

Electric Transmission Policies

Summary

The Federal Energy Regulatory Commission (FERC or Commission) administers the Federal Power Act (FPA), the law governing the bulk transmission system. The amendments made to the FPA by the Energy Policy Act of 2005 (EPAct05) were intended to promote transmission development, but the results have been disappointing. For its part, FERC has attempted to facilitate appropriate transmission planning and development in orders issued over the past decade addressing regional and interregional transmission planning and cost allocation, integration of intermittent generation into the bulk electric grid, and applicability of open season and open access rules to merchant transmission projects and transmission built to support specific generation projects.

State and local governments generally regulate the electric distribution system (the hundreds of thousands of miles of lower-voltage lines that provide power to homes and businesses) and the electric utilities that own and operate these facilities. However, some proposals in Congress and actions by FERC have sought to encroach on state and local authority in recent years. This regulatory tension between states/localities and the federal government will continue, especially as the federal government seeks to promote new technologies, such as smart grids and distributed energy resources, and to expand its authority over electric system reliability.

The American Public Power Association (APPA or Association) believes that new bulk transmission facilities are needed. Siting constraints and cost allocation (who pays) continue to be the major impediments to getting new beneficial transmission facilities built. And while significant transmission investment is occurring in some regions, stakeholders have limited opportunity to participate in the planning process for many of these projects to ensure that customers will benefit. FERC must also be diligent in adopting and enforcing policies ensuring that transmission costs paid by consumers are just and reasonable, as required by the FPA. APPA also believes that regulation of the vast and enormously complex distribution systems owned and operated by close to 3,000 utilities nationwide should continue to reside with state and local governments.

Background

Once electricity is generated, it travels over high-voltage bulk power transmission lines from the generating unit to the area where it will be consumed. The electric transmission network in the U.S. is organized into three “interconnections”—very large bulk power transmission grids that operate in sync and that must be carefully coordinated at every moment to prevent blackouts. The three are the Eastern Interconnection (covering the eastern two-thirds of the U.S. and Canada), Western Interconnection (covering the western U.S. and Canada), and Electric Reliability Council of Texas (ERCOT, covering most, but not all, of Texas). These interconnections set electrical boundaries. Electrons flow freely within them, but do not flow freely between them. There are a few places where the interconnections do connect with each other, but power flows at these points are carefully controlled. FERC is the regulatory agency tasked with overseeing the interstate transmission grid, using its authority under the FPA. Because the ERCOT interconnection in Texas is wholly intrastate, FERC does not regulate the bulk transmission lines in ERCOT; rather, the Public Utility Commission of Texas provides that oversight.

Electricity must be produced and consumed in real time. Electricity currently cannot be stored economically in significant amounts (although advanced storage technologies are being developed), and for practical purposes, most electricity generation and consumption must be balanced continuously. Otherwise, blackouts can result. Once electrons flow from the generating unit to the bulk power grid, their path generally cannot be dictated. Electrons follow the path of “least impedance,” meaning they will go where their movement meets the least resistance. The path of least impedance is determined on an instantaneous basis by the laws of physics and a complex interplay of the capacity of transmission lines to move electrons, the location of the generation, and the amount of electricity consumed by homes, factories, and businesses located at different points along the grid at that particular moment.

Specific electrons cannot be delivered to a specific place on the interconnected grid. For example, if Utility “A” buys power

from the owner of Generator “B,” Generator B will deliver the power to the point where the generator’s plant connects to the grid and Utility A will receive the power it needs from a different point on the grid. The electrons that Utility A uses to provide power to end-use customers are likely a mix of electrons from Generator B and many other generators, all using different fuels and technologies. However, Utility A will still receive power and Generator B will still be paid. Problems with the transmission wires or multiple generator outages would impede the ability of Utility A to receive electricity, even if Generator B were operating smoothly. Thus, a regional transmission grid is like an ecosystem; everyone who uses it is affected by everyone else’s actions (or lack of actions).

Consumers do not receive power directly from the transmission system. Bulk power transmission facilities transmit electricity to local electric distribution systems. Just as cars traveling on the interstate highway system need to exit and travel on a system of smaller roads to reach their destinations, lower voltage electric distribution systems interconnect with the bulk power transmission systems in their regions to deliver electricity to end-use consumers—industry, homes, and businesses. The wires at the very top of utility poles in a residential neighborhood are distributing electricity to customers. In many cities and suburbs, electric distribution wires are buried in underground conduits. Utility workers gain access to these wires through maintenance holes that dot a typical city street. And increasingly, electricity is being generated at the distribution level, increasing two-way flows on distribution wires. As mentioned earlier, these distribution systems are regulated by state and local governments.

Congressional and FERC Action

The last time Congress enacted any major changes to the FPA was in EAct05. Several changes to the law were made, including provisions for the granting of additional transmission rate incentives beyond the basic rate of return granted by FERC to all owners of bulk transmission lines. These incentives were to be granted for lines that presented higher levels of risk—for example, because they were unusually difficult to site or finance—but they became the rule rather than the exception. FERC in 2011 started a proceeding to examine its transmission rate incentive policy and released a policy statement revamping its policy in 2012, which APPA supported. Under this policy, FERC appears to be more carefully scrutinizing requests for transmission rate incentives, thereby reducing the potential for the unnecessary granting of such incentives, and the resultant additional costs to electric consumers. In March 2019, however, FERC issued a wide-ranging notice of inquiry (NOI) on its electric transmission incentives policy. The new NOI indicates that FERC may be considering revisions to its current incentives policy.

The return on equity (ROE) is a major expense component included in cost-based electric transmission rates. In 2013, some entities began a new effort to get FERC to keep transmission ROEs at pre-2008 levels, despite a substantial drop in interest rates and investor returns since that time. Despite this pushback, FERC, in June 2014, revised its method for determining base ROEs in Opinion No. 531 and began to establish hearings to determine new and likely lower ROEs in a substantial number of pending and newly filed transmission rate cases. Many of these cases are still pending before the agency. An April 2017 ruling by the U.S. Court of Appeals for the D.C. Circuit, however, remanded FERC’s Opinion No. 531 back to the agency. In response to the court’s decision, FERC proposed to further revise its method for calculating the base ROE for transmission assets, which could result in higher allowed returns. Further, as a companion to its NOI on transmission incentives, FERC issued a NOI in March 2019 soliciting industry comments on its current policies for setting the base ROE included in transmission rates.

EAct05 also amended the FPA to give FERC authority to ensure that entities like public power utilities, which are not directly subject to FERC rate oversight, that own or operate bulk transmission facilities, provide transmission service on those facilities in a non-preferential manner—under rates and conditions comparable to those they would provide to themselves.¹ FERC, in its Order No. 1000 rulemaking, declined to use its authority under this new section of the FPA to directly impose that order’s transmission planning and cost-allocation requirements on public power utilities, and the U.S. Court of Appeals for the D.C. Circuit upheld that decision. But in December 2011, FERC used this new FPA authority to order the Bonneville Power Administration (BPA), whose transmission grid FERC does not generally regulate, to provide “comparable” transmission service to certain wind generators on BPA’s transmission system. APPA and other parties sought rehearing of this order on the grounds that it was an inappropriate use of FERC’s statutory authority in this area, but FERC denied the rehearing requests in an order at the end of 2012. The Association joined a Ninth Circuit petition for review of FERC’s orders in the BPA proceeding, but on August 10, 2015, the court denied those petitions.

EAct05 also instituted new federal backstop siting authority that would have allowed FERC to step in under certain circumstances to site transmission lines if states did not act. FERC can use this authority only in corridors established by the Department of Energy based on areas of congestion in the bulk transmission grid. Attempts in Congress have been made to

¹ Public power utilities are not directly subject to FERC rate oversight because they are already regulated at the state and local government level.

repeal this provision since 2005, but they have failed. However, legal decisions from the U.S. Courts of Appeal for the Fourth and Ninth Circuits have rendered this authority of little practical use.

FERC and Congress have continued to examine the impact of the agency's electric transmission regulations and policies. FERC convened a technical conference in June 2016 to consider several issues related to transmission development in the wake of FERC's Order No. 1000 issued in 2011, although it has yet to take any specific action based on that conference. FERC's March 2019 NOI on transmission incentives, however, could result in changes to the Commission's transmission development policies, including changes to the types of projects that FERC will seek to promote through incentives. In 2018, the Senate Energy & Natural Resources and House Energy & Commerce Committees held oversight hearings to examine a host of transmission-related issues, such as equity return incentives, Order No. 1000, and other challenges associated with maintaining existing infrastructure, and siting and construction of new lines.

The main policy areas involving transmission are:

Siting

Because court decisions have undercut the federal government's limited backstop authority to site transmission, states have a major role in siting new transmission. Public opposition to the siting of new lines is the most significant hurdle to getting necessary transmission built. On federal lands, the many approvals needed from different federal entities can also create very substantial delays.

Rising Transmission Costs

In some regions, particularly those in which regional transmission organizations and independent system operators supervise transmission system operation and planning, transmission costs have risen significantly over the past several years, imposing a significant burden on transmission customers, including many public power utilities. While there are legitimate reasons for many of these costs, such as accommodating new renewable generation and upgrading aging infrastructure, APPA believes that FERC must be diligent in adopting and enforcing policies that ensure transmission rates are reasonable. FERC should ensure, for example, that proposed transmission projects receive adequate scrutiny in regional transmission planning processes and that the authorized equity returns included in cost-based transmission rates are not excessive. Incentives must be carefully designed to encourage beneficial transmission investment and should not be greater than needed to achieve the desired result.

Cost Allocation

Who pays for a new transmission line also is a very difficult issue, as there are often benefits to bringing transmission lines onto the grid that extend beyond the immediate beneficiaries. This is because the grid is like a large machine, which in some cases can often be improved by making small additions and improvements to one part. APPA believes that a plausible reason should exist to believe that the benefits received from a regionally allocated transmission project will be roughly commensurate with the costs to be assigned. Moreover, in allocating regional transmission costs, FERC should be sensitive to differences in state policies.

Joint Ownership

Some of the problems involved in regional planning, transmission cost, and cost allocation could be resolved if new transmission lines were jointly owned, with some partial ownership by public power utilities where feasible. While there are areas of the country in which joint ownership is common, it is the exception rather than the rule in others, generally because of resistance by incumbent transmission owners.

Regional Planning

Transmission projects approved for regional cost allocation must be the result of a coordinated, open, and transparent regional planning process, as required by FERC's Order No. 1000. Such processes shall identify: (a) the need for the proposed project; (b) the anticipated benefits of the proposed project; (c) the anticipated beneficiaries of the proposed project; and (d) the estimated cost of the project. FERC should also ensure the transmission needs and resource plans of load-serving entities with service obligations to retail customers are considered in regional planning processes, as section 217(b)(4) of the FPA requires.

Transmission for Renewables

Renewable generation sites are often located remotely from population centers, making new and longer transmission lines necessary to access that generation. However, because the wind does not always blow, and the sun does not always shine, other types of generation or demand-side resources must be available to balance out those intermittent resources—or else the lights could go out due to an imbalance of energy on the grid. This makes it even more important to plan regional transmission facilities based on the actual resource plans and needs of the load-serving entities in the region.

American Public Power Association Position

One of the most significant impediments to getting needed transmission built continues to be the siting of the lines. The EPCRA05 siting authorities were a major step forward (until they were undercut by subsequent court decisions), and should be supported, clarified, and protected from repeal. Further, to ease local and state opposition to siting transmission lines, as many regional electricity stakeholders as possible should be included in their planning and ownership, and regional transmission planning should focus on the resource plans of load-serving entities, as FPA section 217(b)(4) directed. APPA would support legislation to implement these requirements in existing regional and interregional transmission planning processes. Congress should also encourage and support joint ownership of transmission and eliminate financial barriers to such ownership, such as private-use restrictions on tax-exempt financing. In addition, the Association believes that the regulation of distribution systems should continue to reside exclusively with state and local governments.

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The American Public Power Association is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. We represent public power before the federal government to protect the interests of the more than 49 million people that public power utilities serve, and the 93,000 people they employ. Our association advocates and advises on electricity policy, technology, trends, training, and operations. Our members strengthen their communities by providing superior service, engaging citizens, and instilling pride in community-owned power.