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Electricity Transmission Cost Allocation

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Summary

Perhaps the most contentious electricity transmission financing issue is cost allocation for new interstate transmission lines—that is, deciding which electricity customers pay how much of the cost of building and operating a new transmission line that crosses several states. This report provides background and analysis of current transmission cost allocation policy and issues.

For many years, the Federal Energy Regulatory Commission (FERC) declined to go beyond establishing general principles as set forth in its Order No. 890, which addressed "undue discrimination and preference" in the providing of transmission services. Transmission cost allocation proposals made by transmission service providers were therefore reviewed by FERC to ensure compliance with the general principles outlined in Order No. 890 and the Federal Power Act (FPA). However, there were calls for FERC to provide a clearer framework for cost allocation. The decision of the Seventh Circuit in *Illinois Commerce Commission v. FERC*, to reject a cost allocation plan approved by FERC which would have permitted "socialization" of the costs for some new transmission projects (i.e., allowing the costs to be spread widely among ratepayers in the PJM Interconnection, even those who do not substantially or clearly benefit from a project) encouraged FERC to seek more clarity with respect to cost allocation. Congress also entered the fray in the form of legislative proposals that would amend the Federal Power Act to include new transmission cost allocation guidelines that FERC would be required to follow.

In 2009 FERC decided to take an in-depth look at cost allocation and other transmission planning issues as part of a new docket. FERC observed that its "best remaining opportunity to eliminate barriers to new transmission construction may therefore be to provide greater certainty in its policies for allocating the cost of new transmission facilities, particularly for facilities that cross multiple transmission systems." FERC requested comments from stakeholders on transmission planning issues.

After receiving and reviewing comments from stakeholders and offering a proposed rule in 2010, FERC published Order No. 1000, a final rule reforming FERC's transmission planning and cost allocation requirements for transmission service providers, on July 21, 2011. The final rule required transmission service providers to (1) participate in a regional transmission planning process; (2) amend their transmission tariffs to provide for consideration of public policy; (3) remove from their tariffs a federal right of first refusal for certain new transmission facilities; and (4) improve coordination between neighboring transmission planning regions.

The Final Order comes as state renewable portfolio standards and the upcoming U.S. Environmental Protection Agency (EPA) regulations for coal power plants may drive demand for new transmission lines. The uncertainty regarding the implications for generation resources of upcoming EPA regulations has caused some utilities to delay decisions on building new generation, with plans to satisfy (at least interim) power needs from power markets until the regulatory clarity they seek is provided.

This report analyzes recent developments concerning transmission cost allocation leading up to Order No. 1000, as well as the contents of the order and their potential impact on the transmission planning process in the future. FERC acknowledges that some key questions may only be answered in the compliance filing process.

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Introduction

Construction of new long-distance transmission lines has become a hotly debated energy policy issue. Advocates see enhancements to the transmission grid as necessary for exploiting remote sources of renewable power and improving the reliability of the transmission system. Others argue that there are less costly and intrusive means of meeting energy needs than a large transmission build-out.

Estimates of the cost of expanding the transmission grid to increase renewable power delivery and other goals run into the tens of billions of dollars. For example (all figures in nominal dollars):

- The estimated transmission cost of the Joint Coordinated System Plan to bring Great Plains wind power to the East Coast ranges from $49 billion to $80 billion.[1]
- A Department of Energy (DOE) study of expanding the use of wind power estimated transmission expansion costs of $60 billion by 2030.[2]
- A study of transmission funding requirements for all purposes for the period 2010 to 2030 estimated total costs of about $300 billion.[3]
- The North American Electric Reliability Corporation (NERC) identified 39,000 circuit-miles of projected high-voltage transmission over the next 10 years, with roughly one-third of these transmission facilities used to integrate variable and renewable resources.[4]

Perhaps the most contentious transmission financing issue is cost allocation for new interstate transmission lines—that is, determining which customers must bear the costs of building and operating new transmission lines that cross several states. This report provides background and analysis of current transmission cost allocation policy and issues. The balance of the report is organized as follows:

- Background and history, including a discussion of federal authority under the Federal Power Act.
- Cost allocation policy at the federal and state levels in the years prior to the adoption by the Federal Energy Regulatory Commission (FERC) of Order No. 1000.[5]
- A review of the transmission planning and cost allocation reforms in Order No. 1000.

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[1] Executive summary to the Joint Coordinated System Plan 2008, p. 6, http://www.jcspstudy.org/. Note that the cost of the transmission is modest compared to the estimated cost of the generation needed to meet demand and, in one scenario, renewable energy goals ($674 billion to $1,050 billion).

[2] U.S. Department of Energy, *20% Wind Energy by 2030*, Washington, D.C., July 2008, p. 98, http://www1.eere.energy.gov/windandhydro/pdfs/41869.pdf.

[3] Marc Chupka et al., *Transforming America's Power Industry: The Investment Challenge 2010 - 2030*, prepared by the Brattle Group for The Edison Foundation, Washington, DC, November 2008, p. 40, http://www.eei.org/ourissues/finance/Documents/Transforming_Americas_Power_Industry.pdf.

[4] North American Reliability Corporation, *2010 Long-Term Reliability Assessment*, October 2010, http://www.nerc.com/files/2010%20LTRA.pdf.

[5] Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, Order No. 1000, 76 FR 49,842 (August 11, 2011), 136 FERC ¶ 61,051 (2011).

Background and History

The Federal Power Act

The authority of the Federal Energy Regulatory Commission (FERC) to regulate interstate electricity transmission is derived primarily from Sections 205 and 206 of the Federal Power Act (FPA).[6] Section 205 of the FPA provides that all rates and charges for the transmission of electric energy subject to FERC's jurisdiction, as well as rules and regulations affecting those rates, must be "just and reasonable," and that no public utility's rates may "unduly discriminate" against any customers.[7] FERC's section 205 authority has been characterized as "an essentially passive and reactive" role.[8]

However, Section 206 of the FPA gives FERC a broader and more proactive rate authority:

> Whenever the Commission, after a hearing had upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged or collected by any public utility for any transmission ... subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affecting such rate, charge or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice or contract to be thereafter observed and in force, and shall fix the same by order.[9]

Section 206 thus permits FERC to make changes to existing utility rates, including transmission charges, either on its own initiative or at the request of an interested party. In order to make such changes, FERC must (1) find that the existing rates or practices are unjust, unreasonable, unduly discriminatory, or preferential; and (2) show that its proposed changes are just and reasonable.[10] Section 206 also allows FERC to establish a just and reasonable rule, regulation, or practice "to be thereafter observed and in force," and to "fix the same by order."[11]

The statutory authority found in Section 206 of the FPA gives FERC broad authority to establish a set of general principles to be applied in setting just and reasonable rates upon a finding of unjust, unreasonable, unduly discriminatory, or preferential rates or practices in the industry. FERC has cited its Section 206 authority in promulgating other significant rulemakings related to interstate electricity transmission facilities, including Order No. 2000[12] (providing for the creation of Regional Transmission Organizations to manage electricity transmission grids) and Orders 888[13]

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[6] 18 U.S.C. §824 *et seq*.

[7] 18 U.S.C. §824d(a) and (b).

[8] City of Winfield v. FERC, 744 F.2d 871, 876 (D.C. Cir. 1984).

[9] 18 U.S.C. §824e(a).

[10] Atlantic City Electric Company v. FERC, 295 F.3d 1, 9 (D.C. Cir. 2002) (citations omitted).

[11] 16 U.S.C. §824e(a).

[12] Regional Transmission Organizations, Order No. 2000, 65 FR 809 (January 6, 2000), FERC Stats. & Regs., ¶ 31,089 (1999), *order on reh'g*, Order No. 2000–A, 65 FR 12,088 (March 8, 2000), FERC Stats. & Regs. ¶ 31,092 (2000), *affirmed sub nom.* Public Utility District No. 1 of Snohomish County, Washington, et al. v. FERC, 272 F.3d 607 (D.C. Cir. 2001).

[13] Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, 61 FR 21,540 (May 10, 1996), FERC Stats. & Regs. ¶ 31.036 (1996), *order on reh'g*, Order No. 888–A, 62 FR 12,274 (March 14, 1997), FERC Stats. & Regs. ¶ 31,048 (1997), *order on reh'g*, Order No. 888–B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888–C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom.* Transmission Access Policy Study Group, et al. v. FERC, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom*. New York v. FERC, 535 U.S. 1 (2002).

and 890[14] (requiring utilities to provide open access to transmission facilities and creating a pro forma tariff for utilities to adopt for their transmission services). Most recently, FERC cited its Section 206 authority when it issued Order No. 1000, the order that altered Commission policy on transmission planning and cost allocation.

Development of the Interstate Transmission Grid and FERC Oversight Prior to Order No. 890

FERC's transmission cost allocation activities have often addressed complex projects with one or more of the following types of characteristics:

- May traverse multiple utility service territories and cross the boundaries between power system planning areas.
- May have multiple owners.
- May provide benefits to many and diverse beneficiaries. These beneficiaries may be difficult to accurately identify, and it may be even more difficult to quantify the benefits.

However, cost allocation for these and other transmission lines was less contentious—or at least less visible and pressing at the national level—in the past because of the nature of the industry itself and federal/state regulation of the industry prior to the mid-1990s. Transmission lines were historically constructed primarily by investor-owned utilities subject to traditional cost of service regulation by state utility commissions. These utilities sold a "bundle" of electric power transmission, generation, and distribution services to ratepayers as a single price. Customers in the utility's service area generally paid a share of the costs of transmission investments, whether or not a particular transmission investment was of value to the customer; this universal sharing of expenses is referred to as the "socialization" of costs.

Under this regulatory regime, cost allocation was therefore generally not a complex issue, since the beneficiaries of the transmission service and the customers paying for the services were, in effect, assumed to be the same—the utility's entire set of captive ratepayers. As one analysis points out, the bundling of costs made it possible and acceptable for cost allocation issues to be "swept under the rug."[15]

Cost allocations, and related transmission planning issues, were also less contentious and visible because of the historical development of the electric power grid. Transmission lines were first built in the early 20th century by single utilities to move electricity to population centers from relatively nearby power plants. As generation and transmission technology advanced, the distances increased, but the model of a single entity building lines within its own service territory to supply its own load still predominated. Over time, these local grids began to interconnect, due to utilities building jointly owned power plants and because power companies began to grasp the economic and reliability benefits of being able to exchange power.[16] Nonetheless, this pattern of

[14]Preventing Undue Discrimination and Preference in Transmission Service, Order No. 890, 72 Fed. Reg. 12,266 (March 15, 2007), FERC Stats. & Regs. ¶ 31,241, *order on reh'g*, Order No. 890-A, 73 Fed. Reg. 2984 (January 16, 2008), FERC Stats. & Regs. ¶ 31,261 (2007).

[15] Working Group for Investment in Reliable and Economic Electric Systems (WIRES), *A National Perspective on Allocating the Costs of New Transmission: Investment: Practice and Principles*, September 2007, p. 32, footnote 34, http://www.wiresgroup.com/images/Blue_Ribbon_Panel_-_Final_Report.pdf.

[16] The power grid in the conterminous states now consists of three large interconnections: eastern, western, and ERCOT (covering most of Texas). The linkages between these interconnections are limited and for most purposes the

development did not emphasize the construction of very long-distance inter-regional lines involving multiple owners and jurisdictions, the kinds of projects likely to have difficult cost allocation issues.

Cost allocation issues have become pressing in part because of the restructuring of the electric power generation and transmission industries that began in the late 1970s. The Public Utility Regulatory Policies Act of 1978 and the Energy Policy Act of 1992 had as one of their aims the introduction of competition into generation service. In order to facilitate the ability of non-utility generators to access the transmission grid, in 1996 FERC issued Orders 888 and 889, to establish an open access regulatory regime for the transmission grid.[17] These orders directed transmission owners and operators to open their system to any connected generator or load on a "non-discriminatory" basis (that is, without giving preference to their own generation or load). Rates are to be cost or market based, and rates and conditions of service are to be embodied in an open access transmission tariff (OATT) approved by FERC.

By allowing non-utility generators and loads to use the transmission system, open access broke the formerly rigid link between the entities that built transmission and their captive ratepayers. Now a new transmission line could be used by multiple entities to transmit or receive power. The operational links between utilities and transmission were further weakened by FERC's policy of promoting regional transmission organizations (RTOs) in the 1990s and 2000s. In RTOs, utilities retain ownership of the transmission grid but operational control is exercised by the RTO. The object is to further ensure that the transmission grid is operated in a non-discriminatory fashion to the benefit of all market participants.[18]

The restructuring of the transmission market had several consequences for transmission cost allocation and planning:

- Cost allocation became more complex and contentious because the clear links that existed under traditional regulation between the parties that built, operated, and benefited from new transmission lines were broken.
- Under the traditional regulatory regime, distinctions between transmission additions aimed at improving system reliability and those aimed at reducing the costs of operating the power system (i.e., "economic" projects) had little meaning. In the open access regime the distinction between reliability projects and economic projects became an important one, since each type of project could benefit different groups of customers to different degrees.
- In the open access regime, much of the responsibility for transmission planning shifted from utilities to either RTOs or, in the markets without RTOs, a plethora of other planning organizations built around utilities, generators, and other stakeholders.[19]

three systems can be viewed as operationally independent.

[17] FERC's economic authority extends to "public utilities" engaged in interstate commerce, as defined by the Federal Power Act.

[18] The term independent system operator (ISO) is often used interchangeably with RTO. Strictly speaking, an organization is an RTO only if it has been so designated by FERC, but these organizations operate the same.

[19] Examples of these non-RTO planning organizations include ColumbiaGrid in the northwest (http://www.columbiagrid.org/), CapX 2020 in and around Minnesota (http://www.capx2020.com/), and the North Carolina Transmission Planning Collaborative (http://www.nctpc.org/nctpc/).

FERC Order No. 890

Prior to the adoption of Order No. 1000 in the summer of 2011, FERC's most significant articulation of the principles applicable to transmission cost allocation was Order No. 890, issued by FERC in February 2007. The purpose of the order was to improve the operation of the open access transmission market created by Order Nos. 888 and 889, including establishment of cost allocation procedures as an element of transmission planning.[20]

Order No. 890 established nine transmission planning principles, of which one is "Cost Allocation—a process must be included for allocating costs of new facilities that do not fit under existing rate structures, such as regional projects."[21] This principle was included because FERC found that "[t]he manner in which the costs of new transmission are allocated is critical to the development of new infrastructure. Transmission providers and customers cannot be expected to support the construction of new transmission unless they understand who will pay the associated costs."[22]

A particular concern of FERC was cost allocation for long-distance transmission projects that would cross multiple utility service areas and state jurisdictions. Another concern was the treatment of projects that would yield economic benefits to multiple parties. According to FERC:

> … we are not modifying the existing mechanisms to allocate costs for projects that are constructed by a single transmission owner and billed under existing rate structures. Our intent is not to upset existing cost allocation methods applicable to specific requests for interconnection or transmission service under the pro forma OATT. *The cost allocation principle discussed herein is intended to apply to projects that do not fit under the existing structure, such as regional projects involving several transmission owners or economic projects*….[emphasis added][23]

FERC chose to leave transmission owners and operators with significant but not unlimited latitude in establishing cost allocation policies. On the one hand, FERC stated that it "will not

[20] The objectives of Order 890 were to amend "the regulations and the pro forma open access transmission tariff adopted in Order Nos. 888 and 889 to ensure that transmission services are provided on a basis that is just, reasonable and not unduly discriminatory or preferential. The final rule is designed to: (1) strengthen the pro forma open-access transmission tariff, or OATT, to ensure that it achieves its original purpose of remedying undue discrimination; (2) provide greater specificity to reduce opportunities for undue discrimination and facilitate the Commission's enforcement; and (3) increase transparency in the rules applicable to planning and use of the transmission system." Preventing Undue Discrimination and Preference in Transmission Service, FERC Order No. 890, 72 Fed. Reg. 12266 (March 15, 2007), FERC Stats. & Regs. ¶ 31,241, order on reh'g, Order No. 890-A, 73 FR 2984 (January 16, 2008), FERC Stats. & Regs. ¶ 31,261 (2007), order on reh'g and clarification, Order No. 890-B, 73 FR 39092 (July 8, 2008), 123 FERC ¶ 61,299 (2008), order on reh'g, Order No. 890-C, 74 FR 12540 (March 25, 2009), 126 FERC ¶ 61,228 (2009), order on clarification, Order No. 890-D, 74 FR 61511 (November 25, 2009), 129 FERC ¶ 61,126 (2009).

[21] The other eight principles are (1) Coordination—the process for consulting with transmission customers and neighboring transmission providers; (2) Openness—planning meetings must be open to all affected parties; (3) Transparency—access must be provided to the methodology, criteria, and processes used to develop transmission plans; (4) Information Exchange—the obligations of and methods for customers to submit data to transmission providers must be described; (5) Comparability—transmission plans must meet the specific service requests of transmission customers and otherwise treat similarly-situated customers (e.g., network and retail native load) comparably in transmission system planning; (6) Dispute Resolution—an alternative dispute resolution process to address both procedural and substantive planning issues must be included; (7) Regional Participation—there must be a process for coordinating with interconnected systems; (8) Economic Planning Studies—study procedures must be provided for economic upgrades to address congestion or the integration of new resources, both locally and regionally. *Id.*

[22] FERC Stats. & Regs. ¶ 31,241 at P 496.

[23] *Id*. at P 558.

impose a particular allocation method for such projects, but rather will permit transmission providers and stakeholders to determine their own specific criteria which best fit their own experience and regional needs."[24] On the other hand, FERC did conclude that "some overall guidance [on cost allocation] is appropriate."[25] FERC's overriding premise was that "'[a]llocation of costs is not a matter for the slide-rule. It involves judgment on a myriad of facts. It has no claim to an exact science.'"[26] FERC would therefore "allow regional flexibility in cost allocation and, when considering a dispute over cost allocation, exercise our judgment by weighing several factors."[27] Three factors were listed by FERC:

> First, we consider whether a cost allocation proposal fairly assigns costs among participants, including those who cause them to be incurred and those who otherwise benefit from them. Second, we consider whether a cost allocation proposal provides adequate incentives to construct new transmission. Third, we consider whether the proposal is generally supported by state authorities and participants across the region.
>
> These three factors are interrelated. For example, a cost allocation proposal that has broad support across a region is more likely to provide adequate incentives to construct new infrastructure than one that does not. The states, which have primary transmission siting authority, may be reluctant to site regional transmission projects if they believe the costs are not being allocated fairly. Similarly, a proposal that allocates costs fairly to participants who benefit from them is more likely to support new investment than one that does not. Adequate financial support for major new transmission projects may not be obtained unless costs are assigned fairly to those who benefit from the project.[28]

Examples of Cost Allocations Under Order 890

The transmission planning processes required by Order 890 were generally filed by utilities and RTOs (in the form of amendments to their OATTs) by December 7, 2007. The processes were usually accepted by FERC as filed or accepted with requirements for amendment to ensure compliance with Order 890's planning principles. Several examples are shown below to illustrate the diversity of approaches used throughout the nation. Although most of these approaches involve a combination of beneficiary pays (also referred to as "participant funding") and socialization of costs, the details are wholly dissimilar. While Order No. 1000 (discussed in detail later in this report) has been adopted recently, FERC will continue to allow the regions to define their own allocation methods. Therefore, the methods briefly summarized here are useful examples of the methodology that may carry over to filings in compliance with Order No. 1000.

PJM Interconnection[29]

The cost allocation process established by PJM and approved by FERC allocated costs in terms of the physical characteristics and purpose of the proposed transmission line:

[24] *Id*.

[25] *Id*. at P 559.

[26] *Id*. at P 559, citing *Colorado Interstate Gas Co. v. Federal Power Commission*, 324 U.S. 581, 589 (1945).

[27] *Id*.

[28] *Id*. at P 560. See also FERC's *Transmission Planning Process Staff White Paper*, August 2, 2007, pp. 17-19, http://www.ferc.gov/industries/electric/indus-act/oatt-reform/order-890/white-paper.pdf.

[29] PJM is the RTO covering a large area centered around the mid-Atlantic region of the United States. "PJM" originally stood for Pennsylvania, New Jersey and Maryland, but the RTO now encompasses all or part of 13 states and the District of Columbia.

- The cost of projects planned by individual utilities to meet local needs rather than system-wide needs are to be charged to the customers in the zones of PJM that benefit (i.e., beneficiary pays).
- Beneficiaries are also to pay for new projects with a rating of less than 500 kilovolts (kV). FERC directed PJM and its customers to develop a standard methodology for allocating the costs of such projects.
- For "backbone" transmission projects with a rating of 500 kV or greater—that is, the proposed lines with the greatest capability to move large amounts of electricity—costs would be socialized throughout the PJM Interconnection (i.e., all customers within PJM would pay a portion of the costs of the facilities, regardless of their location relative to where the upgrades were made, on the assumption that all customers would benefit from these "backbone" upgrades).[30]

The socialization of the costs of 500 kV and greater facilities was controversial from the outset; for example, the Illinois utility commission reportedly characterized it as "not only unjust and unreasonable, but patently irrational."[31] On August 6, 2009, the United States Court of Appeals for the Seventh Circuit, in response to petitions filed by the Ohio and Illinois utility commissions, rejected PJM's cost socialization approach and remanded the issue to FERC. The court stated that

> FERC is not authorized to approve a pricing scheme that requires a group of utilities to pay for facilities from which its members derive no benefits, or benefits that are trivial in relation to the costs sought to be shifted to its members.… No doubt there will be *some* benefit to the midwestern utilities just because the network *is* a network, and there have been outages in the Midwest. But enough of a benefit to justify the costs that FERC wants shifted to those utilities? Nothing in the Commission's opinions enables an answer to that question."[32]

This decision is discussed in greater detail below.

New England ISO (NE-ISO)

In NE-ISO the costs of reliability investments with region-wide benefits are paid for by all customers in the RTO. A reported $4 billion in reliability investments have been made and allocated region-wide since 2004. The ISO's rules also provide for cost socialization for economic investments that provide regional benefits, but "[t]hus far [i.e., through November 2009] there have been no Market Efficiency Upgrades determined to be needed through the regional system planning process."[33] This experience illustrates how cost socialization for reliability upgrades can be more easily justified than for economic upgrades. This is because a failure at one point in a regional grid can potentially disrupt the entire system, while an economic upgrade may benefit only a subset of the region, making it harder to justify region-wide cost allocation.

[30] FERC, Order No. 494, *PJM Interconnection LLC*, Dockets EL-05-121-000 and -002, April 19, 2007; PJM Interconnection, Compliance filing in response to FERC Order No. 890, Docket OA08-32, December 7, 2009.

[31] Jason Fordney, "Exelon, Illinois Commission and DP&L Protest PJM Allocation of Upgrade Costs," *Platts Electric Utility Week*, February 9, 2009.

[32] Illinois Commerce Comm'n v. FERC, 576 F.3d 470, 476-477 (7th Cir. 2009) (italics in original) (citations omitted).

[33] FERC Docket AD09-8-000, *Transmission Planning Processes Under Order No. 890*, "Comments of New England Power Pool," November 23, 2009, p. 3.

Florida Power and Light Company (FPL)

FPL follows cost allocation procedures approved by the Florida Reliability Coordinating Council (FRCC), the regional electric grid reliability entity (but not a RTO) covering most of Florida. In brief, a party may be able to recover a portion of its costs for a new transmission project intended to serve incremental load or generation if, among other factors, the upgrade will affect the reliability of the FRCC grid and the transmission owner participates in the FRCC Regional Transmission Planning Process. If these criteria are met, a portion of the costs associated with the project will be split evenly between the customers in the zone with the need for the project and the "sources or cluster of sources" that are creating the need.[34]

Duke Energy Carolinas and Progress Energy Carolinas

These utilities made a joint filing in response to Order 890. Both companies participate in the North Carolina Transmission Planning Collaborative (NCTPC) regional transmission planning process and adopted the organization's standard cost allocation approach. In summary, that approach defines exceptions to the general principle that investments in the transmission grid should be allocated to the initiating utility company and its ratepayers (i.e., beneficiaries pay). One exception is "Regional Reliability Projects" included in the NCTPC planning process. These are projects undertaken by one utility that has region-wide reliability benefits; in this case costs are allocated to other utilities in proportion to the savings each company receives by not having to undertake its own reliability project.

The second exception is Regional Economic Transmission Path projects that reduce the cost of transmission service across two or more utility systems. These are envisioned as projects with multiple participants who will pay the upfront costs of the project. In return the participants will receive back their investment via payments made by the utilities over a period of up to 20 years. The utilities in turn will have the opportunity to recover the cost of these payments from ratepayers.[35] Economic projects must be included in the NCTPC planning process to qualify for this type of cost allocation.[36]

Concluding Comments on Cost Allocation Examples

The examples presented above are only four of the dozens of Order No. 890 cost allocation filings made with FERC. Nonetheless, they do illustrate several points about current cost allocation policy at the federal and state levels. First, there is no uniformity in the cost allocation procedures, and at least to date FERC has declined to go beyond establishing general principles.

Second is the regional focus of all four processes. NE-ISO and PJM are multi-state RTOs and inherently take a regional perspective, but even the FPL, Duke, and Progress Energy processes are tied back to regional transmission planning organizations. This is consistent with FERC's efforts to encourage a regional perspective on transmission planning that incorporates many stakeholders in the planning process. Third, these examples illustrate the complexity involved in socializing transmission costs. The PJM process was rejected by a federal court and remanded to FERC. The NE-ISO process for socializing the costs of economic projects has never been used.

[34] Florida Power & Light Co., Order 890 OATT Compliance Filing – Attachment K, FERC Docket No. OA08-29, December 7, 2009, pp. 14-16.

[35] That is, the utilities involved retain ownership in the project and recover its capital costs from ratepayers.

[36] Duke Energy Carolinas LLC and Progress Energy Carolinas LLC., Order 890 OATT Compliance Filing – Attachment K, FERC Docket Nos. OA08-50 and -51, December 7, 2009, pp. 15 – 16, and the attached "NCTPC Transmission Cost Allocation" statement.

The NCTPC and FPL cost socialization processes for regional reliability upgrades are fairly straightforward, but the NCTPC process for socializing economic project costs involves a multi-step procedure extending for up to 20 years. FPL did not include socialization of economic projects in its filing.

Illinois Commerce Commission v. FERC

The debate over the proper method of allocation of transmission costs has not been confined to the executive and legislative branches of government. In *Illinois Commerce Commission v. FERC*,[37] the U.S. Court of Appeals for the Seventh Circuit heard a challenge to FERC's approval of a cost allocation proposal for certain new transmission facilities in the PJM Interconnection.[38] Two state utility commissions in Midwestern states protested a FERC-approved allocation of transmission costs for the PJM interconnection that required *pro rata* contributions from all utilities in the region; that is, the utilities in the PJM region would increase their rates by a uniform amount sufficient to cover the cost of the new facilities.[39] According to the court, FERC's rationale for this *pro rata* increase was that (1) some of the PJM members entered into similar pro rata cost sharing agreements in the past and would like to continue to allocate costs in that manner; (2) the burden of determining which parties would benefit from the new transmission (and to what degree they would benefit) would be onerous and would likely result in litigation; and (3) that every member of the PJM Interconnection would benefit from the new transmission facilities because the reliability of the entire network would improve.[40]

The court held that the FERC-approved *pro rata* rate increase for recovery of transmission costs was not supported by substantial evidence.[41] The court quickly dispatched FERC's two arguments in favor of the reasonableness of the pro rata rates. According to the court, the fact that previous arrangements among the PJM members had pro rata cost sharing arrangements in the past carried no weight.[42] The court rejected FERC's argument regarding the difficulty of measuring benefits and the likelihood of litigation, because of an absence of evidence of the relative difficulty of assessing the benefits.[43] The court did not dismiss the possibility of such a finding, noting that feasibility concerns can play a role in rate determinations.[44] However, in this instance, the court found that FERC had not offered a sufficient explanation for this factor and the role it played in the rate decision.[45]

The court spent more time addressing FERC's third line of reasoning: that the new transmission facilities would benefit every PJM member, and therefore that the costs should be allocated among all of them. As the court acknowledged, even though the purpose of the new facilities was to satisfy demand for eastern customers in the PJM system, the entire PJM system would benefit from greater reliability as a result.[46] However, the court found that it was possible that such

[37] 576 F.3d 470 (7th Cir. 2009).

[38] The court also heard a challenge to the approved cost allocation method for certain upgrades to existing facilities; however, that discussion is not germane to the subject of this memorandum, and therefore is not discussed here.

[39] 576 F.3d at 474.

[40] *Id.*

[41] *Id*. at 478.

[42] *Id*. at 475.

[43] *Id*.

[44] *Id*.

[45] *Id*.

[46] *Id*. at 476.

secondary benefits could be minor in relation to the costs to customers not in the eastern region expected to benefit directly from the new transmission capacity, and that FERC had not provided any information by which these benefits could be assessed.[47] According to the court:

> [i]f FERC cannot quantify the benefits to the midwestern utilities from new ... lines in the East, but it has an articulable and plausible reason to believe that the benefits are at least roughly commensurate with those utilities' share of the total electricity sales in PJM's region, then ... the Commission can approve PJM's proposed pricing scheme on that basis. But it cannot use the presumption to avoid the duty of "comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party."[48]

The impact of this decision on cost allocation going forward is not entirely clear. On the one hand, as several observers have noted, the case appears to create a new obligation for FERC to reconsider and potentially discard *pro rata* allocation of transmission costs.[49] However, the ruling seems to be directed more at FERC's procedural failure to justify the ratemaking than a substantive failure in the application of the law. The court repeatedly mentioned that FERC's arguments in favor of the *pro rata* allocation were dismissed not because such a cost allocation method was unreasonable on its face, but rather because FERC had failed to demonstrate the reasonableness of the rates. Perhaps the most significant restriction on FERC articulated by the Seventh Circuit is that FERC must show reason to believe that the benefits received by the parties are "at least roughly commensurate" with the *pro rata* cost allocation.[50]

Legislative Efforts to Dictate Transmission Cost Allocation Principles

As described above, the FPA's only direction regarding the allocation of transmission costs are that the rates charged for transmission service must be "just and reasonable." This gives FERC broad authority to dictate transmission cost allocation policy, although that authority has its limits, as the *Illinois Commerce Commission* decision demonstrates. However, in recent years Members of Congress have introduced legislation intended to provide a tighter framework for FERC's transmission cost allocation policy.

In the 112th Congress, at least one bill has been introduced that would amend the FPA to specifically address transmission cost allocation. S. 400, introduced on February 17, 2011, by Senator Bob Corker, would amend Section 205 of the Federal Power Act to provide that:

> No rate or charge for or in connection with the transmission of electric energy contained in any filing made [by a public utility] after June 17, 2010 shall be considered just and reasonable unless the rate or charge is based on an allocation of costs for new transmission facilities that is reasonably proportionate to measurable economic or reliability benefits projected, as determined by the Commission, to accrue to the 1 or more persons that pay the rate or charge.

This was not the first legislative effort to adopt principles for transmission cost allocation requiring that costs be allocated in a way that is "reasonably proportionate to measurable economic or reliability benefits." During the 111th Congress, the Senate Committee on Energy

[47] *Id*.

[48] *Id*. at 477.

[49] *Appeals Court Sets Precedent In Rejecting FERC Socialized Grid Costs*, EnergyWashington Week (August 26, 2009).

[50] 576 F.3d. at 477.

and Natural Resources reported out of committee S. 1462, the American Clean Energy Leadership Act. The bill contained an amendment proposed by Senator Corker that would direct FERC to issue a new electricity transmission cost allocation rule that could allow for "allocation of the costs of high-priority national transmission projects to load-serving entities within all or a part of a region, except that costs shall not be allocated to a region, or sub-region, unless the costs are reasonably proportionate to measurable economic and reliability benefits."[51]

When the amendment to S. 1462 was proposed during the 111th Congress, some advocates of new electricity transmission construction expressed concern that it would limit FERC's ability to spread costs widely among all users in a given region.[52] They also argued that the benefits from a new transmission project may accrue over many years and therefore may not presently be "measurable."[53] FERC Chairman Jon Wellinghoff was also critical of the amendment, saying that it would both restrict the Commission's ability to spread transmission costs across the region and also needlessly tie up FERC in litigation over individual transmission cost allocations.[54] Three former FERC chairmen also voiced their disapproval of the amendment, noting in a letter that the amendment could "hamstring" FERC and that the language could jeopardize planned infrastructure investment due to uncertainty about cost recovery.[55]

However, others voiced support for the amendment. A coalition of utilities offered its support, noting that they believe transmission facility costs should be allocated narrowly in order to focus on those receiving clear benefits from the new or upgraded facilities.[56] Their concern was that the broad allocation of costs could result in the subsidization of transmission with mostly localized benefits (for example, Midwest wind power facilities) by those outside the area of direct benefit.[57] Others argued that socialization of transmission costs over wide areas would give long-distance transmission projects an economic advantage over alternatives (such as the local development of renewable power, including off-shore wind farms, and energy efficiency) which might be preferable if the playing field was kept level.[58]

Order No. 1000

After the ruling in *Illinois Commerce Commission v. FERC* and legislative efforts to amend the FPA to direct FERC transmission cost allocation decisions, FERC initiated a rulemaking proceeding to formulate a clearer policy for transmission cost allocation.

Background to the Rulemaking and Initial Comments

FERC initiated Docket AD09-8, *Transmission Planning Processes under Order No. 890*, on June 30, 2009.[59] FERC's first action under this docket, in September 2009, was to hold technical conferences on transmission planning with transmission owners, operators, and other stakeholders

[51] S. 1462 (111th Congress), at §121.

[52] *Transmission Groups Push Senate Cost Allocation Provision Changes*, EnergyWashington Week, (August 12, 2009).

[53] *Id*.

[54] *Wellinghoff Criticizes Corker Transmission Cost Sharing Amendment*, EnergyWashington Week (October 7, 2009).

[55] *Id*.

[56] *Transmission Cost Allocation Fight Intensifies With New Pro-Corker Group*, EnergyWashington Week (November 11, 2009).

[57] *Id.*

[58] *Id.*

[59] Filings under this docket can be accessed through the FERC docket search web page, at http://elibrary.ferc.gov/idmws/docket_search.asp.

in Atlanta, Phoenix, and Philadelphia. Based on these meetings, the Commission concluded that significant issues remained with the effectiveness of transmission planning generally and regional and inter-regional planning specifically; the treatment of certain types of electricity resources in the planning process (such as renewable power); and cost allocation for new transmission projects. In relation to cost allocation, the Commission found that:

> Determining the costs and benefits of adding transmission infrastructure to the grid is a complex process, particularly for projects that affect multiple systems and therefore may have multiple beneficiaries. At the same time, the expansion of regional power markets and the increasing adoption of renewable energy requirements have led to a growing need for transmission projects that cross multiple utility and RTO systems. *There are few rate structures in place today that provide the allocation and recovery of costs for these inter-system projects, creating significant risk for developers that they will have no identified group of customers from which to recover the cost of their investment.* [emphasis added][60]

Following these meetings, FERC signaled, in an October 8, 2009, notice requesting comments on cost allocation and other transmission planning issues, that it may take a more direct approach toward cost allocation processes than in the past. The Commission noted that its "best remaining opportunity to eliminate barriers to new transmission construction may therefore be *to provide greater certainty in its policies for allocating the cost of new transmission facilities, particularly for facilities that cross multiple transmission systems*."[61] The specific questions for which FERC requested comments also provide a window into FERC's thinking. The questions included, among others:

- How can the beneficiaries of a specific project be identified, and should the delineation of beneficiaries include generators in addition to loads? The unstated but concomitant question is how should the level of benefits, and therefore the cost responsibility of different customer groups, be determined? This goes to the heart of the issue raised by the Seventh Circuit's rejection of the PJM Interconnection cost allocation process.[62]
- Should cost allocation processes be designed to cover larger geographic regions? This would seem to raise the contentious issue of whether costs should be allocated over large areas and perhaps interconnection-wide.
- Should cost allocations be static or change over time? This question was posed by FERC as a general issue, and specifically in respect to transmission lines which are initially built with overcapacity in anticipation of demand growth.
- How, if at all, should non-quantifiable costs and benefits be incorporated into cost allocations?[63]

By the end of November 2009 FERC had received 103 sets of comments. The comments manifest a wide range of opinions on how FERC should proceed. For example:

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[60] FERC, Docket No. AD09-8-000, *Transmission Planning Processes Under Order No. 890*, "Notice of Request for Comments," October 8, 2009, p. 5.

[61] *Id*. at 7 (emphasis added).

[62] Illinois Commerce Comm'n v. FERC, 576 F.3d 470 (7th Cir. 2009).

[63] FERC, Docket No. AD09-8-000, *Transmission Planning Processes Under Order No. 890*, "Notice of Request for Comments," October 8, 2009, p. 7-8. An example of a non-quantifiable benefit may be the use of existing transmission right of ways for new or upgraded transmission lines, in order to avoid the time and controversy that can accompany efforts to place lines in new right of ways.

- American Electric Power, a large utility company operating within the PJM, SPP, and ERCOT RTOs, argued for interconnection-wide planning and cost allocation for extra-high voltage transmission lines, to be implemented by a FERC rulemaking.[64]
- Southern Company, a large southeastern utility operating outside of RTOs, rejected the whole notion that problems with transmission planning and cost allocation were inhibiting transmission development. Southern concluded that:

> A significant misconception being promoted by certain aspects of the industry in the name of promoting renewable resources is that the current transmission planning processes and cost allocation methodologies are obstacles to the expansion of the transmission grid. This is not the case. The reason that more inter-regional transmission projects are not being built, at least in the Southeast, is that they have not proven to be economic as compared to other options. As a result, those who would benefit from these projects desire to have other entities subsidize their costs by seeking to mandate the planning of these projects through restructured "top-down" planning processes and through the broad socialization of the costs of such uneconomic transmission projects.[65]

- The New England Power Pool Participants Committee (a committee of stakeholders operating within the NE-ISO) stated that "*it would be helpful for the Commission to provide policy guidance on how it would treat a range of cost allocation options.*" [emphasis in the original][66] However, the committee was opposed to the establishment of interconnection-wide or national cost allocation rules, or to the notion of interconnection-wide cost allocation.[67]
- The Southwest Power Pool RTO suggested that FERC implement standardized rules for inter-regional transmission planning and cost allocation. It also supported the establishment of cost allocation processes across broad areas, such as the Eastern Interconnection.[68] SPP stated that:

> attempts to precisely define benefits are misplaced. The real benefits of a major transmission project, as part of a robust EHV network, over its useful life will never be fully captured in an economic model as there are many benefits that fall outside the scope of economic modeling. While precise analysis may be desirable, the limitations of such analysis must be acknowledged. Moreover, it is important to recognize that doing nothing also has a cost…. Currently, SPP is working to implement a cost allocation method that would even provide more cost sharing for regional projects and simplify the cost allocation.[69]

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[64] FERC Docket No. AD09-8-000, *Transmission Planning Processes Under Order No. 890,* "Comments of American Electric Power Service Corporation," November 23, 2009, pp. 23-24.

[65] FERC Docket No. AD09-8-000, *Transmission Planning Processes Under Order No. 890,* "Initial Comments of Southern Company Services, Inc.," November 23, 2009, p. 3.

[66] FERC Docket No. AD09-8-000, *Transmission Planning Processes Under Order No. 890,* "Comments of New England Power Pool," November 23, 2009, p. 7.

[67] FERC Docket No. AD09-8-000, *Transmission Planning Processes Under Order No. 890,* "Comments of New England Power Pool," November 23, 2009, pp. 7 - 8.

[68] FERC Docket AD09-8-000, *Transmission Planning Processes Under Order No. 890,* "Comments of Southwestern Power Pool, Inc., Regarding Transmission Planning Processes Under Order No. 890," November 23, 2009, p. 12.

[69] *Id*. at p. 13.

- In virtually complete contradiction to the position of SPP, the Electricity Consumers Resource Council (ELCON), an association of industrial electricity users, emphasized that cost allocation should follow a fundamental principal of "beneficiary pays." Rather than viewing the issue of allocating benefits as a stumbling block to transmission project development, ELCON stated that:

  > [A]s FERC notes in the Request [for comments], how to allocate costs is "not a new problem." Indeed, courts have developed a carefully crafted body of law to guide the allocation of the costs of transmission investment, centering on the principle that the beneficiaries of a service are to pay for it.
  >
  > [T]hose who are allocated costs based on actual, demonstrable benefits are less likely to object to the construction of new transmission facilities than those who are allocated costs based on an assumption that they will receive some general, unquantifiable benefit. The "beneficiary pays" model is, therefore, more likely to reduce controversy and assure that future transmission would be built where the costs truly are justified.[70]

The diversity of these comments indicated the lack of agreement on how FERC should have proceeded in respect to cost allocation. In November 2009, at about the same time these comments were filed, a transmission trade group and a consortium of environmental groups filed separate petitions with FERC asking the Commission to establish a rulemaking to set transmission cost allocation standards.[71]

The Final Rule[72]

The rulemaking proceeding culminated with the issuance of Order No. 1000 on July 21, 2011. Order No. 1000 states that the Commission is amending Order No. 890 to ensure that FERC-jurisdictional transmission services are provided at just and reasonable rates, and on a basis that is just and reasonable, and not unduly discriminatory or preferential. The following paragraphs summarize the Final Rule (which becomes effective October 11, 2011) and its major requirements.

Planning Requirements

Order No. 1000 establishes three requirements for transmission planning:

- Public utility transmission providers are required to participate in a regional transmission planning process that satisfies Order No. 890 principles and produces a regional transmission plan.
- Local and regional transmission planning processes must **consider** transmission needs driven by public policy requirements established by state or federal laws or regulations.

[70] FERC Docket AD09-8-000, *Transmission Planning Processes Under Order No. 890*, "Comments of the Electricity Consumers Resource Council" November 23, 2009, pp. 2 and 14.

[71] Peter Behr, "FERC Enters a Maze of Questions About Renewable Energy Transmission," *The New York Times*, November 23, 2009, http://www.nytimes.com/cwire/2009/11/23/23climatewire-ferc-enters-a-maze-of-questions-about-renewa-29763.html?scp=3&sq=Conservation%20Law%20Foundation&st=cse.

[72] *Transmission Planning and Cost Allocation by Transmission*, 136 FERC ¶ 61,051, 76 Fed. Reg. 49,842 (August 11, 2011).

- Public utility transmission providers in each pair of neighboring planning regions must coordinate to determine if more efficient or cost-effective solutions are available.

Order No. 1000 further requires that each transmission provider participate in a regional transmission planning process that includes both a regional cost allocation method for the cost of new transmission facilities selected in a regional transmission plan and an interregional cost allocation method for the cost of certain new transmission facilities located in two or more neighboring transmission planning regions.

Cost Allocation Requirements

Order No. 1000 establishes three additional requirements for transmission cost allocation:

- Regional transmission planning process must have a regional cost allocation method for a new transmission facility selected in the regional transmission plan for purposes of cost allocation. **The cost allocation method must satisfy six regional cost allocation principles.**
- Neighboring transmission planning regions must have a common interregional cost allocation method for a new interregional transmission cost facility that the regions select. **Cost allocation method must satisfy six similar interregional cost allocation principles.**
- Participant-funding of new transmission facilities is permitted, but is not allowed as the regional or interregional cost allocation method unless the individual market participants agree to it.

While FERC declines to specify a standard or preferred methodology in Order No. 1000, it does require each regional or interregional cost allocation method to satisfy six generalized cost allocation principles:

- *Regional cost allocation principle 1:* The cost of transmission facilities must be allocated to those within the transmission planning region that benefit from those facilities in a manner that is at least roughly commensurate with estimated benefits.[73]

  Interregional cost allocation principle 1: The costs of a new interregional transmission facility must be allocated to each transmission planning region in which that transmission facility is located in a manner that is at least roughly commensurate with the estimated benefits of that transmission facility in each of the transmission planning regions.[74]
- *Regional cost allocation principle 2:* Those that receive no benefit from transmission facilities, either at present or in a likely future scenario, must not be involuntarily allocated any of the costs of those transmission facilities.[75]

  Interregional cost allocation principle 2: A transmission planning region that receives no benefit from an interregional transmission facility that is located in

[73] *Id*. at P 622.

[74] *Id.*

[75] *Id*. at P 637.

that region, either at present or in a likely future scenario, must not be involuntarily allocated any of the costs of that transmission facility.[76]

- *Regional cost allocation principle 3:* If a benefit to cost threshold is used to determine which transmission facilities have sufficient net benefits to be selected in a regional transmission plan for the purpose of cost allocation, it must not be so high that transmission facilities with significant positive net benefits are excluded from cost allocation.[77]

  Interregional cost allocation principle 3: If a benefit-cost threshold ratio is used to determine whether an interregional transmission facility has sufficient net benefits to qualify for interregional cost allocation, this ratio must not be so large as to exclude a transmission facility with significant positive net benefits from cost allocation.[78]

- *Regional Cost Allocation Principle 4*: The allocation method for the cost of a transmission facility selected in a regional transmission plan must allocate costs solely within that transmission planning region unless another entity outside the region or another transmission planning region voluntarily agrees to assume a portion of those costs.[79]

  Interregional Cost Allocation Principle 4: Costs allocated for an interregional transmission facility must be assigned only to transmission planning regions in which the transmission facility is located. Costs cannot be assigned involuntarily under this rule to a transmission planning region in which that transmission facility is not located.[80]

- *Regional Cost Allocation Principle 5:* The cost allocation method and data requirements for determining benefits and identifying beneficiaries for a transmission facility must be transparent with adequate documentation to allow a stakeholder to determine how they were applied to a proposed transmission facility.[81]

  Interregional Cost Allocation Principle 5: The cost allocation method and data requirements for determining benefits and identifying beneficiaries for an interregional transmission facility must be transparent with adequate documentation to allow a stakeholder to determine how they were applied to a proposed interregional transmission facility.[82]

- *Regional Cost Allocation Principle* 6: A transmission planning region may choose to use a different cost allocation method for different types of transmission facilities in the regional transmission plan, such as transmission facilities needed for reliability, congestion relief, or to achieve Public Policy Requirements.[83]

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[76] *Id*.

[77] *Id*. at P 646.

[78] *Id*.

[79] *Id*. at P 657.

[80] *Id*.

[81] *Id*. at P 668.

[82] *Id*.

[83] *Id*. at P 685.

> *Interregional Cost Allocation Principle 6*: The public utility transmission providers located in neighboring transmission planning regions may choose to use a different cost allocation method for different types of interregional transmission facilities, such as transmission facilities needed for reliability, congestion relief, or to achieve Public Policy Requirements.[84]

Nonincumbent Developer Requirements

The Final Rule curtails the existing right of first refusal for incumbent transmission providers previously had to build new transmission lines. FERC concludes in Order No. 1000 that retaining a federal right of first refusal for transmission facilities selected in a regional transmission plan for purposes of cost allocation could result in rates for FERC-jurisdictional services that are unjust and unreasonable, or could otherwise result in undue discrimination by public utility transmission providers. This aspect of the Final Rule will not affect any state or local laws or regulations regarding the construction of transmission facilities (including but not limited to siting or permitting), or the following types of projects:

- The transmission facility is not in a regional transmission plan for purpose of cost allocation.
- The transmission facility is not a result of an upgrade to existing transmission facilities, such as a tower change out or reconductoring.
- The new transmission facility has already been subject to a regional process which allows non-incumbent developers to compete with incumbents.

Compliance

Order No. 1000 will take effect on October 11, 2011, 60 days after publication in the *Federal Register*. Each public utility transmission provider is required to make a compliance filing by October 11, 2012, or within 12 months of the effective date of the Final Rule. Compliance filing for interregional transmission coordination and interregional cost allocation must be filed within 18 months of the effective date, that is by April 11, 2013. FERC expects that some RTO regions may submit their existing procedures as being compliant with Order No. 1000's regional cost allocation requirements.

Order No. 1000 does not provide details regarding how FERC might enforce the Final Rule. Public utility transmission providers are given schedules for compliance filings, and revision of OATT schedules to reflect cost allocation methods as transmission providers are required to show that they meet the provisions of the Final Rule. It is possible that potential issues regarding the formation of regions could affect transmission provider compliance.

Specific Observations on the Final Rule

Planning Requirements

The need for transmission planning has traditionally resulted from load growth and the need to connect new power generation resources to load centers. More recently, an increased focus on power markets and reliability has caused discussion on the need for new transmission lines. With Order No. 1000, FERC has issued regulations which seek to add state and federal public policies

[84] *Id.*

as a factor in the decision-making process concerning which transmission projects emerge from planning processes as construction projects. However, FERC's use of the word "consider"[85] with regard to state or federal public policy requirements (i.e., as a factor in the planning process) may not be enough of an imperative to actually push such transmission projects forward.

In the wake of the issuance of the Final Rule, the American Public Power Association (APPA) observed that FERC may already have had the authority to move transmission projects forward which are driven by the needs of load-serving entities (LSEs). APPA believes that transmission planning should also focus on LSE needs as stipulated in the FPA, which by necessity may likely include transmission facilities to access renewable resources as mandated by state RPS requirements and other clean energy resources necessitated by state and federal environmental regulations.[86] APPA refers to section 217(b)(4) of the FPA, which states following:

> The Commission shall exercise the authority of the Commission under this Act in a manner that facilitates the planning and expansion of transmission facilities to meet the reasonable needs of load-serving entities to satisfy the service obligations of the load-serving entities ...

Cost Allocation Requirements

Definition of benefits will likely be key in determinations of cost allocation. Order No. 1000 discusses many different types of potential benefits (e.g., economic, reliability, system-wide, etc.) but does not seek to define specifically what a benefit is. The definition of benefits will lead to the identification of beneficiaries, and thence to the identification of how much and to whom costs will be allocated to. FERC is not prescribing a particular definition of "benefits" or "beneficiaries" in this Final Rule. FERC noted that "[i]n our view, the proper context for further consideration of these matters is on review of compliance proposals and a record before us."[87]

FERC does not propose interconnection-wide cost allocation as a regional allocation method for transmission facilities. The regions will define benefits, and FERC considers at least three primary areas for benefits will be considered—reliability, economics and public policy. Order No. 1000 states there will be no cost allocation where there is no benefit:

> Those that receive no benefit from new transmission facilities, either at present or in a likely future scenario, must not be involuntarily allocated any of the costs of those facilities. That is, a utility or other entity that receives no benefit from transmission facilities, either at present or in a likely future scenario, must not be involuntarily allocated any of the costs of those facilities.[88]

FERC also believes this Final Rule will protect transmission customers from free riders, that is, those who receive benefits without paying for them. Order No. 1000 addresses the "free rider" issue by invoking cost-causation principles:

> In Order No. 890, the Commission recognized that the cost causation principle provide that costs should be allocated to those who cause them to be incurred and those that otherwise benefit from them. We conclude now that this principle cannot be limited to voluntary

[85] Order No. 1000 requires that public utility transmission providers establish a process for identifying those transmission needs driven by Public Policy Requirements that are to be considered in the transmission planning process. *Id.* at P 546.

[86] Inside EPA - CLEAN ENERGY REPORT, *Public Power Says FERC Clean Energy Order Abdicates Legal Requirement*, August 22, 2011, http://cleanenergyreport.com/iwpfile.html?file=aug2011%2Fce08222011_appa.pdf.

[87] 136 FERC at P 624.

[88] *Id*. at P 219.

> arrangements because if it were "the Commission could not address free rider problems associated with new transmission investment, and it could not ensure that rates, terms and conditions of jurisdictional service are just and reasonable and not unduly discriminatory.[89]

FERC is allowing the regions to define themselves, with the caveat that there must be more than one utility in a region. Existing RTOs or ISOs are considered "natural regions that have agreements in place already that will define those regions."[90] FERC expects that these regions will be defined by transmission-owning utilities.[91] It should also be recognized that some RTOs stretch over non-continuous areas, which may lead to some RTO/ISOs or their members being in more than one transmission planning region.

The definition of transmission-owning utility may be a complicating factor as some owners/operators of generation facilities have been designated as transmission owners for reliability purposes.[92] Such entities could also be impacted by aspects of requirements from the Final Rule.

Established regulatory principles may also bear on the definition of benefits, especially if rate recovery extends to state jurisdictions or if states (or portions of states) are considered planning regions. Timing is very important to the definition of benefits, as principles of intergenerational equity may arise. FERC has stated that consideration of public policies should be limited to existing policies. The time frame to which these existing policies apply would likely be used as the limit to the planning horizon for which benefits and their costs could be allocated to beneficiaries based on established "cost-causation" principles. Alternatively, under "used and useful" ratemaking principles, the allocation of costs could be spread over the life of the transmission facility asset itself, and the benefits timeline may be allocated over such a lifespan.

Nonincumbent Developer Requirements

FERC makes a distinction between a transmission facility in a regional plan, and a transmission facility selected in a regional plan for purposes of cost allocation. FERC considers the latter a more efficient/cost-effective solution to regional needs, presumably by virtue of being selected pursuant to a Commission-approved regional planning process, even though there are no standard procedures for a process likely to be approved by FERC. FERC assumes that the region will select the most efficient solution since a cost-allocation scheme has been settled on by transmission owning interests. This distinction also seems to illuminate the partial elimination of a right of first refusal (ROFR) of a transmission provider to build a transmission facility chosen for regional cost allocation. FERC is not preempting any state or local law or regulation that establishes a ROFR, and only eliminates the ROFR in this very limited situation.

Order No. 1000 notes that each transmission provider would be required to amend its OATT if a transmission facility project selected in a regional plan for purposes of cost allocation is delayed.

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[89] *Id.* at P 84.

[90] E&E TV, *FERC - Chairman Wellinghoff discusses commission's challenges in crafting transmission rule*, July 26, 2011, http://www.eenews.net/tv/transcript/1382.

[91] Response to question at FERC briefing on Final Rule. July 22, 2011.

[92] For example, on June 16, 201, FERC denied an appeal by two wind farm generators (Cedar Creek Wind Energy, LLC and Milford Wind Corridor Phase I, LLC.) against a NERC order to register as transmission owners and operators. NERC had ordered the generators to comply with transmission-related reliability requirements applicable to transmission-owners and operators because of high voltage (i.e., above 100 kV) tie-lines interconnecting their generating facilities to the bulk power system. *Cedar Creek Wind Energy LLC, Milford Wind Corridor Phase I, LLC*, 136 FERC P 61,241 (2011).

Local utilities would then be allowed to consider alternative solutions to ensure that reliability needs and service obligations are met.

General Comments

Order No. 1000 is broadly intended to ensure that there is enough transmission capacity to meet future U.S. electricity needs, and provide for the allocation of new costs to build the transmission facilities by "identify[ing] transmission facilities that more efficiently or cost-effectively meet the region's reliability, economic and public policy requirements."[93]

In paragraph 29 of Order No. 1000, FERC cites the expectations of the U.S. Department of Energy and NERC with regard to the expansion of high-voltage transmission lines and facilities, with up to a third of this new transmission capacity intended to serve new variable and renewable energy generation. State renewable energy portfolio standards are seen as a major driver of this new capacity. However, with most of the best regions for wind and solar resources located in the western United States, and many of the load centers and many states with RPS requirements in the eastern part of the country, some observers have discussed the potential for long, interstate transmission lines to carry renewable energy to markets in the east. Order No. 1000 allows for neighboring transmission planning regions to work out interregional plans for state public policies such as RPS requirements. In the absence of a federal renewable energy or clean energy standard, an imperative for a west-to-east, multistate renewable energy transmission line is unlikely, but a segmented build-out of transmission facilities could accomplish a similar goal if benefits to local regions can be shown. In that instance, the technologies and facility designs chosen to accomplish the build out could be crucial to a benefits determination since alternating current transmission lines have the potential for future "on- and off-ramps" to serve load growth along such routes, while direct current transmission lines are limited in that capability.

Federal regulations may reduce the need for states or regions to have their own regulations to address the same or similar issues. As such, federal regulations ease interstate commerce because a multiplicity of state regulations is avoided, especially when the regulations developed in states and regions addressing a specific issue can differ substantially. In Order No. 1000, FERC intends to provide broad guidance on planning transmission facilities and cost allocation, while allowing regions to tailor such arrangements to their own or interregional requirements with consideration given to public policy goals:

> The cost allocation principles are not intended to prescribe a uniform approach, but rather each public utility transmission provider should have the opportunity to first develop its own method or methods. Also, we recognize that regional differences may warrant distinctions in cost allocation methods.[94]

Thus, in providing such discretion, FERC leaves the door open for broad interpretation of the regulations, with the likelihood that a wide variation of plans will result.

FERC states in Order No. 1000 that transmission planners should seek the most efficient and cost-effective ways to meet the transmission needs of regions. Order No. 1000 also identifies a transmission facility selected in a regional plan for cost allocation purposes as a "more efficient or cost-effective solution to regional transmission needs."[95] Sometimes, the optimal location of a power generation facility can ease congestion-related reliability issues, and present a cost effective solution with potential benefits to other regional transmission needs. It is not clear to

[93] Order No. 1000, 136 FERC at P 11.

[94] *Id*. at P 604.

[95] *Id* at P 7.

what extent the regional transmission planners will be required to think broadly and consider a power generation solution when considering Order No. 1000 requirements for the most "efficient or cost-effective solution" to regional power needs.

The Final Order comes as state renewable portfolio requirements and the upcoming U.S. Environmental Protection Agency (EPA) regulations for coal power plants[96] may increase demand for new transmission lines. The uncertainty regarding the implications for generation resources of upcoming EPA regulations has caused some utilities to delay decisions on building new generation, with plans to satisfy (at least interim) power needs from power markets until the regulatory clarity they seek is provided. Some commenters expect that shortfalls in transmission capacity in some regions of the United States may have possible impacts on reliability resulting from these additional needs. State public utility commission decisions authorizing new power plants in rate base to replace retired coal plants will likely impact regional transmission planning decisions.

There are many issues and many questions beyond those discussed in this report which will likely arise as the many different stakeholders involved move to understand and satisfy their obligations under the Final Rule. FERC acknowledges that some key questions may only be answered in the compliance filing process.

Update on Order 1000

FERC issued Order 1000-A[97] on May 17, 2012, to deny many rehearing requests for its Order 1000, affirming that all jurisdictional electric transmission providers must comply with Order 1000's requirements to participate in regional and interregional planning processes for planning new transmission facilities. Transmission cost allocation methods specified in Order 1000 are to be employed for these new transmission facilities.

FERC subsequently issued Order 1000-B[98] on October 18, 2012, to uphold its previous Orders 1000 and 1000-A, and to make clarifications to its rule. FERC again denied any requests for rehearing of Order 1000 or Order 1000-A.

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[96] CRS Report R41914, *EPA's Regulation of Coal-Fired Power: Is a "Train Wreck" Coming?*, by James E. McCarthy and Claudia Copeland.

[97] 139 FERC ¶ 61,132.

[98] 141 FERC ¶ 61,044.

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