rivals’ costs;
(2) forcing rivals’ to enter at two levels;
(3) input foreclosure;
(4) cross-subsidy/predation; and
(5) a “price squeeze.”

Thus, because vertical integration has both costs and benefits, policy makers need to focus are those specific situations where the economic costs of vertical integration outweigh the efficiencies gained from such integration. If the costs outweigh the

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7 See James Olson & Lawrence Spiwak, Can Short-Term Limits on Strategic Vertical Restraints Improve Long-Term Cable Industry Market Performance? 13 CARDOZO ARTS & ENT. L.J. 283, 292-295 (1994).

8 See id. passim and citations therein, FERC M e rger Analysis Post-Order No. 888: Where do we go From Here? PHOENIX CENTER POLICY PAPER SERIES No. 3 (August 1998) at 25-37 (http://www.phoenix-center.org/pcpp/pcpp3.doc); see also October 15, 1991 Comments of the United States Department of Justice in response to FERC’s Notice of Proposed Rulemaking in Docket No. RM91-11-000 (In re Pipeline Obligations and Revisions to Regulations Governing the Self-Implementing Transportation Under Part 284 of the Commission’s Regulations) at 29-35 where the DOJ specifically warned FERC that without carefully examining the structural characteristics of the market, “[m]andatory unbundling and comparability requirements may impair [the] efficiency” of the market because, inter alia, “[e]conomic theory suggests that certain functions are most... (Footnote Conti...
benefits, then some type of functional unbundling/structural separation may be appropriate.\(^9\)

For example, because utilities have an obligation to always seek out the lowest source of power for their respective native loads, there is great merit to forcing vertically-integrated utilities to involuntary “disaggregate” if cheaper (i.e., more efficient) generation sources are available. In this situation, the benefits of disaggregation clearly would exceed the benefits of vertical integration. This process is goes on nearly every day in “prudence” revue proceedings around the country.

If structural separation is appropriate, however, then policy-makers must understand that structural separation is not a homogenous regulatory or antitrust enforcement tool. Rather, like all forms of economic regulation, structural separation is question of degree: the stricter the regulatory requirement of “separateness,” the higher the cost to the regulated firm. As such, depending on the specific regulatory harm to be mitigated, or particular long-term market structure regulators may want to achieve, “structural separation” generally takes on four primary forms (each of which is listed in order of most significant economic costs to least imposed economic costs) as individual circumstances warrant: (1) “line-of-business” restrictions; (2) mandatory separate subsidiaries with outside equity participation; (3) wholly-owned separate subsidiaries; and (4) mandatory separate corporate divisions. As a regulatory alternative to strict structural separation, however, it is also possible to impose strict accounting requirements accompanied by various conduct restrictions or mandates.\(^10\)

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\(^9\) Indeed, this is the very analytical heart of the Mobile-Sierra Doctrine. See Phoenix Center Policy Paper No. 3, id. at 13-14.

\(^10\) Antitrust, the “Public Interest” and Competition Policy: The Search for Meaningful Definitions in a Sea of Analytical Rhetoric, Antitrust Report (Matthew Bender, December 1997) (hereinafter “The Search for Meaning”) at n. 36.
III. How FERC Fails

Given the transaction cost economic criteria discussed supra, no one should be shocked about how and why the structure of the U.S. electric utility industry emerged over the last century. Quite frankly, given the huge sunk costs inherent to the electric industry, coupled with the long-standing societal goal — not to mention the pervasive and omnipotent regulatory regime enforcing this policy goal — of ensuring reliable service at just and reasonable rates, the historical structure that emerged — ceteris paribus — was simply the most efficient way to allocate resources and operate a significant portion of the grid.\footnote{Indeed, notwithstanding the discussion above, it is also very important to remember that while the national grid is interconnected, its operational characteristics are not homogeneous. Thus, unlike the majority of the country, where generation is located relatively close to load — i.e., generation comes from a wide variety of sources and is distributed over a large geographic area — there are several areas (mostly out west) where “ unbundling” might be appropriate because generation is neither located even remotely near, nor is intended to serve, a particular utility’s load. See Utility Entry Into Telecommunications: Exactly How Serious Are We? \textit{PHOENIX CENTER POLICY PAPER SERIES NO. 1} (July 1998) at 18, n. 42 (\url{http://www.phoenix-center.org/pcpp/pcpp1.doc}).}

FERC now wants to change this structure by forcing utilities to bring transactions out of the firm and into the market via “fundamental unbundling” — i.e., by forcing utilities to disaggregate to one degree or another their generation from their transmission facilities. FERC hopes to achieve this goal by requiring, inter alia: (1) “network” open-access service; (3) mandatory homogeneous pro forma transmission tariffs and price posting; (3) incremental pricing of transmission service; and (4) the creation of regional transmission institutions. The question that must be asked, therefore, is whether FERC’s intended “restructured” market — using the criteria and framework set forth above — will be more efficient (i.e., make consumers better off by producing lower prices and more innovation) than the current status quo. A strong argument can be made — viewing FERC’s restructuring efforts in toto — that it will not.

A. Order No. 888 and FERC’s Concept of “Functional Unbundling”

wholesale services is “necessary to implement non-discriminatory open access transmission.” In FERC’s view, however, “fundamental unbundling” did not mean (at least at that time) total corporate divestiture. FERC explained that, in its view, “functional unbundling” means three things:

1. A public utility must take transmission services (including ancillary services) for all of its new wholesale sales and purchases of energy under the same tariff of general applicability as do others;

2. A public utility must state separate rates for wholesale generation, transmission, and ancillary services; and

3. A public utility must rely on the same electronic information network that its transmission customers rely on to obtain information about its transmission system when buying or selling power.

According to FERC, these requirements ostensibly will “give public utilities an incentive to file fair and efficient rates, terms, and conditions, since they will be subject to those same rates, terms, and conditions.” (Emphasis supplied.)

Significantly, however, FERC reasoned that ISO’s were not required in all circumstances to achieve “functional unbundling.” Nevertheless, FERC did state that it saw “many benefits in ISOs, and encourage[d] utilities to consider ISOs as a tool to meet the demands of the competitive marketplace.” (In other words, form an ISO or face the consequences of an irate regulator.) Similarly, FERC took great pains to state that it was not requiring any one particular form of corporate

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13 See Order No. 888 (“corporate unbundling should not now be required.”). It should be noted, however, that FERC’s legal authority to mandate total corporate divestiture — especially in light of FERC’s legal justification of Order No. 888 in the first instance — is questionable at best. See Phoenix Center Policy Paper No. 1, supra n. 11 at n. 14 and citations therein.

14 Contrary to FERC’s belief, however, “fair” is neither a word mentioned in the Federal Power Act nor recognized as a legitimate concept in the economic literature. See The Search for Meaning, supra n.10 at 21 (“Fair . . .should just be another obscene four-letter word” that begins with the letter “F.”)
unbundling, FERC stating that it wanted to “encourage utilities to explore whether corporate unbundling or other restructuring mechanisms may be appropriate in particular circumstances” and, as such, it would “accommodate other mechanisms that public utilities may submit, including voluntary corporate restructurings (e.g., ISOs, separate corporate divisions, divestiture, poolcos), to ensure that open access transmission occurs on a non-discriminatory basis.”

B. FERC’s Implementation of “Functional Unbundling”

1. “Open-Access” Must be Provided on a “Network” Service Basis

A key component of FERC’s attempt to force transactions out of the firm and into the market is its belief that “Open-Access” must be on a “network-service” − rather than on a “point-to-point contract-path” − basis. In this way, FERC is attempting to turn electricity into a fungible “commodity,” much like wheat or pork bellies. FERC officials such as Chair Hoecker believe that such a transformation is wholly possible because “[t]echnology has enhanced the ability of multiple power suppliers . . . to use the same set of wires to transmit and distribute electricity and to sell electricity from more strategically placed (and less regulated) generation assets over larger and larger geographic areas.” However, while technology has certainly enabled utilities to operate the national

15 More striking, however, is that FERC inadvertently revealed that it truly does not understand the industry it is charged with regulating, as FERC actually concluded “that the additional step of functionally unbundling the distribution function from the transmission function is not necessary at this time to ensure non-discriminatory open access transmission.” Thus, despite continuous admonitions to the contrary, FERC apparently continues to believe erroneously that there is a clear line of demarcation between transmission and distribution just like a city gate in the gas context or switch in the telephone context.

16 See December 9, 1998 Remarks by FERC Chair James Hoecker Before the 30th Annual Conference of the Institute of Public Utilities (http://www.ferc.fed.us/intro/oea/hoec12-9.pdf) (hereinafter “December 9 Remarks”) (“Technology has enhanced the ability of multiple power suppliers, for instance, to use the same sets of wires to transmit and distribute electricity and to sell electricity from more strategically placed (and less regulated) generation assets over larger and larger geographic areas.”);
grid in a more efficient manner, technology has not progressed so far as to render both the laws of physics and economics meaningless.\textsuperscript{17}

Specifically, electricity is not a “commodity” in the conventional sense of the term, such as wheat, pork bellies or frozen concentrated orange juice. It cannot be stored, stacked, or even touched; rather, because under the laws of physics electricity always seeks to follow the path of least resistance, electricity may only either be used or lost (i.e., “grounded”). As such, there is no clear point of demarcation between the interstate transmission and local distribution facilities of a utility’s network. Indeed, a utility’s network is more than just a grid system of powerlines. A utility network is a complex infrastructure with a large investment in monitoring and operating equipment with its associated communications networks and computers. To wit, power problems in Arizona can require instant and accurate operations in the Northwest to prevent a West Coast blackout.\textsuperscript{18} Electricity is, therefore, probably better characterized as a “network product” that exists only as a function of the capacity and condition of the network itself.\textsuperscript{19}

More important, however, are FERC and other Clinton Administration officials’ erroneous perceptions that all network industries somehow have

\begin{footnotesize}
\begin{enumerate}
\item See Three Reasons Why Utilities Need Telecommunications Expertise - Whether They Like it or Not, INFRASTRUCTURE, American Bar Association, Section of Public Utility Law (Spring 1998) (hereinafter “Three Reasons”) (“[V]arious public policy officials—including FERC, the states, and even regulators abroad now—believe apparently that by using telecommunications technology, firms can somehow monitor and dispatch this “commodity” (i.e., each electron on the national grid) directly from the turbine’s magnets straight to each residential consumer’s doorstep.”)
\item Jerry A. Sturdivant, Power Deregulation is the Road to Ruin, THE COLOMBIAN, July 24, 1997 (op-ed section).
\item Indeed, in a true commodity market a purchaser actually buys a tangible product. Thus, after a commodity is purchased, the buyer must be able to either immediately resell the commodity, or have some specific place arranged to hold the commodity before it can be used or resold. If the purchaser neglects to arrange a storage destination for the commodity, however, then (as actually happened to my good friend’s grandfather) the buyer may get an unexpected phone call in the middle of the night to come pick up two loads of pork bellies from the yard. Yet, unless we are all suddenly supposed to be bound by the laws of Sir Fig Newton, rather than his brilliant and apple-loving brother Sir Isaac, it is unclear how one is supposed to pick up a truckload of raw bulk power.
\end{enumerate}
\end{footnotesize}
identical, homogenous structural characteristics. This assumption simply isn’t true.

To wit, FERC’s view of “network service” comes from a misunderstanding of how a telephone network works. FERC thinks that under a “network service” regime, utilities would effectively operate their networks like a phone network on a “common carrier” basis and provide non-discriminatory access to all comers. While FERC is partially correct in that a phone network, as a “common carrier” must take call comers, this is not how a telephone network operates. A telephone network actually is the ultimate point to point service, because a switched telephone call literally creates a single line between the conversants. Moreover, the advent of the Internet and “packet switching” does not change this reality, because even in the new wave of “non-switched” telecommunications technology, the information “packets,” unlike electrons, have specific destinations assigned to them. In contrast, FERC’s view of “network” service — unlike “point-to-point” service — basically permits one or more rivals to dictate how the actual owner of the utility network operates and dispatches its network. Yet, because of all of the difficult elements (i.e., loop flow, spinning reserve, line loss, etc.) inherent to a functioning grid (remember, energy follows the path of least resistance), allowing multiple rivals — who are often geographically separated and therefore have very different demand and cost characteristics — to de facto dispatch another’s system has a direct effect on optimal system efficiency and reliability.

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20 See, e.g., FERC Chair Hoecker’s December 9, 1998 Remarks, supra n. 16 passim.

21 For a detailed exegesis about the differences between telecoms networks and electricity networks, see Phoenix Center Policy Paper No. 1, supra n. 11 at 3-21.

22 Readers’ Note: There is also one other significant reason why Congress classified telecoms companies as common carriers that has nothing at all to do with “network access” – i.e., as a “common carrier,” telecoms companies are not responsible for the content provided/transmitted by third-parties over their networks. In today’s world of the Internet and broadband communications, such immunity is even more crucial than ever.

23 See Three Reasons, supra n. 17 at 14, n. 24.

24 Phoenix Center Policy Paper No. 1, supra n. 11 at 14-15.
2. Mandatory Pro Forma Transmission Tariffs and Price Posting

Another significant component of FERC’s attempt to force transactions out of the firm and into the market is FERC’s requirement that everyone (except certain utilities with few or no transmission facilities) to file homogeneous pro forma transmission tariffs.25 (Again, FERC’s goal is to turn electricity into a fungible “commodity” that can be bought and sold on an “open” market.) In doing so, FERC has basically stated that in its view, government − via stringent regulation − can better (i.e., more efficiently) allocate resources over the long-term than parties can through private negotiation.26 Again, as our friends in the former Soviet Union can attest, such an economic proposition isn’t true.

Moreover, FERC’s policy flies in the face of the core purpose of the Mobile-Sierra Doctrine, which, at bottom, establishes a standard to determine appropriate case-by-case situations where − as a public policy matter − firms should be permitted to integrate or government should force transactions into the market.27 Indeed, as a general proposition, it is perfectly legitimate for government to intervene (either by regulation or antitrust) if the economic costs imposed by a long-term contract outweigh the efficiencies created by the

25 Moreover, as argued in earlier papers, it is very unclear how mandated homogeneity will result in dynamic economic efficiencies in the long-run. See id. at 31. It is nice to see, however, that FERC officials have finally, albeit unwittingly, conceded this point as such (even though they have yet to fix this problem). See FERC Chair Hoecker Delivers Scary Halloween Message for Industrials, FOSTER ELECTRIC REPORT, No. 125 (Nov. 5, 1997) (reporting that FERC intends to “expand upon certain themes” such as “considering whether to revise or enlarge the pro forma tariffs to allow for product and service innovations”).

26 FERC’s hostility to anything long-term is completely in accord with FERC’s recent surreptitious policy to abrogate all privately negotiated, long-term contracts in its neo-competitive effort to “level the playing field.” See, e.g., City of Bedford, Virginia et al., 64 FERC (CCH) ¶ 61,381 (1993) (Commissioners Hoecker and Santa dissenting).

27 Indeed, FERC has made several official statements that are outright hostile to the notion of vertical integration in general and indeed appears that FERC considers vertical integration to be per se anticompetitive. For example, in FERC’s pending Merger NOPR, Revised Filing Requirements Under Part 33 of the Commission’s Regulations, Notice of Proposed Rulemaking, Docket No. RM98-4-000, 83 FERC (CCH) ¶ 61,027; 63 Fed. Reg. 20,340 (April 24, 1998), FERC makes absolutely no mention whatsoever about the efficiency enhancing characteristics of vertical integration, but instead states matter-of-factly that “vertical mergers do not directly eliminate a competitor from the market but may create or enhance the incentive for the merged firm to adversely affect prices and output in the downstream electricity market.” See PHOENIX CENTER POLICY PAPER NO. 3, supra n. 8 at 25.
This situation often referred to as a “policy relevant barrier to entry,” and is the very root of the FCC’s program access policies and the “public interest” exception to the Mobile-Sierra doctrine set forth in Papago. In order to determine whether a long-term contract is a “policy-relevant” barrier to entry (and, a fortiori, whether government should seek to abrogate the contract), FERC must:

engage in a cost-benefit analysis that identifies, inter alia: (1) all possible economic efficiencies, if any, that might result from the presence of the barrier to entry; (2) all offsetting economic efficiencies that might be attributable to the barrier to entry, if any; (3) all relevant positive and negative network externalities; and (4)

28 Indeed, exclusive distribution contracts have long provided fertile grounds for protracted antitrust litigation. See generally, Olson & Spiwak, supra n. 7.

29 Id.

30 See United Gas Co. v. Mobile Gas Corp., 350 U.S. 332, 339-343 (1956); FPC v. Sierra Pacific Power Co., 350 U.S. 348, 353-55 (1956). Under the Mobile-Sierra doctrine, an administrative agency has the power to prescribe a change in contract rates when it finds them to be unlawful, and to modify other provisions of private contracts when necessary to serve the public interest. See Western Union Telegraph Co. v. FCC, 815 F.2d 1495, 1501 (D.C. Cir. 1987). As Judge Bork once explained,

Although the legal standard for changing contract rates (they must be “unlawful”) differs from the standard for changing other contract provisions (they must disserve “the public interest”), in fact the two standards are not very different. Before changing rates, the Commission must make a finding that they are “unlawful” according to the terms of the governing statute, which typically requires a finding that existing rates are unjust, unreasonable, unduly discriminatory, or preferential. But as the Supreme Court recognized in Sierra, complaints about existing rates do not concern the Commission unless the problems raised are sufficiently serious to “adversely affect the public interest.” Id. at 1501, n. 2 (citations omitted).

31 Papago Tribal Authority v. FERC, 723 F.2d 950, 954 (D.C. Cir. 1983), cert. denied, 467 U.S. 1241 (1984); but cf., Northeast Utilities Service Company v. FERC, 55 F.3d 686 (1st Cir. 1995) (“We do not think that Papago, read in context, means that the ‘public interest’ standard is practically insurmountable in all circumstances. It all depends on whose ox is gored and how the public interest is affected.”).
the estimated economic cost of eliminating the barrier to entry or minimizing its effects.\textsuperscript{32}

The problem is that FERC has never conducted the analysis referenced above. Instead, it has made a determination that, in its opinion, there are absolutely no circumstances where it might be more efficient for parties to integrate via long-term contract.\textsuperscript{33}

FERC exacerbates this position by requiring all utilities (with few exceptions) to post their prices for transmission (OASIS) – just as in any other type of “traditional” commodities trading floor. However, as even a cursory look at the economic literature would reveal, tariffing is one of the most effective price signaling mechanisms available.\textsuperscript{34} Thus, having rivals post their prices, coupled with the deliberate creation of a market which is also characterized by: (1) an increasingly diminishing number of such rivals as the industry further concentrates; (2) very unsophisticated customers; (3) extremely inelastic supply; and (4) a very homogeneous product in an industry that is clearly not characterized by rapid technological change and innovation, we should not be very surprised if we end up with an oligopoly that can successfully engage in tacit (if not outright explicit) collusive pricing behavior.\textsuperscript{35}


\footnotetext{33}{See PHOENIX CENTER POLICY PAPER NO. 3, supra n. 8 at 24-37.}

\footnotetext{34}{Indeed, as the FCC recognized nearly twenty years ago:}

\begin{quote}
Tariff posting ... provides an excellent mechanism for inducing noncompetitive pricing. Since all price reductions are public, they can be quickly matched by competitors. This reduces the incentive to engage in price-cutting. In these circumstances firms may be able to charge prices higher than could be sustained in an unregulated market. Thus, regulated competition all too often becomes cartel management.
\end{quote}

See Competitive Carrier Further Notice, 84 F.C.C.2d 445 at ¶ 26-27 (1981); see also Reorienting Economic Analysis, supra n. 32 at 35, & nn. 27-30 and citations therein.

\footnotetext{35}{See generally, Phillip Areeda & Herbert Hovenkamp, \textit{Antitrust Law: An Analysis of Antitrust Principles and Their Application} (1995). Moreover, it is highly likely that this structure will bring an increased risk of antitrust scrutiny from enforcement agencies and other interested parties. Indeed, it is quite unclear why on one hand FERC basically believes it can force the industry to coordinate their pricing and access strategies (e.g., ISOs and power pools) yet at the...}
3. Transmission Must be Priced on a Short-Run Marginal Cost Basis

The third major component of FERC's attempt to force transactions out of the firm and into the market is FERC's decision to price transmission at short-run marginal cost. (In this way, the "commodity" — electricity — can be bought and transmitted over great distances in the least-expensive fashion.) The problem with this approach is that, despite the theoretical advantages of marginal-cost pricing for short-run transmission transactions, from a transaction cost economics perspective, such an approach ignores the significance of asset specificity (i.e., the huge sunk costs) inherent to both interstate transmission and bulk power generation facilities. Indeed, as Williamson himself stated, while "[i]t is common to distinguish between fixed and variable costs, . . . this is merely an accounting distinction. More relevant to the study of contracting is whether assets are redeployable or not."36 In doing so, therefore, FERC has sent a strong signal that it believes that while it might be appropriate to view generation from a dynamic perspective, it is nonetheless wholly appropriate to view transmission from a static and unchanging perspective and, moreover, that existing transmission capacity (which, as demonstrated infra, is already highly constrained) is a fortiori sufficient to meet current and future demands.37

Wrong. Just under five years ago, the Antitrust Division of the U.S. Department of Justice specifically warned FERC that FERC's erroneous belief that it is possible to live "at the margin" creates significant adverse public policy implications and, as such, the Department specifically "recommend[ed] that the Commission not dictate such pricing."38 DOJ set out a plethora of reasons in

same time apparently believe that they can "sprinkle" these activities with some kind of "antitrust immunity."

36 Williamson, supra n. 4 at 54 (emphasis supplied).

37 See The Search for Meaning, supra n. 10 at 12 (If we have learned anything from history, is that it is impossible to have 'competition without change.'”)

38 See Nov. 4, 1993 Comments of the U.S. Department of Justice in Response to Notice of Technical Conference and Request for Comments, Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act, FERC Docket No. RM93-19-000 (hereinafter “DOJ Comments”) at 9; and c.f. AT&T Corp v. Iowa Utilities Board et al., ___ S.Ct. ___ , Nos. 97-826 et seq. (Decided Jan. 25, 1999) where the Supreme Court overturned the FCC's order requiring incumbents to provide requesting carriers with unfettered access to a minimum of seven network elements under Section 251(d)(2) of the Telecommunications Act of 1996, holding that the FCC's over-broad:

(Footnote Continued . . . )
support of this recommendation, including, but not limited to, the basic economic facts that:

(1) The revenue produced by short-run marginal cost pricing may fall well short of total costs and, in that event, the use of marginal-cost would necessitate subsidies to transmission owners and such subsidies are unlikely to be forthcoming.  

(2) Marginal congestion costs are not easily measured, because they would have to be assessed for all lines at all possible times and are likely to fluctuate widely depending on the time of year and time of day. As such, the administrative costs of making these assessments would be “considerable.”

(3) Transmission pricing has an option value and, as such, a utility that maintains transmission capacity for economy transactions should not be required to use that capacity to serve someone else — long-term or short-term — unless the compensation exceeds the expected value of the capacity in making economy transactions.

assumption that any increase in cost (or decrease in quality) imposed by denial of a network element renders access to that element “necessary,” and causes the failure to provide that element to “impair” the entrant’s ability to furnish its desired services is simply not in accord with the ordinary and fair meaning of those terms. An entrant whose anticipated annual profits from the proposed service are reduced from 100% of investment to 99% of investment has perhaps been “impaired” in its ability to amass earnings, but has not ipso facto been “impair[ed] ... in its ability to provide the services it seeks to offer”; and it cannot realistically be said that the network element enabling it to raise its profits to 100% is “necessary.” In a world of perfect competition, in which all carriers are providing their service at marginal cost, the Commission’s total equating of increased cost (or decreased quality) with “necessity” and “impairment” might be reasonable; but it has not established the existence of such an ideal world.

(Footnote omitted and emphasis supplied.)

39 Id.

40 Id.

41 Id.
Given the above, the DOJ warned that any attempt by FERC impose short-run marginal-cost pricing would produce significant harm to overall consumer welfare in several significant respects. For example, such a pricing policy would result in “rates that are uncompensatory and that send inappropriate signals.” As the DOJ tried to explain to FERC:

Investments in existing transmission facilities are “sunk;” the capacity will not leave the industry if rates fall to the level of line losses or even below that level. Rates that low would seriously undermine the incentive to make new investments in transmission, and efficient long-term transactions, which are vital to competitive markets for bulk power, could be precluded by the lack of available capacity. Moreover, if prices for short-term transactions were well below those for long-term transactions, there would be significant substitution from long-term to short-term transactions to take advantage of the price differential. Thus, in addition to not being compensated for congestion costs and loss option value, utilities also might not be compensated for capital costs associated with transactions that are, in truth, long-term.42

Unfortunately, however, the parade of horrors does not end here. As the DOJ further explained to FERC,

If prices for short-term transactions were set to low, there would also be a need for some sort of non-price rationing of capacity at certain times. The Commission would have to determine on an hourly basis how much capacity each utility must make available to others rather than to serve native-load customers. The administrative costs would be substantial, and significant inefficiencies likely would result from inevitable errors of judgment.43

Leading economists agree. For example, David Evans and Richard Schmalensee write that in network industries characterized by high fixed costs and low marginal costs such as the electric utility industry:

42 Id. at 10 (emphasis supplied).
43 Id. (emphasis supplied).
Firms that price at marginal cost would not recover their fixed costs, which are often the costs of developing innovative new products and services. To survive, they have to price well in excess of marginal cost. And, since they are making a profit at the margin on almost every unit, they often engage in price discrimination. Volume discounts, special deals, and complex pricing systems are common.\textsuperscript{44}

Accordingly, it should not take a rocket-scientist to figure out that whenever regulation prohibits firms (either incumbents or, assuming "total unbundling," an "independent Transco/Gridco) from either recovering the full costs of their sunk investments (FERC’s transmission pricing policy) or from engaging in legitimate discrimination to grow market share (FERC’s homogeneous pro forma tariff requirement), the regulated firm will not find it in its interest (no matter what the overall business opportunity) neither to invest in additional facilities nor to reduce costs and innovate to compete vigorously for new customers. Quite to the contrary, given the huge network externalities and assets specificity inherent to the electric utility industry (average system cost pricing to name the most obvious), FERC’s policies instead provide the owners of transmission facilities with the irrational (and anticompetitive) incentive to engage in entry deterring strategies to protect whatever sunk assets possible.\textsuperscript{45} Thus, so long as FERC maintains such an irrational pricing policy, neither “functional unbundling” nor even "total unbundling" (i.e., complete divestiture of transmission assets) will ever produce good market performance.

\textsuperscript{44} David Evans and Richard Schmalensee, \textit{A Guide to the Antitrust Economics of Networks}, 10 \textbf{ANTITRUST} 36 (Spring 1996) at 38 (emphasis supplied). Indeed, it is unclear how such legitimate discriminatory conduct rises to the level of FERC’s level of “undue” in Order No. 888.

\textsuperscript{45} See \textit{Phoenix Center Policy Paper No. 1}, supra n. 11 at 21:

In the utility context, the more users a utility has on its grid, then the more the utility can spread the costs of maintaining the network among its customers — i.e., the more customers on the grid, the lower the capacity charge per customer. However, if a large requirements customer decides to leave the system, then this customer’s prior contribution to the network will now have to be incurred or “shared” by the other users of the network. Such action can possibly create the feared “death spiral” — i.e., if rates go up, perhaps other customers will elect to bolt from the network, again leaving the remaining users of the network to incur additional shared costs, which will then prompt other consumers to leave the network, causing the remaining users’ costs to rise, and so on.
4. FERC’s ISO Principles

The last prong of FERC’s attempt to force transactions out of the firm and into the market is FERC’s not-so-subtle hints that it wants all utilities to join some sort or regional grid institution generically, and an ISO in particular by the end of 1999. In this way, FERC would create a giant “faux” commodities trading floor. (Naturally, FERC also made explicitly clear to the industry that any ISO will be a public utility subject to its jurisdiction and, as such, the Commission must approve any ISO’s operating standards and procedures.)

To facilitate this end goal, FERC set out eleven principles it stated it would use to assess whether an ISO proposal was “properly-structured.” FERC made clear in Order No. 888 that these principles were “applicable only to ISOs that would be control area operators, including any ISO established in the restructuring of power pools” and did not apply to “independent administrators or coordinators that lack operational control” (because, according to FERC, it did “not have enough information at this time to offer guidance about such entities, but recognize[d] that they could perform a useful role in a restructured industry”). They are:

FERC ISO Principle No. 1: The ISO’s governance should be structured in a fair and non-discriminatory manner.

FERC ISO Principle No. 2: An ISO and its employees should have no financial interest in the economic performance of any power market participant.  

FERC ISO Principle No. 3: An ISO should provide open access to the transmission system and all services under its control at non-pancaked rates pursuant to a single, unbundled, grid-wide tariff that applies to all eligible users in a non-discriminatory manner.

FERC, however, provided a 6 month short transition period for employees of a newly formed ISO to sever all ties with former transmission owners and to make appropriate arrangements for pension plans, health programs and so on. Readers should also note that such micro-management of ISOs at the Federal level has caused great consternation with FERC Commissioners Hebert & Bailey.
FERC ISO Principle No. 4: An ISO should have the primary responsibility in ensuring short-term reliability of grid operations.

FERC ISO Principle No. 5: An ISO should have control over the operation of interconnected transmission facilities within its region.

FERC ISO Principle No. 6: An ISO should identify constraints on the system and be able to take operational actions to relieve those constraints within the trading rules established by the governing body.

FERC ISO Principle No. 7: The ISO should have appropriate incentives for efficient management and administration and should procure the services needed for such management and administration in an open competitive market.

FERC ISO Principle No. 8: An ISO's transmission and ancillary services pricing policies should promote the efficient use of and investment in generation, transmission, and consumption.\footnote{According to FERC, because “appropriate price signals are essential to achieve efficient investment in generation and transmission and consumption of energy”, an ISO’s pricing policies “should reflect a number of attributes”, including:

(a) affording non-discriminatory access to services;
(b) ensuring cost recovery for transmission owners and those providing ancillary services;
(c) ensuring reliability and stability of the system; and
(d) providing efficient price signals of the costs of using the transmission grid.

In particular, the Commission stated that it would consider transmission pricing proposals for addressing network congestion that are consistent with its Transmission Pricing Policy Statement. See Inquiry Concerning the Commission’s Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act, Policy Statement, 59 Fed. Reg. 55,031 (November 3, 1994), FERC Stats. & Regs. 31,05 (1994), order on reconsideration, 71 FERC 61,195 (1995) (Transmission Pricing Policy Statement). Finally, FERC stated that ISO should/must conduct studies – in coordination with coordinate with market participants including RTGs – as “may be necessary” to identify transmission constraints on its system, loop flow impacts between its system and neighboring systems, and other factors that might affect system operation or expansion.}
information network consistent with the Commission's requirements.

FERC ISO Principle No. 10: An ISO should develop mechanisms to coordinate with neighboring control areas.

FERC ISO Principle No. 11: An ISO should establish an ADR process to resolve disputes in the first instance.

C. The Inefficient Organization of the Market

Given the above, therefore, until the major underlying analytical predicates with FERC's restructuring efforts outlined supra are fixed, any talk of forcing mandatory ISOs, Transcos, Gridcos – or any other regional grid institution for that matter – on the industry at this time is just pre-mature and a political "red herring." In fact, it is crucial to understand that there is nothing wrong with the theoretical concept of RTOs per se; Rather the primary problem is the fact that mandatory RTOs – in whatever form they may take (ISOs, Transcos, Gridcos, etc.) – when coupled with FERC's other efforts to restructure the U.S. electric utility industry, are a very inefficient way to organize the market. So long as a market is organized in an inefficient manner, therefore, poor economic performance is inevitable.

Indeed, it is very easy for the neophyte to argue that FERC's eleven ISO principles will produce pro-competitive benefits. After all, each ISO principle,

48 Readers Note: Such a policy raises significant antitrust implications about such concerns as bid-rigging, coordinated actions, group boycotts and refusals to deal. Scholars are mixed as to the level of antitrust immunity ISOs have in this process. C.f. Jade Alice Eaton, State Action and the New Competition: What's a Utility to Do? INFRASTRUCTURE (American Bar Assoc. Summer 1998) at 9; Joshua Z. Rokash, Antitrust in the Electric Utility Industry: Regional Transmission Groups, 15 J. L. COM. 39 (1994).

49 In fact, three of the five ISOs approved to date simply codify long-standing historical tight power pool arrangements where utilities have agreed to coordinate for construction, reliability and load management purposes. See, e.g., New England Power Pool, 79 FERC ¶ 61,374 (1997), reh'g pending (order conditionally authorizing NEPOOL ISO) (NEPOOL I); New England Power Pool, 83 FERC ¶ 61,045 (1998), reh'g pending (order on NEPOOL tariff and restructuring) (NEPOOL II); Pennsylvania-New Jersey-Maryland Interconnection, et al., 81 FERC ¶ 61,257 (1997), reh'g pending (order conditionally authorizing establishment of PJM ISO) (PJM); Central Hudson Gas & Electric Corporation, et al., 83 FERC ¶ 61,352 (1998), reh'g pending (order conditionally authorizing establishment of New York ISO) (Central Hudson).
viewed individually, would probably be considered by most people to be a pro-competitive idea. For example, who can really be against lowering transaction costs by eliminating "pancaked" rates? Similarly, FERC is correct that the wider the control area, the more efficient it is to monitor and dispatch the grid (which is precisely why several utilities operate efficiently as multi-state holding companies).

Yet, if FERC organized the market correctly in the first instance in Order No. 888 and its progeny, then one or more businesses would take it upon itself to build additional transmission capacity to meet the strong, constrained demand and – assuming FERC has done its part to remove regulatory barriers to entry – new investment would occur. As shown by the data set forth below, this conduct simply has not occurred. Quite to the contrary, planned investment in transmission has fallen by nearly 50%, the grid is stretched to its capacity limits,

50 For example, the U.S. Department of Justice is a supporter of the general notion of ISOs, but, as discussed supra, also recognizes the inherent flaws with FERC's overall paradigm. On the other hand, FERC Commissioner Curt Hebert believes that the ISO principles are themselves economically flawed. See Curt Hebert, The Quest for an Inventive Utility Regulatory Agenda, 19 Energy L. J. 1, 7-13 (1998).

51 In fact, if FERC is so concerned about eliminating pancaked rates, FERC need not wait for an ISO, because there is absolutely nothing stopping them from eliminating them right now. FERC has the authority to eliminate pancaked rates through, for example, rate design based upon mileage or network usage rather than adding up the costs of a single system and dividing by some unit. As such, FERC's notion that elimination of pancaked rates is an ISO-specific efficiency is simply specious at best.

52 Indeed, it is quite ironic that Congress recognized nearly seventy years ago that it is perfectly appropriate – and, in fact, specifically required regulators – to permit registered public utility holding companies to continue to control one or more additional integrated public utility systems if, after notice and opportunity for hearing, the regulator finds that under current market structure and conditions:

(A) Each of such additional systems cannot be operated as an independent system without the loss of substantial economies which can be secured by the retention of control by such holding company of such system;

(B) All of such additional systems are located in one State, or in adjoining States, or in a contiguous foreign country; and

(C) The continued combination of such systems under the control of such holding company is not so large (considering the state of the art and the area or region affected) as to impair the advantages of localized management, efficient operation, or the effectiveness of regulation.

(Emphasis supplied.) See PUHCA Sections 11(b)(1)(A)-(C), 79 USC §§ 79k (b)(1)(A)-(C).
and the electric utility industry is undergoing an unparalleled trend in re-
concentration.

Accordingly, if FERC’s paradigms are supposed to produce competition and
de-regulation, then how then can we explain this economic anomaly? Easy: This
classical once again stems directly from FERC deliberate departure from
economic first principles in an improper attempt to achieve naked political goals
and wealth re-distribution. That is to say, FERC does not believe (as it should)
that competition is a means to obtain better market performance through
vigorous rivalry; instead, FERC’s end-goal of “competition” simply means “more
choices” – i.e., the presence of “more competitors” (hence FERC’s static,
iccident-centric perpetual resale paradigm resulting in the proliferation of
power marketers and the reconcentration of IOUs).53 Yet, the only way for FERC
to achieve this goal of “more competitors” is to force every single transaction into
the “market” (i.e., functional unbundling) and out of the firm. What this means,
therefore, is that under FERC’s view of the world, bringing a transaction into the
firm (i.e., integration) a fortiori cannot by definition produce any efficiency
benefits – even though the structure of the market still indicates that some degree of
integration is the most efficient way to allocate resources. This notion simply is not
true. As such, FERC’s flawed paradigm by definition is doomed to produce (and
unfortunately is producing currently) poor market performance and must be
discredited as such.54

Taken one step further, FERC’s arguments become even more specious. As
mentioned supra, FERC does not trust the firm to allocate internally resources
efficiently, so FERC wants to ensure that all transactions occur in the market.

53 This flawed notion of “choices” over tangible rivalry is one of the numerous hallmarks of
the Clinton Administration’s ridiculous Comprehensive Energy Competition. Of course,
considering the Clinton Administration’s plan also believes that electric energy can be marketed,
labeled, and sold in the exact same way as food and nutritional supplements, we really should not
be surprised. See Clinton Administration March 28, 1998 Comprehensive Electricity Competition
Plan at Section II.A (http://www.hr.doe.gov/electric/ceep.htm).

54 This arrogant approach also was expressly argued by FERC in its merger NOPR where it
again basically argued that as a matter of law and fact, vertical integration could produce no
efficiency benefits. (In fact, FERC argued incorrectly that vertical integration was per se
anticompetitive.) Once again, however, the only problem with such arrogance is that it is
completely inapposite to established antitrust precedent and economic first principles. See PHOENIX
CENTER POLICY PAPER NO 3, supra n. 8, at 24-37.
Yet, given FERC’s statements and actions towards ISOs, it is clear that FERC does not trust the market either. Instead, FERC wants essentially: (a) to bring all transactions out of firms and into the market; yet (b) immediately bring all transactions out of the market and into a single, so-called “independent” firm (i.e., an ISO) that it can control and regulate completely. As Oliver Williamson warned, however, such a haphazard approach simply will not work:

Selective intervention, whereby integration realizes adaptive gains but experiences no losses, is not feasible. Instead, the transfer of a transaction out of the market into the firm [in FERC’s case an ISO] is regularly attended by an impairment of incentives. It is especially severe in circumstances were innovation (and rewards for innovation) are important. ** [Accordingly, e]fforts to “hold incentives constant,” thereby to effect incentive neutrality, thus turn out to be delusional. The problem is that none of the following is costlessly enforceable: promises by division managers to utilize assets with “due care”; promises by owners to reset transfer prices and exercise accounting discretion “responsibly”; promises to reward innovation in “full measure”; promises to preserve promotion prospects “without change”; and agreements by managers to “eschew politics.”

Thus, if you think about it, FERC’s “fundamental unbundling” paradigm does not even seek to resolve the true dichotomy of transaction costs economics – i.e., that because firms and markets are alternative methods of allocating resources, is a vertically-integrated electric utility industry more efficient than a structurally-separated electric utility industry? Instead, FERC is attempting to compare vertical integration with a messy half-baked notion of structural separation in a market already badly distorted by FERC policy.

Equally specious are certain FERC’s official’s beliefs that they can actually improve market performance by arbitrarily dividing up the country into regional

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55 Moreover, the FERC’s micro-management of will simply add to the transaction costs of its own paradigm. (See, e.g., FERC’s various ISO orders where FERC had to resolve disputes regarding whether the ISO’s governing board’s employees could take a pension and for how long and for how much. Both Commissioner’s Bailey and Hebert have expressed disdain over such micro-management.)

56 See Williamson, supra n. 4 at 161.
geographic districts.\(^{57}\) As Commissioner Bailey recently warned correctly, from a policy perspective, everyone should be “very wary” should FERC attempt to sit in Washington D.C. and “act[] as a central planner with a large map of the utility industry on [their] wall and a magic market at [their] disposal.”\(^{58}\) Why? Because FERC is “not situated in as good a position as the utilities [it] regulate[s] in determining the map and boundaries of utility companies, acting alone or in concert with other utilities, operating in the future.”\(^{59}\)

Viewing FERC’s actions in this light, therefore, the methods behind FERC’s madness become a bit clearer: FERC does not want rivalry, FERC wants choices; and because “more choices” a fortiori means “more competitors,” (a.k.a. power brokers who, by definition, bring no additional capacity to the market\(^{60}\)) then functional unbundling is the quickest and fastest way to produce this structure—economic efficiency be damned.\(^{61}\) Instead, this “virtual” competition provided by

\(^{57}\) See supra n. 2.

\(^{58}\) See Notice of Intent to Consult Under Section 202(a), RM099-2-000, 85 FERC (CCH) ¶ 61,304 (1998) (Commissioner Bailey concurring and dissenting in part). Moreover, Commissioner Bailey also questioned severely FERC’s legal authority to divide the country into regional districts as well.

\(^{59}\) Id. Sadly, given the “toxic” market FERC has created, it is also unlikely that utilities will be able to identify correctly the appropriate borders of “regional transmission districts” at this time as well.

\(^{60}\) See, e.g., Enova Corporation & Pacific Enterprises, 79 FERC (CCH) ¶ 61,107 (1997); Morgan Stanley Capital Group Inc., 79 FERC (CCH) ¶ 61,109 (1997); see also Agis Salpukas, California’s Effort to Promote Plan For Electricity Is Off to a Slow Start, NY TIMES (Feb. 26, 1998) at D1, D6 (reporting that because of “hard-sell techniques or even outright fraud,” California regulators had to suspend the licenses of dozens of non-utility marketers).

\(^{61}\) See, e.g., id., (Energy marketer’s offer of a 10% rate cut was not the result of competitive savings, but rather was an automatic bonus—mandated by the California State legislature and paid for by a special bond issue—for every energy user who switched providers in the state;); Agis Salpukas, Utility Deregulation: Boon or Boondoggle?, NY TIMES, February 1, 1997 (business section) (reporting that consumers were not aware that most of the alleged savings resulting from New Hampshire’s retail-marketing plan were not the “result of free-market competition or any economies of scale that [a new entrant] might bring to bear on a regional market. Rather, they stem from state-mandated subsidies and from the willingness of...marketers to shave their profit margins to near zero to get a piece of the action.”(emphasis supplied). The article further reported that while the deregulation of the national market for electricity “might ultimately bring about lower prices in some parts of the country, the monthly bills of the 17,000 New Hampshire residents taking part in the current pilot program could bounce back up if the subsidies are phased out and [the] winners of the marketing battle reward themselves by taking a profit.” Readers should
the information superhighway will require the presence of constant, heavy-handed and tangible regulation, and therefore any true benefits for consumers will remain in virtual cyberspace bank accounts, rather than as cold, hard cash in their wallets, as well. (Like it or not, “free-ridership” does not promote consumer welfare.) Accordingly, because the “public interest standard” is a consumer welfare standard, FERC’s unilateral imposition of regional grid institutions (ISOs et al.) under current restructuring initiatives is arbitrary and capricious.

therefore not equivocate the pseudo-benefits produced by this “neo-competition” with the benefits produced by rivalrous competition—i.e., static economic efficiencies in the form of declining prices and dynamic economic efficiencies in the form of new products and services.) See, e.g., Lawrence Spiwak, Reconcentration of Telecommunications Markets After the 1996 Act: Implications for Long-Term Market Performance, ANTITRUST REPORT (May 1997) at 17, 19 & note 8 (explaining how the FCC’s Competitive Carrier paradigm successfully deregulated the U.S. domestic long-distance market by creating a market structure conducive to competitive rivalry, under which carriers are forced to lower prices, innovate their services and, if necessary, actually pay people to be their customers); Peter Elstrom, Slugfests: Reach out and Pay Someone, BUSINESS WEEK (March 23, 1998) (reporting that MCI is upset because AT&T is “flooding the market with checks” worth $369 million in January 1998 alone, up from $70 million a month in fourth-quarter ’97, just to pay people to switch carriers).

Indeed, any notion that “state-sponsored, managed competition”—i.e., when regulators order firms, as a condition of providing service, to lower their previously-approved just and reasonable rates to an apparently more “affordable” level—can either actually maximize consumer welfare or be sustained in the long-term is simply specious at best. See The Search for Meaning, supra n. 10 at 7-8, 11-14 and citations therein.

See id. at 3, 12 & 14 (Discrediting the notion that “by protecting competitors we a fortiori protect competition.”). See also City of Anaheim v. Southern California Edison Co., 955 F.2d 1373, 1380-81 (9th Cir. 1994). There, the court refused to find a utility’s refusal to let a rival use a constrained power line to be a violation of § 2 of the Sherman Act because the utility had a limited amount of capacity on the line and it desired to use that capacity to the limit when it could obtain inexpensive power. According to the court, when the utility can obtain less expensive inputs from the production market (i.e., cheap power) these savings can be rolled into its other costs and result[ ] in...savings to all of its customers. In this sort of regulated industry, it is certainly to the benefit of the monopolist’s customers if its rates are as low as possible. Indeed, that is the major reason for the existence of regulatory commissions....In other words, the public interest is well served when that happens, and that gives even more weight to the propriety of the refusal. As such, the court found the plaintiff’s argument that a monopolist has “a duty to deal based on the extent to which a competitor might benefit if it had unlimited access to the monopolist’s facility,” rather than a “duty to deal based on the harm that would result to competition from the monopolist’s refusal,” improperly turns “the essential facilities doctrine on its head.”

See PHOENIX CENTER POLICY PAPER NO. 1, supra n. 11 at 14 (“Indeed, all that FERC’s “neo-competition” policy achieves successfully is the improper reallocation of wealth from one firm to...”)
IV. Where the Rubber Meets the Road: Observed Industry Conduct and Market Performance.

Over the past several months, the popular economic buzzwords FERC officials have been bandying about are vague references (without citations of course) to the Structure-Conduct-Performance Paradigm of Modern Industrial Organization. What these officials apparently do not understand, however, is that the notions of structure, conduct and performance are not severable “factors” but are actually interdependent economic concepts of each other. That is, structure is made up of a series of economic basic conditions. Structure, in turn, affects the conduct and behavior of firms in the market. Finally, the economic performance of the market can then be measured by the presence static economic efficiencies (e.g., declining prices), dynamic economic efficiencies (increased... another, unduly burdening an already constrained national transmission grid (hence the recent proliferation of rolling blackouts), and providing public policy officials with yet another press release to enhance their political narcissism.”); The Search for Meaning, supra n. 10 at 2-5, 14; see also, Margie Hyslop, Electricity Dereg May Not Lower Rates, The Montgomery Journal, June 4, 1997, at A1; Hiram Reisner, Big Business Wins, Homeowners Lose Louisiana Competition Study Shows, ELECTRIC UTILITY BUSINESS & FINANCE, October 7, 1996 (reporting that in “terms of the economy as a whole, the benefits of expected lower prices for industrial customers do not offset the reduction in disposable income for consumers due to higher residential rates.” In fact, the state would “see an overall reduction in personal income, retail sales, tax revenues, and economic output” for several years). Funny, I thought that the law is pretty clear on this point: The “public interest” may not be used to benefit a particular individual or group; rather, an agency’s actions must be consistent with the interest of “the public” as a whole. See, e.g., Northeast Utilities Service Co. v. FERC, 993 F.2d 937, 951 (1st Cir. 1993).

See, e.g., Hoecker September 17 Speech, supra n. 1, where the “key issue” FERC Chair Hoecker wanted to focus upon was the “organization and operation of utilities.” According to Chair Hoecker, “one cannot be a true believer in competition and an agnostic about market structure. Here again, we have found that Order No. 888 has laid the necessary predicate for competition but is not sufficient to accomplish it.”

See, e.g., F.M. Scherer and David Ross, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE (3rd Ed.) at 4-5 (Houghton Mifflin Co. 1990).

Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, reh’g denied, 509 U.S. 940 (1993); A.A. Poultry Farms, Inc. v. Rose Acre Farms, Inc., 881 F.2d 1396, 1401 (7th Cir. 1989) (“Market structure offers a way to cut the inquiry [of potential, anticompetitive strategic vertical conduct] off at the pass . . . .”); see also Scherer and Ross, supra n. 64 at 5 (“Despite antitrust’s focus on structural measures such as the HHI, economic concentration is only one aspect of market structure. Other relevant features of market structure include product differentiation, barriers to entry, cost structures, vertical integration, and diversification.”)
innovation, investment, etc.) or both. Moreover, if a market is performing well, consumers will benefit from other societal benefits as well. An excellent example of this type of consumer welfare enhancing performance can be found in the current market for domestic long-distance service.\(^6\)

When government attempts ostensibly to create a market structure conducive to competition by using deliberately legally and economically flawed policies, however, the exact opposite occurs. As such, U.S. electric utility industry observers should not be surprised when the flawed structure created by FERC's arbitrary and capricious policies provide firms with improper incentives to engage in irrational and, indeed, perhaps anticompetitive, behavior. To wit, observed electric utility industry conduct in the post-Order No. 888 years includes: (a) investment for new bulk transmission facilities is down by almost half; (b) a demonstrable trend in industry reconcentration; (c) firms engaging in what I describe as the "great generation swap"\(^7\); (d) no new tangible entry (firms or capacity)\(^7\); and (e) attempts by some firms to go so far as to seek to foreclose

\(^6\) See, e.g., The Search for Meaning, supra n. 10 at 8.

\(^7\) Order No. 888's disincentive to build any new transmission capacity has also led utilities to engage in what I call the "Great Generation Swap." *** [That is to say,] assuming arguendo that restructuring actually produces a market structure that is conducive to competitive rivalry – e.g., the ownership of generation and transmission facilities are completely unbundled (we are talking about some serious structural separation here), residual "obligations to serve"/"carrier of last resort" burdens are eliminated, and the supply curve for transmission capacity becomes elastic and shifts to the right, such that bottleneck concerns are alleviated – then a national "portfolio" of generation assets would make sense because the "marketer" will be able to meet demand anywhere in the country efficiently. Unfortunately, because existing policies provide no incentive to build any new transmission or generation capacity to get the competitive power to the people and "obligation to serve"/"carrier of last resort" responsibilities continue, current restructuring policies are simply providing utilities with the economically irrational incentive to "swap" both generation assets and loads with each other to minimize operational distortions on the national distribution grid just to provide politicians with the "appearance" of competition that politicians demand to observe.

\(^7\) By FERC's own admission, power-marketers do not have to bring any additional "tangible" new capacity (generation or transmission) to the table (indeed, FERC appears to be more interested in exercising jurisdiction over "paper assets" than what the competitive effect of those ephemeral assets might mean on the market). As such, these marketers have both substantial freedom to enter and exit the market and excellent free-rider opportunities. (See, e.g., Enron's recent California experience.) However, while power marketer status may be advantageous when you are trying to enter someone else's core territory, you certainly don't want this kind of entry to develop in your own core territory.
key inputs of production from would-be rivals (i.e., gas/electric hybrid mergers such as Enova). Economic theory teaches that when policies create a market structure that is not conducive to competitive rivalry, the performance of this market will be poor. As such, we should not be surprised with the growing amount of empirical data showing the adverse effects of FERC’s flawed policies and, a fortiori, how this poor performance affects adversely the value of utility’s stock prices.71

A. NERC’s 1998 Annual 10-Year Assessment

Tragically, the empirical evidence supports the above analysis. As NERC itself states in its 1998 10-year Reliability Assessment Report, under current market conditions:

Transmission providers (TPs) may find it difficult to justify investment in new transmission facilities without proper incentives. TPs are subject to requirements to connect new generation at any location and provide transmission service, but may not be allowed full cost recovery by some state commissions. Transmission congestion pricing could provide price signals to encourage efficient generation siting and transmission expansion. However, until sufficient incentives are put in place, the growth in transmission capacity is not likely to keep pace with the business or reliability needs of the system.72

Thus, according to NERC’s most recent 10-year assessment:

71 See Kathryn Kranhold, Electricity Trader’s June Default Shows Vulnerability of Deregulation, WALL STREET JOURNAL (July 9, 1998) (Reporting that the recent electric utility “market turbulence, which raises questions about the newly deregulated electricity market and the trading of electricity, is starting to attract the attention of regulators around the country.” Indeed, the article reported that not only are Ohio and Indiana regulators starting investigations (which, ironically, are the very state commission’s who started this whole restructuring ball rolling), but “in Washington, [FERC] has been asked to hold a conference on the price spikes and the wholesale electricity-trading market, and is considering what action to take.” Moreover, the article went on to mention specifically that “Southern Co. suffered losses of about $10 million after [Power Co.] failed to deliver power it had contracted to provide.”

Transmission systems will be “increasing challenged” to accommodate demands of evolving competitive electricity markets;

Electricity supply adequacy could “deteriorate in the long-term” if development of additional generating and transmission capacity does not keep pace with growing customer demand;

Capacity margins are at “dangerously low levels”;

“Very few” bulk transmission additions are currently planned (only 6,588 miles of new transmission (230kV and above) are planned throughout North America over the next ten years); and

Coordination of generation and transmission planning is likely to decline.  

NERC therefore concludes that:

The prospect reliability of the system in the longer-term is open to question. A number of signs exist that individually may not be a concern, but collectively could impact the liability in the future. Business is increasing upon the transmission system, but very little is being done to increase the load serving and transfer capability to the bulk transmission system. (Emphasis supplied.)

B. Historical Data

NERC’s conclusions are even more alarming when the historical data is gathered and analyzed. After reviewing NERC’s 10-Year Annual Assessments pre- and post-Order No. 888, the empirical evidence shows that planned additions for interstate bulk transmission lines (230 kV and above) have decreased by almost 50%:

<table>
<thead>
<tr>
<th>Transmission 230 kV &amp; Above (Circuit Miles)</th>
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<tbody>
<tr>
<td>Assessment Period</td>
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<tr>
<td>Id. at 6-7</td>
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C. Gasping at Straws

At the time of this writing, various FERC officials have attempted to discount this data by arguing that owners of local generation are to blame for this unacceptable decrease in planned transmission.\textsuperscript{76} Hardly. As discussed supra,

\textsuperscript{75} See also Peter Coy, \textit{Utilities: Prognosis 1997}, \textit{Business Week} (January 13, 1997) at 118; Sturdivant, supra n. 5 ("Construction spending for transmission systems is already down significantly. . . ."); Steve Hoffman, \textit{Enhancing Power Grid Reliability}, \textit{EPRI Journal} (Nov. 21, 1996), reporting that:

The limited construction of new transmission lines is one factor in the increased stress on the grid. Over the past decade, electrical loads have grown at an average annual rate of 2%. Yet in the same period, little new transmission capacity has been installed, largely because of the high cost of such lines (about $1 million per mile for a 500 kV line) and the difficulty of obtaining new rights of way. **** The result is that the existing transmission system is being called upon to perform functions on a scale for which it was not originally designed.

\textsuperscript{76} For example, according to FERC Chair James Hoecker, some sort of mandatory regional transmission institution is required, because a "regional power market requires a regional view of new facility needs. Although new lines should be built sparingly and are hard to site, market participants need to know that local generation owners are not blocking expansion to protect their own interests." (Emphasis supplied.) Hoecker argued, moreover, that:

Market power may persist in individual markets and must be addressed in these instances. It results when there are two few sellers in the market because those markets are artificially constricted. If markets are balkanized, there can be a concentration of generation ownership, especially in an industry that grew as a series of local monopolies. Together with poor congestion management and pancaked rates, local generation ownership serves to keep other sellers for reaching local markets.

(Footnote Continued . . .)
FERC apparently believes that with “open access,” consumers should be able to buy power from anywhere in the country and have this power wheeled directly to their doorstep. From an economic point of view, however, the most efficient way to dispatch a grid generally is to place the generation as close to the load as possible, rather than act as some faux “commodities” trading floor (i.e., operate the grid in an inefficient manner). If this structure is impractical, however, then utilities must constantly evaluate the benefits of purchasing and transmitting cheaper, distant generation versus the possible costs of not adequately serving their native load. As such, just because you can buy cheap hydropower in the Pacific Northwest and wheel that power to Key West, Florida at subsidized doesn’t mean that this is still a good – i.e. efficient – idea.

V. So Where do We Go From Here?

Given the above, if FERC wants a market structure where the most efficient way to allocate resources is to transact in the market rather than to integrate via the firm, then FERC must lay the correct structural framework. As noted in earlier memorandum and published writings, FERC has failed miserably in this endeavor, because it has consistently and deliberately refused to provide the market with the correct economic incentives to make this transformation. Thus, before the proverbial “eggs” are too far scrambled to repair, FERC should return to economic first principles and find economically correct ways to improve the market performance of the historical structure of the U.S. electric utility industry. This paper recommends that FERC take a two-pong approach to this problem.

Thus, concluded Hoecker: “Regional grid management institutions are the only way that regulators and industry participants will be able to address these critical matters in time to keep competition on track” and prevent FERC’s restructuring efforts and the move towards retail competition to “languish, become too costly, or fall into disrepute.” (Emphasis supplied.) Hoecker September 17 Remarks, supra n. 1.

77 NERC appears to share tacitly in this view. According to NERC:

To insure a continuing resource adequacy, the risk of failing to serve the customer must be recognized in incorporated in price structures. In the unbundled industry, each market participant assumes only a portion of the financial risk. Furthermore, the risk that customer demand will exceed the level expected in the forecast should be considered. Response in the market to this possible situation will determine whether resource adequacy is maintained.

At bottom, the root of the industry’s problems is not the lack of “competitors” per se, but the lack of sufficient transmission facilities. When capacity is constrained, there are two ways to mitigate bottleneck control: (1) impose economic regulation on the owner of the facility to mitigate its ability to raise prices and restrict output; and, in the end always the more effective measure, (2) promote new facilities-based entry. Tragically, FERC has overreached egregiously on the first prong, and has all but ignored the latter. Only by adopting a comprehensive policy that concurrently attacks both prongs will FERC be successful, however. Each are discussed briefly below:

A. Promoting New Infrastructure Investment

FERC must find ways to encourage additional facilities-based infrastructure investment. As a start, FERC must permit utilities to price transmission based upon incremental rather than embedded costs. Similarly, FERC must permit utilities to engage in lawful (not “undue”) discrimination and product differentiation (e.g., volume discounts) and, as such, FERC must eliminate homogeneous pro forma tariffs. There are, however, other regulatory options in FERC’s arsenal should FERC decide to use them. For example, FERC could, inter alia:

- Presume all rates for new transmission facilities to be J&R for a specific period of time to ensure accelerated recovery of investment;
- Not impose “open access” requirements on new transmission for a specific period of time to ensure capital recovery;
- Remove other regulatory barriers within its authority that could delay or deter new construction (e.g., conduct Environmental Assessments on an expedited basis, reduce reporting requirements);
- Use its “bully-pulpit” to have Congress enact laws that further this initiative (e.g., give FERC authority to pre-empt state franchise authority; have Congress pass tax incentives for new transmission construction).

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78 For example, FERC Commissioner Hebert has called publicly for the adoption at the Federal level of the incentive rate plan developed by the Public Service Commission of Mississippi for Mississippi Power & Light. See Hebert, supra n. 50 at 13-19.
Again, decision-makers must be reminded that the market does not need more “competitors” per se; what the market needs is more transmission capacity!

B. Mitigating Bottleneck Control of Transmission Facilities

Unfortunately, given the huge sunk costs, network externalities, and operational characteristics and requirements inherent to a transmission grid, the grid – regardless of total capacity – will retain perpetually some natural monopoly characteristics.\(^79\) The question to be asked, therefore, is whether it is possible to create some sort of organizational structure(s) that can mitigate grid operator’s ability to raise price and/or restrict output but at the same time still provide the operator with correct incentive to operate the network in a more efficient manner and improve the economic performance of the market.

Absolutely. Remember, vertical integration is not necessarily a bad thing – again, it is a question of balance. Thus, it should be possible for educated and reasonable people to develop an Open Access paradigm: is (a) priced correctly; (b) resolves stranded cost issues in an equitable manner; and (c) both ensures system reliability and promotes new investment. If we have learned from our mistakes, therefore, this would entail, at minimum,

1. Eliminating the current flawed concept of “network service”;
2. Eliminating homogeneous pro forma tariffs to permit product differentiation and lawful discrimination (e.g., volume discounts); and

Then, and only after the first three prongs are resolved, may discussions begin about formulating appropriate mechanisms to provide the industry with attractive incentives to enter voluntarily into some sort or regional grid institutions that

\(^79\) Indeed, the characteristics of the U.S. electricity industry are completely inapposite to the characteristics of the U.S. long-distance industry, where it is possible to have multiple competing facilities-based networks. Moreover, the characteristics of the U.S. electric utility industry are also completely inapposite to the market for residential telephone service (a market argued by some to also exhibit natural monopoly characteristics), because it is actually possible to unbundle physically the local loop from other components of the network without impairing overall system operation, reliability, or planning.
make the market operate more efficiently – unlike FERC’s current unlawful attempts to force unilaterally the industry into a mandatory regime that by definition forces them to operate inefficiently.

Naysayers will probably view this argument as a defense of the unsatisfactory world pre-Order No. 888. Not so.

What is important to understand that once Congress passed the Energy Policy Act of 1992, the problem has not necessarily been one of market participants per se, but more a problem of naked regulatory failure. Indeed, since 1992, FERC has had the authority to resolve transmission disputes under Sections 211 and 212 of the FPA, but it nonetheless prefers to ignore deliberately the plain language of these statutes and instead – in its naked effort to overreach its boundaries and reallocate wealth – improperly base its legal argument upon the “unduly preferential” standard in the ratemaking provisions in Sections 205 and 206 of the FPA. 80

Moreover, because structural separation – like all forms of regulation – is a matter of degree, FERC should have dedicated more attention to balancing the benefits and harms of integration before unilaterally (and erroneously) deciding that all forms of integration are essentially per se illegal. Indeed, regional transmission institutions do not necessarily have to take the draconian form of a mandatory ISO. To wit, if FERC fixes the structural problems with its paradigm outlined supra, then perhaps some lesser form of mandatory structural separation among wholly-owned generation, transmission and marketing affiliates with stringent accounting safeguards might sufficient to achieve the general (and ostensible) policy goals behind FERC’s “Eleven Principles.” 81

80 Phoenix Center Policy Paper No. 1, supra n. 11 at n. 14. For example, FERC could have used its authority under all four statutes to improve complaint procedures under current Open Access tariffs (e.g., a “rocket docket”) to resolve expeditiously interconnection/transmission disputes. Indeed, FCC is currently using this mechanism in the context of local loop access and by all accounts is producing extremely positive results. Moreover, one would think that with ongoing “Great Generation Swap” discussed supra, if FERC’s transmission policy would have been well grounded in economic first principles, one would think that everyone would have jumped on the bandwagon because they would stand to gain from true reciprocity!

81 For example, FirstEnergy and the Automated Power Exchange (APX) just announced that they had agreed to jointly develop an electric power exchange to be based in FirstEnergy’s northern Ohio service area. Although all transactions will be channeled through FirstEnergy’s control area, the exchange will be a completely independent entity and owned and operated by
Obviously, the devil is in the details, and space and time constraints prevent a detailed exegesis here.

VI. Conclusion

Nothing above should be construed to mean neither that FERC should play an active in the current attempt to restructure the U.S. electricity industry nor, more broadly, that economically correct restructuring is impossible. Quite to the contrary, FERC has a very legitimate and very important role to play and, with some serious thought, market performance can be improved with well-reasoned, forward-looking public policies. So long as FERC’s policies nakedly and cavalierly ignore basic economic first principles and legal precedent, however, we should not be surprised when FERC’s mis-guided and ill-formed efforts to “fundamentally unbundle” the U.S. electric industry continue produce more economic harms than public-interest benefits.

Cupertino, California-based APX. See Pasha Communications, MEGAWATT WEEK (January 12, 1999).