

C O M M E N T

Non-Transmission Alternatives, Distributed Energy Resources, and a Multi-Directional Grid

by Michael Panfil

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The electric sector is founded upon a basic principle: supply must balance demand at all times. Should one outstrip the other, reliability events—that is, the dreaded blackout—will occur. It’s an elemental and somewhat unique industry feature, and responsible for much of the layered and complex planning and forecasting embedded in the sector. A grocer who underestimates demand turns away the last few customers; a utility’s mistake will upset not only new but existing ones as well.

In furtherance of this principle, the sector has traditionally embarked upon a familiar pattern: supply is generated in place X, transported via transmission and distribution, and consumed in place Y. The Federal Energy Regulatory Commission (“FERC” or “Agency”) regulates the interstate portion of the process; state Public Utility Commissions (“PUC”) are responsible for the other side of this coin. These Commissions are charged with maintaining reliability or ensuring that supply and demand are balanced. They are likewise obligated to ensure that the resulting power is priced at ‘just and reasonable’ rates.

From 1,000 feet, the sector appears neatly organized. Two levels of government, working in coordination with clear lines of responsibility, to ensure reliable, cost-effective energy. Yet as Welton’s article illuminates, this is not the case. A review even one step beyond cursory examination reveals “persistent governance and jurisdictional hurdles.”¹ Welton provides a thorough and well thought-out analysis of these challenges, through the lens of transmission planning and non-transmission alternatives (“NTA”). And in doing so, Welton references the recent Supreme Court decision, *FERC v. Elec. Power Supply Ass’n*² (*FERC v. EPSA*), and suggests that the case may provide FERC with not only the authority, “but ‘indeed, the duty’” to ensure just and reasonable rates through non-traditional means, such as true parity in treatment of non-transmission alternatives.

Welton’s analysis is accurate, however both *FERC v. EPSA* and current transmission planning challenges are symptomatic of larger upheaval in the electric sector. This Comment endeavors to provide context for this upheaval, by first exploring and suggesting a cause for the ongoing foundational change. Next, the implications of *FERC v. EPSA* are discussed. This Comment ends with a broader estimation of how the sector could develop in the future in response to ongoing transformation.

I. Foundational Change in the Electric Sector

FERC, under the Federal Power Act (“FPA”), regulates interstate transactions; states regulate intrastate transactions. *FERC v. EPSA* notes “that statutory division generates a steady flow of jurisdictional disputes because—in point of fact if not of law—the wholesale and retail markets in electricity are inextricably linked.”³ Yet disputes are increasing; the Supreme Court has heard three FERC cases, all centered on jurisdiction, over the past two years.⁴ Numerous factors may contribute to this rise: heightened environmental concern, increased interconnectedness of the grid, and deregulation, to name a few.⁵ However, this Comment submits that a more systemic change is underway: the physical grid itself is changing from a uni-directional system to a multi-directional one.⁶

3. *Id.* at 1.

4. See *FERC v. EPSA*; see *Oneok, Inc. v. Learjet, Inc.* No. 13-271 (2015); see *CPV Maryland v. Talen Energy Marketing* No. 14-623 (currently undecided).

5. See PETER FOX-PENNER, *SMART POWER*, Island Press (2010) (for a greater discussion of factors contributing to electric sector reform).

6. Unlike, for example, environmental concern, which FERC has argued has no legal basis in the FPA, fundamental change in how the grid generates, transports, and consumes energy has clear impact upon the jurisdictional language of the FPA itself, which structured jurisdiction to a grid that did not contemplate the flow of energy from distributed energy resources. For this reason, this author believes that multi-directional energy flow has been the primary cause of increased jurisdictional disputes more than other possible reasons. See <http://texaselectricnews.com/ferc-chair-ferc-must-be-fuel-neutral-supreme-court-using-new-federal-state-line-test/> (FERC Commissioner Bey statement that his Agency is not an environmental regulator).

1. Shelley Welton, *Non-Transmission Alternatives*, 39 HARV. ENVTL. L. REV. 457, 460 (2016).

2. 136 S. Ct. 760 (2016).

Although supply and demand balancing is axiomatic, the ability to do so via ‘demand-side’ actions is relatively new, particularly in instances with substantial impact. Previously, demand was most cost-effectively and reliably balanced through increased supply. Today, however, “energy efficiency, demand response, and distributed generation; as well as energy storage and centralized generation sited near load”⁷ can be superior alternatives (collectively “DER”). This is true for not only NTAs, as relevant to transmission analysis, but also distribution planning, energy consumption, and energy capacity.

This multi-directional system is significant for a second reason: just as energy previously flowed in one direction, so too did information, from the end-use consumer to the utility. With the advent of advanced metering infrastructure and other ‘smart grid’ technologies, those on the ‘demand-side’ can not only install DERs, but understand when, how, and why such installations are more efficient than solely relying upon the ‘supply-side’ of the grid itself.

By functioning in an inherently different direction (that is, behind the meter retail customers impacting wholesale marketplaces and rates), these resources fit poorly within a jurisdictional divide that previously equated ‘retail’ with ‘consumer’ and ‘demand’. The resulting system is thus one imbued with a certain conflict: FERC must ensure ‘just and reasonable’ rates, but does not yet have a regulatory regime fully capable of recognizing, valuing, and accommodating demand-side resources capable of providing most ‘just and reasonable’ rates. And viewed through this frame, symptoms and FERC actions such as recent FERC Orders, NTA consideration in transmission planning, and cases like *FERC v. EPSA*, are not only expected but predictably more commonplace.⁸

II. FERC v. EPSA

FERC v. EPSA centers upon a jurisdictional dispute involving wholesale energy markets and a particular energy resource, demand response. At issue in this case was whether FERC could issue a policy (FERC Order 745) to regulate the inclusion and compensation of the resource in wholesale energy markets. Yet as Welton accurately suggests, the case has significant implications for other substantive inquiries, including transmission planning and NTAs. Federal and state jurisdictional boundaries, like two colliding tectonic plates, caused this particular eruption, and the Supreme Court decision rightly provides

guidance on not only how to navigate the outbreak but the underlying cause as well.

To resolve this core tension, the Court espoused a two-fold inquiry. First, the Supreme Court adopted a “commonsense construction of the FPA’s language, limiting FERC’s ‘affecting’ jurisdiction to rules or practices that ‘directly affect the wholesale rate.’”⁹ Second, the Court requires that FERC rules or practices must not “regulate *retail* electricity sales.”¹⁰ And a FERC rule or practice furthers the Agency’s mandate when that rule or practice ensures the wholesale rate is just and reasonable. Indeed, it could be reasonably assumed that when a rule or practice is found to further just and reasonable rates, FERC has not only the freedom, but also the duty, to act.

The decision further recognized that the law should allow for such economically efficient outcomes, noting that “wholesale and retail markets are not “hermetically sealed from each other.”¹¹ Rather, the grid is “interconnected . . . of near-nationwide scope.”¹² And thus the legal framework anticipates wholly valid FERC action that necessarily “[affects]—even substantially—the quantity or terms of retail sales.”¹³

The decision clearly indicates that FERC has jurisdictional room to maneuver in fulfilling its duty of ensuring just and reasonable rates. Indeed, FERC met the Court’s standard “with room to spare.”¹⁴ The relevant inquiry, then, is how FERC should proceed in the future within this reaffirmed jurisdictional space.

III. Implications for Future Action and Jurisdictional Debate

EPSA clearly holds that FERC may regulate wholesale demand response. Yet there are many other policies and practices FERC could enact to further just and reasonable rates while remaining within the “directly affecting” and “targeting” confines of the *EPSA* decision. Cost-effective distributed generation, energy efficiency, and aggregated energy storage may, if bid at wholesale, be within the Agency’s jurisdiction. As Welton argues, cost-allocation for NTAs may likewise fall under FERC jurisdiction as a “practice ‘directly affecting’ transmission rates.”¹⁵ Each action would directly affect and target wholesale activity and result in more just and reasonable rates. However, such actions would, like demand response and Order 745, utilize resources on what has traditionally been considered the

⁸ *But see also* Christopher Bateman & Jim Tripp, HARV. L. REV. (2014). Available at <http://harvardelr.com/wp-content/uploads/2014/08/Bateman-Tripp.pdf> (Arguing that FERC has a responsibility to consider environmental impacts in some instances).

⁷ Welton, *supra* note 1, at 465.

⁸ See *id.* for a far more robust discussion and analysis of recent FERC Orders.

⁹ FERC v. EPSA at 15.

¹⁰ *Id.* at 17.

¹¹ *Id.* at 18.

¹² *Id.* at 4.

¹³ *Id.* at 18.

¹⁴ *Id.* at 16.

¹⁵ Welton, *supra* note 1, at 502.

‘demand-side’ of the system. In the face of such change, litigation would be unsurprising.

Frequent litigation can be a symptom of transformative change in any sector.¹⁶ In this Author’s estimation, it portends a potential future for this industry imbued with improved market design and planning. This new multi-directional paradigm affords these benefits through not only advancing technological capability but more balanced access to information. As Nobel Prize laureate Joseph Stiglitz found, “even a small amount of information imperfection could have a profound effect on the nature of the equilibrium.”¹⁷ Yet Stiglitz also noted the importance of ‘sequencing’ and ‘pacing’ sector reforms to ensure efficient results.¹⁸ This, in addition to the need for certainty for market actors, suggests that although litigation may be an expected symptom, it could result in sub-optimal outcomes. *FERC v. EPSA* provides an important step in avoiding such detrimental outcome by creating new legal certainty, but does not itself provide a complete narrative. Iterative market design may thus be the best practical pathway to an improved electric grid. The resulting future, then, is one with an expectation that FERC should (and indeed, under a reasonable interpretation of the FPA, must) continue to incorporate and accommodate resources, processes, and pathways created from this burgeoning multi-directional system. The expected efficiencies and more just and reasonable ends demand nothing less.

IV. Conclusion

If impetus for FERC action, specifically for transmission planning and more generally for the electric grid, is expected, how then, should FERC act? One option is to follow an already established form: experimentation in federally regulated markets and regions followed by consistent policy. Indeed, demand response naturally evolved in this way, first instituted by regional marketplaces in varying ways and degrees, with FERC only creating uniform policy after the resource’s value became clear. States remain ‘laboratories of democracy,’ but viewed through the framework laid out above, FERC regulated markets may become the ‘laboratories of innovation’ for the increasingly interconnected electric sector.

EPSA suggests that the law should allow, encourage, and even compel this same evolution for other resources and processes, including NTAs and transmission planning. As Welton’s article concludes, “[w]here transmission can be avoided, it should be. FERC knows this, but has not yet translated its aspirations into effective regulations. Further reforms will be necessary to achieve true parity.” To further just and reasonable rates in an evolving multi-directional grid, much the same could be said for the sector as a whole.

16. See generally Lane Kenworthy et al., *The More Things Change . . . Business Litigation and Governance in the American Automobile Industry*, University of Wisconsin-Madison (1993), available at https://media.law.wisc.edu/s/c_8/xytyy/more_things_change.pdf.

17. Joseph Stiglitz, *Information and the Change in The Paradigm in Economics*, Prize Lecture (2001), at 475, available at http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2001/stiglitz-lecture.pdf.

18. See JOSEPH STIGLITZ, *GLOBALIZATION AND ITS DISCONTENTS*, Norton (2002).